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TRINITY PEPTIDES LLC

A RESEARCH GUIDE TO PEPTIDES

89 PEPTIDES • 8 COMBINATIONS
PLAIN-ENGLISH RESEARCH GUIDE

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Colophon & How to Use This Guide

ABOUT THIS GUIDE

Trinity Peptides Explained is a plain-English companion to the Trinity Peptides Research Guide, published by Trinity Publishing. It covers the same 89 research compounds and 8 combination products, rewritten so a reader with no science background can follow along, one topic at a time.

HOW EACH ENTRY IS ORGANIZED

Every peptide is explained in nine simple steps: what it is, what it does, why researchers are interested, what human studies show, what animal research shows, side effects, experimental research doses, what the online research community is saying, and what doses that community discusses. Combination products follow a shortened seven-step version of the same format.

EVIDENCE VS. DISCUSSION

This guide clearly separates published research (human and animal studies) from online community discussion (forums, social media, and biohacking communities). Community discussion is not scientific proof — it simply reflects what people say online, including claims that are unproven or controversial.

DISCLAIMER

This publication is educational only. It is not medical advice and does not recommend, prescribe, or endorse the use of any compound discussed. All doses mentioned are drawn from published research or public online discussion and are cited for educational context only — never as a recommendation. Readers must independently verify current legal status before any research use.

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SECTION 01

Growth / Endocrine

15
COMPOUNDS

Growth-hormone secretagogues, IGF analogues, and endocrine-axis peptides studied for their effects on growth, body composition, and repair signaling.

ACE-031 · No. 01

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
1 mg	$84	$420

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

ACE-031 (also called ramatercept) is not really a "peptide" in the classic sense — it's a lab-made protein built by fusing part of a natural receptor (called ActRIIB) onto part of a human antibody. Think of it as a decoy: it's built to look like a docking station that certain "stop-growing" signals in the body attach to, so it can soak those signals up before they reach real muscle cells (Cadena et al. review, PMC). It's not related to growth hormone at all — it's a completely different type of molecule. It was created by scientists studying muscle-wasting diseases, hoping to help people grow muscle by blocking the body's natural muscle-growth brakes.

WHAT DOES IT DO?

Your muscles have a natural "brake pedal" hormone called myostatin (and some related molecules) that tells muscle cells to stop growing once they've grown enough. ACE-031 works like a sponge that soaks up myostatin and similar molecules before they can push that brake pedal, so muscles get less of a stop signal and can grow more. The problem is that the same docking station ACE-031 mimics is also used by other signals that keep blood vessels healthy and stable — so when ACE-031 blocks those too, it can accidentally cause blood vessel problems (Cadena et al. review).

WHY ARE RESEARCHERS INTERESTED?

Researchers were interested in ACE-031 mainly for muscle growth — specifically because it showed it could increase lean (non-fat) body mass and muscle size in a clinical study. It was also being explored as a possible treatment to help preserve muscle in kids with Duchenne muscular dystrophy, a serious muscle-wasting disease.

WHAT DO HUMAN STUDIES SHOW?

There have been two real human studies. The first was in 48 healthy older women who received different doses under the skin. At the highest dose, people gained about 3.3% more lean body mass and about 5.1% more thigh muscle (measured by scans) after about a month — a real, measurable effect (Attie et al., Muscle Nerve 2013). The second study tried it in boys with Duchenne muscular dystrophy, but doctors had to stop the study early because some boys got nosebleeds and small red spidery blood vessel marks on their skin. No one had a severe reaction, but because of this the study never showed whether it actually helped the boys walk or move better (Campbell et al., Muscle Nerve 2017). No study has ever shown ACE-031 helps healthy people build muscle for fitness or sports purposes.

ANIMAL RESEARCH

The existing profile data does not report separate animal study results for ACE-031 — the available evidence comes only from the two human trials described above.

SIDE EFFECTS

In the healthy-volunteer study, people mostly noticed redness where they were injected. In the study with boys who have muscular dystrophy, the more serious issue was nosebleeds and small red/purple skin marks caused by tiny blood vessels becoming fragile — this is why researchers stopped giving more doses (Attie et al. 2013; Campbell et al. 2017). Scientists think this happens because ACE-031 also blocks other signals (called BMP9/BMP10) that keep blood vessels stable. There's no information about what happens if someone uses it for a long time, since no study ran that long.

EXPERIMENTAL RESEARCH DOSES

In the healthy-volunteer study, people were given single doses under the skin ranging from about 0.02 to 3 milligrams per kilogram of body weight, and the drug stayed active in the body for a long time — roughly 10 to 15 days (Attie et al. 2013). In the muscular dystrophy study, boys received increasing doses every 2 to 4 weeks, but dosing was stopped after the second dose level because of the bleeding side effects. This is purely what was studied in research — not a suggested amount for anyone to use.

WHAT IS THE RESEARCH COMMUNITY SAYING?

There is some real discussion of ACE-031 in online peptide communities, mainly on Reddit. One person who tried it as part of a larger peptide "stack" (combined with IGF-1, Ipamorelin, CJC-1295 no DAC, and kisspeptin) reported gaining about 4 pounds over a couple weeks, mostly appearing to be lean mass, and improved muscle tone — but also mentioned overheating and exhaustion during workouts, days of pain at the injection site, odd sensations in nearby limbs, and no real strength increase. They ultimately concluded the small changes they saw were probably from the other ingredients (like IGF-1) and extra calories, not ACE-031 itself, and decided not to continue using it (r/Peptides thread). Other commenters in the same thread suggested the dose used (1 mg per week) was far too low to expect visible results. Overall, discussion of ACE-031 is much rarer than for common peptides like BPC-157 or CJC-1295, and the one detailed report available was mixed and inconclusive.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

The one detailed community report found used ACE-031 at 1 milligram roughly every 4-5 days, with a commenter suggesting even that might be too low to see real results, while another said they would try half a milligram per week (r/Peptides). There isn't enough public discussion to identify a clear "lowest, most common, and highest" range the way there is for more popular peptides. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

GROWTH / ENDOCRINE · NO. 02

CJC-1295 (No DAC) · No. 02

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
2 mg	$25	$125
5 mg	$40	$200
10 mg	$70	$350

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

CJC-1295 (No DAC) is a lab-made version of a natural hormone signal called GHRH — the message your brain sends to your pituitary gland telling it "release some growth hormone now." Scientists tweaked the natural hormone's chemical structure in four spots so that it breaks down more slowly in the body. It's also known as "Mod GRF 1-29." Importantly, this is a completely different molecule from "CJC-1295 with DAC" even though they share a name — this version does not have the sticky add-on (DAC) that makes the other version last much longer (Jetté et al., Endocrinology 2005).

WHAT DOES IT DO?

Imagine your pituitary gland (a small gland at the base of your brain) is a factory that makes growth hormone. GHRH is like a phone call telling that factory "make more now." CJC-1295 (No DAC) mimics that phone call, attaching to the same receiver (a receptor) on the factory's cells and triggering it to release more growth hormone in a natural, pulse-like way, similar to how your body normally does it. Because it still works through your brain's normal checks and balances, it doesn't completely override your body's natural control system the way giving pure growth hormone would.

WHY ARE RESEARCHERS INTERESTED?

Researchers are interested in the class of GHRH-mimicking peptides for growth-related purposes, including potential effects on muscle growth and general body composition, since raising growth hormone and its related signal IGF-1 is linked to those areas. However, for this exact molecule (the no-DAC version) there is no direct human trial data confirming these effects — the profile notes claims about it are largely theoretical or based on the related DAC version.

WHAT DO HUMAN STUDIES SHOW?

This is the important part: no human clinical trial of this exact no-DAC version has ever been published. All the solid human data that exists (about how long it lasts in the body, how strongly it raises growth hormone, and side effects) comes from the DAC version, which behaves very differently in the body because of its sticky add-on. Scientists say you cannot assume the no-DAC version acts the same way just because it's chemically related (Teichman et al., JCEM 2006). Anything you read online about how fast this specific version works (like a "30-minute" duration) is based on guesses and community reports, not verified science.

ANIMAL RESEARCH

The source data reports lab-dish (not live-animal) testing showing the modified GHRH structure is more stable and better at triggering growth hormone release than the natural, unmodified hormone (Jetté et al. 2005). No live-animal (rodent) studies specifically testing this no-DAC version were found in the source material.

SIDE EFFECTS

Because no controlled study exists for this exact version, scientists can only guess at side effects based on similar drugs in its class. Expected possibilities include: irritation where you inject it, brief flushing or warmth, headache, water retention (feeling puffy/bloated), joint aches, tingling feelings, and reduced sensitivity to insulin if growth hormone stays elevated for a long time. The related DAC version's studies reported no serious problems, but that can't be assumed to apply here (Teichman et al. 2006).

EXPERIMENTAL RESEARCH DOSES

There is no published, peer-reviewed research measuring exact doses, how long it lasts, or how well the body absorbs this no-DAC version. In research settings, it has generally been given as an injection under the skin or into a vein, based on how similar GHRH-type molecules are studied — but no official dose-response data for this specific peptide exists in the scientific literature.

WHAT IS THE RESEARCH COMMUNITY SAYING?

This peptide is one of the most talked-about in online peptide communities, almost always paired with a partner peptide called Ipamorelin. On Reddit's biohacking communities, one user described 2 months of CJC-1295 (No DAC) plus Ipamorelin (100 micrograms of each, once daily before bed, 5 days on/2 days off) and reported real strength gains starting around week 4, improved recovery with less soreness, noticeably better and deeper sleep (though with more vivid dreams), and a slightly "fuller" and leaner-looking body — with only a brief warm/tingling flush after injecting as a side effect (r/Biohackers). Other forum posts describe similar stacks combined with GHRP-2 or GHRP-6 for muscle and recovery goals. The community consensus seems to be that this no-DAC version is preferred by people who want to mimic natural growth hormone "pulses" rather than one long, steady elevation, and it's very commonly stacked rather than used alone.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community reports commonly describe doses of 100 micrograms once or twice daily (often paired with Ipamorelin at a similar dose), typically injected before bed or before workouts on an empty stomach (r/Biohackers). Some forum guides mention ranges of 100-300 micrograms per injection, taken up to 2-3 times per day. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

CJC-1295 (With DAC) · No. 03

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
2 mg	$40	$200
5 mg	$50	$250
10 mg	$70	$350

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

CJC-1295 (With DAC) is a lab-made, longer-lasting version of the natural brain hormone GHRH, which tells your pituitary gland to release growth hormone. Scientists changed its structure in four spots (like the no-DAC version) but then attached an extra chemical "hook" called DAC (Drug Affinity Complex) that lets the molecule permanently grab onto a common blood protein called albumin. This makes it stick around in the bloodstream for days instead of minutes (Jetté et al., Endocrinology 2005).

WHAT DOES IT DO?

Picture a message-in-a-bottle that normally dissolves in the ocean within minutes. The DAC hook is like gluing that bottle to a giant, slow-moving whale (albumin) that swims through your blood for days. As the whale swims around, the message keeps knocking on your pituitary gland's door, telling it to keep releasing growth hormone — not in quick bursts like your body naturally does, but as one long, steady push that can last a week or more.

WHY ARE RESEARCHERS INTERESTED?

Researchers studied CJC-1295 with DAC mainly for its ability to reliably raise growth hormone and the related hormone IGF-1 in a controlled, long-lasting way. This connects to areas like muscle growth and general body composition, since higher growth hormone and IGF-1 levels are linked to those effects — though no study actually measured muscle gain or fat loss directly, only the hormone levels themselves.

WHAT DO HUMAN STUDIES SHOW?

Two well-designed human studies (randomized and placebo-controlled, meaning some people got a fake shot for comparison) tested this in healthy adults aged 21-61. A single shot raised growth hormone by 2 to 10 times normal levels for up to 6 days, and raised IGF-1 by 1.5 to 3 times for 9-11 days. When people took repeated doses, IGF-1 stayed elevated for up to 28 days. No one had a serious reaction, and the drug was considered pretty well tolerated, especially at moderate doses (Teichman et al., JCEM 2006). Importantly, though, this is the only real human dataset that exists — no study has tested whether it actually helps people build muscle, lose fat, or perform better, and no long-term safety data exist beyond these short trials.

ANIMAL RESEARCH

In rats, the DAC version produced 4 times more growth hormone response over 2 hours compared to the natural, unmodified hormone — showing the albumin-sticking trick really does boost and extend its effect (Jetté et al. 2005). This animal data helped confirm the mechanism before human testing began.

SIDE EFFECTS

In the human trials, no serious side effects happened. People experienced mild things like irritation where they were injected, flushing (a warm, reddish feeling), and headache (Teichman et al. 2006). The bigger theoretical worry is that because this version keeps growth hormone elevated non-stop for days or weeks (instead of in natural bursts), it might carry the same risks seen with long-term growth hormone drugs: fluid retention (feeling puffy), joint aches, carpal tunnel-like wrist/hand numbness, and reduced ability to process sugar properly, plus a general caution about promoting the growth of any existing abnormal cells (EGRIFTA label; Genotropin label).

EXPERIMENTAL RESEARCH DOSES

In the human research studies, this was given as a shot under the skin (sometimes into a vein in early testing), and it stayed active in the body for about 5.8 to 8.1 days on average (Teichman et al. 2006). This is strictly what researchers measured in their studies — not a suggested amount for personal use.

WHAT IS THE RESEARCH COMMUNITY SAYING?

This is one of the most widely discussed peptides online, with strong disagreement about safety. Some forum users report good results: one long-time user described using 1 mg per week for two months and seeing steady muscle gain, more cutting/leaner appearance, and fat loss, with only a hot flush after injecting as a side effect (eroids.com). Others report troubling reactions — one Reddit user described their heart rate rising significantly after a few days of use, requiring a cardiologist visit, and some commenters in that same thread warned strongly against using the DAC version at all because of animal deaths they'd heard about (unverified) and concerns that its long-lasting effect "overstimulates" the body (r/Peptides). Another common complaint is gastrointestinal issues (diarrhea, gas, bloating) at daily dosing, which some users blame on taking a long-acting drug too frequently rather than the sensible once-weekly schedule (r/Peptides). A detailed comparison post pointed out that Reddit's enthusiasm about muscle and fat-loss results is not the same as proof — the actual human study only measured hormone levels, not whether people really gained muscle or lost fat (Molecular Reference).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

The most commonly discussed dose range is about 1-2 milligrams once or twice per week, injected under the skin, often before bed. Some users report using higher amounts like 4 milligrams weekly, while others use as little as 300 micrograms per week and note it may be too low to feel much (musclechemistry.com; r/Peptides). Cycles are commonly described as running 8-12 weeks followed by a break. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

GHRP-2 Acetate · No. 04

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
5 mg	$40	$200
10 mg	$50	$250

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

GHRP-2 (medical name: pralmorelin) is a small, lab-made chain of amino acids (a short peptide) designed to trigger growth hormone release. It's built to copy the shape of a natural hunger hormone called ghrelin — the same hormone your stomach releases when you're hungry (PubChem). It was developed as a drug candidate and, notably, it's actually an approved medical test used in Japan to check if someone's pituitary gland is working properly.

WHAT DOES IT DO?

GHRP-2 pretends to be the hunger hormone ghrelin. It docks onto the same receiver in your brain and pituitary gland that ghrelin normally uses, which does two things: it tells your pituitary gland to release a burst of growth hormone, and it also turns up your appetite (because that receiver is also involved in hunger signaling). It works especially well when combined with a GHRH-type peptide (like CJC-1295), because the two work through different "levers" that boost each other (Bowers et al., JCEM 2004).

WHY ARE RESEARCHERS INTERESTED?

Researchers are mainly interested in GHRP-2 for reliably testing and stimulating growth hormone release — this is well proven. Beyond that, its effects on appetite (making people hungrier) is also solidly documented in humans. Claims about muscle growth, fat loss, or recovery benefits are not directly proven by controlled human research — those are areas of ongoing interest but not confirmed outcomes in the existing profile data.

WHAT DO HUMAN STUDIES SHOW?

This is one of the better-studied secretagogue peptides in humans. In a large study of 77 healthy people and 58 people with growth hormone deficiency, a shot of GHRP-2 caused a big spike in growth hormone within an hour in basically everyone healthy, while people with a true deficiency barely responded — this is exactly why it's used as a diagnostic test in Japan (Chihara et al., Eur J Endocrinol 2007). In another study, 17 older adults received a continuous drip under the skin for 30 days, and growth hormone stayed meaningfully elevated the whole time, with normal safety checks throughout (Bowers et al., JCEM 2004). A separate study confirmed it increases food intake in healthy men. However, no study has shown it improves muscle strength, body composition, or athletic performance, and a US drug-development program for it was discontinued.

ANIMAL RESEARCH

The existing profile data does not describe separate animal studies for GHRP-2 — the evidence base here is built almost entirely from the human research described above.

SIDE EFFECTS

In the 30-day continuous study, all safety blood tests stayed normal. The most reliable side effect is increased appetite/hunger. Users may also notice a brief warm flushing feeling. As a hunger-hormone mimic, it also causes a modest rise in stress hormones (ACTH and cortisol) and in prolactin — somewhat more than a gentler peptide called ipamorelin causes. If growth hormone stays elevated for a long time, there are theoretical class-wide risks like fluid retention, reduced blood sugar control, and concerns about promoting abnormal cell growth, based on how approved growth hormone drugs are labeled. There's no solid data on what happens with use longer than about a month (Bowers et al. 2004; Genotropin label).

EXPERIMENTAL RESEARCH DOSES

In the diagnostic-testing studies, doctors gave a single 100-microgram shot directly into a vein. In the longer 30-day study, researchers used a slow, steady drip under the skin at 1 microgram per kilogram of body weight per hour. GHRP-2 works quickly — growth hormone peaks within about an hour (Chihara et al. 2007). This describes only what was studied in research settings, not a personal-use recommendation.

WHAT IS THE RESEARCH COMMUNITY SAYING?

GHRP-2 is widely discussed online, almost always compared to its "sibling" GHRP-6. The general community view is that GHRP-2 gives a strong growth hormone boost with noticeably less intense hunger than GHRP-6, making it more popular for people who don't want to feel constantly starving (r/Peptides). Reported benefits include better sleep, improved recovery between workouts, a "fuller" muscle appearance, and reduced body fat when combined with a good diet — one detailed Reddit post described visible fat loss and muscle fullness over 8 weeks of GHRP-2 with CJC-1295 no DAC (r/Peptides). Commonly reported downsides include real hunger spikes (though less than GHRP-6), water retention, occasional lethargy, and one user reported a swollen/distended feeling gut alongside no real fat or muscle change (Evolutionary.org). A detailed evidence-review site pointed out that while GHRP-2's growth hormone and appetite effects are backed by real human studies, claims about muscle gain, fat loss, and recovery are still just community anecdotes with no controlled human trial support (Molecular Reference).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

The most commonly discussed range online is 100 to 300 micrograms per injection, taken 1 to 3 times a day, often on an empty stomach and frequently paired with CJC-1295. Beginner guides suggest starting around 100 micrograms once daily before bed, while more advanced community protocols describe 200-300 micrograms taken 2-3 times daily for 8-16 week cycles (Swolverine guide; Peptidepedia). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

GHRP-6 Acetate · No. 05

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
5 mg	$40	$200
10 mg	$50	$250

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

GHRP-6 is one of the very first lab-made growth-hormone-boosting peptides ever created, developed in Cuba (research code CIGB-500). Like GHRP-2, it's a short chain of amino acids designed to mimic the natural hunger hormone ghrelin (Cabrales et al.; Berlanga-Acosta et al. 2017).

WHAT DOES IT DO?

GHRP-6 works through two different "doors." First, like GHRP-2, it copies ghrelin and knocks on your pituitary gland's door to release growth hormone, while also making you hungry. Second, it also knocks on a completely different door found on heart cells, blood vessel cells, and immune cells, called CD36. Through this second door, it can trigger protective effects that have nothing to do with growth hormone at all — like helping cells survive stress and calming down inflammation (Berlanga-Acosta et al. 2017).

WHY ARE RESEARCHERS INTERESTED?

Areas of research interest include growth hormone stimulation (well proven in humans), appetite increase (well proven — it's actually the strongest hunger-stimulator among this peptide family), and heart health/protection, though the heart-protection findings so far come only from animal studies, not humans.

WHAT DO HUMAN STUDIES SHOW?

A safety study gave increasing doses (from very small up to a large amount) by injection into a vein to 18 healthy men, and everyone tolerated all six dose levels reasonably well. Some people had mild side effects like sweating, a slower heartbeat, and sleepiness, but nothing serious happened and everything went away without treatment (Selman-Housein Bernal et al. 2014). GHRP-6 also reliably raises stress hormones (cortisol) — doctors even use this feature to help diagnose a hormone condition called Cushing's disease (PMID 16832586). In children with real growth hormone deficiency, 8 months of treatment sped up their growth rate (Mericq/Bowers 1998). No human trial has tested whether it protects the heart — that evidence is animal-only (see below).

ANIMAL RESEARCH

This is where most of the exciting research on GHRP-6 exists. In pigs having a simulated heart attack, GHRP-6 rescued more than 70% of the heart tissue that would have otherwise died. In dogs with heart failure who then had a heart attack, GHRP-6 treatment led to 100% survival over 21 days, compared to only about 50% survival without it (Berlanga-Acosta et al. 2017). This is very promising, but it's important to understand this is animal research only — no human study has confirmed these heart-protection benefits happen the same way in people.

SIDE EFFECTS

The most reliably reported effects, especially at higher doses, were sweating, a slowed heart rate, and sleepiness/drowsiness — all described as mild and going away on their own (Phase 1 safety report). GHRP-6 also reliably raises appetite (often described as its most defining feature) and raises stress hormones (cortisol) and prolactin more than gentler peptides like ipamorelin. If growth hormone stays elevated for a long time, there are theoretical risks similar to other growth-hormone-boosting drugs: fluid retention and reduced blood sugar control. Long-term human safety data don't exist.

EXPERIMENTAL RESEARCH DOSES

In the human safety study, doses of 1, 10, 50, 100, 200, and 400 micrograms per kilogram of body weight were given as a single shot directly into a vein, with side effects becoming more common at the higher end (half of all side effects happened at the highest, 400 microgram/kg, dose) (Phase 1 report). In another human study measuring how the body processes it, the drug cleared from the blood fairly quickly, with most of it gone within a few hours. This is strictly what was measured in research, not a use recommendation.

WHAT IS THE RESEARCH COMMUNITY SAYING?

GHRP-6 has a long history of discussion in bodybuilding and peptide forums, and the community's single most repeated theme is intense hunger — described by one detailed guide as GHRP-6's "defining characteristic," often making it a favorite specifically for people trying to eat more during a muscle-building phase (Peptide Effect summary). Users on Reddit report feeling extremely hungry within an hour of a dose, and several say they eventually switched to GHRP-2 or ipamorelin because the hunger was simply too disruptive (r/Peptides). Other consistently reported benefits include noticeably improved sleep quality and faster recovery between workouts, especially when combined with a GHRH-type peptide like CJC-1295 or Mod GRF, which users say amplifies the effect significantly (T Nation forum). Reported downsides beyond hunger include tingling in the hands/fingers, occasional gyno-related (breast tissue) tenderness, and snoring, which one user attributed to deeper sleep and possibly to the raised prolactin GHRP-6 is known to cause.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

The most common community protocol described is about 100 micrograms per injection, taken 2-3 times daily on an empty stomach, often before bed for sleep benefits and around workouts for recovery (T Nation). Some users describe higher total daily amounts around 25 milligrams dissolved in a carrier solution taken once daily, though this appears to be an unusual, non-standard approach compared to the more typical microgram-range dosing. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Hexarelin Acetate · No. 06

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
2 mg	$35	$175
5 mg	$45	$225

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Hexarelin (medical name: examorelin) is a lab-made short peptide, closely related to GHRP-2 and GHRP-6, that's designed to trigger growth hormone release by mimicking the hunger hormone ghrelin (PubChem). What makes it stand out from its relatives is a second, very distinct effect on the heart, discovered because it strongly attaches to a receptor called CD36 that's especially common on heart muscle cells.

WHAT DOES IT DO?

Like its relatives, Hexarelin knocks on the same door as the hunger hormone ghrelin, telling the pituitary gland to release growth hormone. But Hexarelin also strongly knocks on a separate door on heart cells (CD36), and this second effect is completely independent of growth hormone — it directly changes how hard the heart squeezes, at least in the short term, an effect scientists proved by showing it still happens even in people whose pituitary gland can't respond with growth hormone (Berlanga-Acosta et al. 2017; PMID 10528131).

WHY ARE RESEARCHERS INTERESTED?

Areas of research interest include growth hormone stimulation (well documented in humans) and heart health — specifically a short-term, direct boost to how strongly the heart pumps, which has been shown in small human studies. Longer-term heart protection has mainly been studied in animals, not confirmed in people.

WHAT DO HUMAN STUDIES SHOW?

In a small study of 7 healthy men, an IV dose of Hexarelin raised growth hormone about as much as real growth hormone injections, and it also increased how much blood the heart pumped with each beat (ejection fraction went from about 64% to 71%) within 15-30 minutes, without changing blood pressure or heart rate (Bisi et al., J Endocrinol Invest 1999). Separately, giving it through the nose or by mouth to elderly volunteers for 8-15 days did not cause the body to "get used to it" and stop responding (no desensitization), and caused no side effects (Ghigo et al. 1996). No large, long-term human trial has tested whether it provides lasting heart benefits or muscle/body-composition benefits — development of it as an approved drug was discontinued.

ANIMAL RESEARCH

In rats with high blood pressure and in hamsters with a serious heart-muscle disease, Hexarelin showed protective effects on the heart (Berlanga-Acosta et al. 2017). This heart-protection research is much more developed in animals than in humans, where only short-term safety and hormone effects have been tested.

SIDE EFFECTS

In the short human studies (8-15 days), no side effects were reported at all (Ghigo et al. 1996). The main known downside of Hexarelin, compared to gentler peptides, is that it raises stress hormone (cortisol) more than growth hormone itself does, and more than a milder peptide called ipamorelin does (Bisi et al. 1999). It also raises prolactin and stimulates appetite, both class-typical effects. Because it briefly changes how the heart pumps, caution is recommended for anyone with existing heart conditions, even though animal data has generally been positive. No long-term human safety data exist.

EXPERIMENTAL RESEARCH DOSES

Researchers tested Hexarelin through several different routes: injection into a vein, injection under the skin, through the nose, and even by mouth. Nasal doses of about 18 micrograms per kilogram of body weight and oral doses of about 300 micrograms per kilogram were used to get an effect similar to smaller IV doses, showing that swallowing or sniffing it wastes a lot of the dose along the way (Ghigo et al. 1996). Its growth hormone effect kicks in within minutes, and the heart-pumping effect fades within about an hour. This describes only what was tested in formal research, not a suggested amount for personal use.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Hexarelin has real but comparatively thin community discussion — several users specifically note there's "barely any anecdotal experience" shared about it compared to more mainstream peptides (r/Peptides). Among the reports that do exist, users describe it as one of the most potent GHRPs available — one detailed 2-month review reported modest strength improvements, deeper sleep, and smoother recovery, but also increased water retention and puffiness in the face and hands (r/PurePeptides). A repeated theme in the community is quick desensitization — users say the body "gets used to" Hexarelin faster than other similar peptides, so most recommend using it only occasionally (like just before workouts, or every other day) rather than every single day (Professional Muscle forum; EliteFitness forum). Consistent with the human research, community members also describe it as raising cortisol and prolactin more than other options in its class, sometimes leading to poorer sleep quality or irritability if overused (r/USPeptides).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

The most frequently cited community dose range is 100 to 300 micrograms per injection, used 1 to 3 times daily, though many experienced users specifically recommend limiting Hexarelin to once daily (often before bed or before a workout) rather than multiple times, to avoid the body getting used to it too fast (looksmax.org; Peptides.org dosage guide). Cycles are commonly described as 8-16 weeks followed by a 4-8 week break. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

HGH 191AA (Somatropin) · No. 07

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
6 IU	$50	$250
10 IU	$40	$200
12 IU	$60	$300
15 IU	$70	$350
24 IU	$80	$400
36 IU	$100	$500

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

This is real, actual human growth hormone (its medical name is somatropin) — an exact, lab-made copy of the natural hormone your own pituitary gland makes, built from 191 connected amino acids using genetically engineered bacteria (E. coli). Unlike most of the other peptides in this guide, this isn't a "mimic" or "trigger" for growth hormone — it IS growth hormone itself, and it has been an FDA-approved prescription medicine since 1987 (Genotropin FDA label).

WHAT DOES IT DO?

Growth hormone travels through your blood and attaches to receptors on many different cell types — bone-building cells, muscle cells, fat cells, and liver cells. When it attaches, it flips on internal switches inside those cells. Some effects happen directly (like breaking down fat and raising blood sugar slightly), while many other effects (like building muscle and bone growth) actually happen because growth hormone tells the liver to make a second hormone called IGF-1, which does a lot of the actual "building" work (Genotropin label).

WHY ARE RESEARCHERS INTERESTED?

As an approved medicine, growth hormone's real, proven medical uses include treating growth hormone deficiency (in kids and adults), certain genetic short-stature conditions, and muscle-wasting conditions. Beyond its approved medical uses, growth hormone is also broadly linked in research to fat loss, muscle growth, recovery, and skin/anti-aging effects — but the source data is clear that using it for anti-aging, athletic performance, or cosmetic body changes is NOT an approved or scientifically supported use.

WHAT DO HUMAN STUDIES SHOW?

This is by far the most rigorously studied substance in this guide, backed by decades of controlled trials involving thousands of patients. In large official trials (over 1,100 adults with true growth hormone deficiency), common side effects included swelling in the arms/legs (17.5% of patients vs. 5.1% on placebo), joint aches (17.3% vs 4.2%), and pain in arms/legs. In long-term follow-up of over 3,000 patients, about 0.4% developed diabetes and 2% developed carpal tunnel syndrome (nerve compression in the wrist). Critically, in two controlled studies of 522 critically ill adults in intensive care, growth hormone treatment was linked to a much higher death rate — 42% died versus 19% on placebo — showing it can be genuinely dangerous in the wrong medical situation (Genotropin label).

ANIMAL RESEARCH

The existing profile data does not include separate animal-study findings for this molecule — its evidence base comes from decades of human clinical trials described above, since it's an approved human medicine rather than an experimental peptide.

SIDE EFFECTS

Growth hormone has an unusually well-documented, official safety label listing many possible issues: increased death risk in critically ill patients, a warning about second tumors (like meningiomas) in childhood cancer survivors who received radiation, reduced ability to process sugar (possibly leading to diabetes), a rare but serious pressure buildup inside the skull (usually within the first 8 weeks of treatment), severe allergic reactions, fluid retention causing joint/muscle aches and wrist nerve compression, thyroid and adrenal gland changes, and other rarer issues. It should never be used by people with active cancer, and there are specific warnings for children with Prader-Willi syndrome who are severely overweight or have breathing problems during sleep, since sudden deaths have been reported in that group (Genotropin label).

EXPERIMENTAL RESEARCH DOSES

As an approved medicine, growth hormone is given as an injection under the skin. It's absorbed fairly well this way (about 80% gets into the bloodstream), reaches its peak level in the blood at around 6 hours, and is cleared from the body within a few hours (Genotropin label). This describes how the approved medicine works in medical settings — it is not framed as an amount for non-medical use.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Real human growth hormone ("HGH 191aa," as it's called in forums) is discussed extensively in bodybuilding, TRT, and biohacking communities, distinct from the secretagogue peptides above because it's the actual hormone rather than something that triggers your body to make more. Community reports commonly describe improved sleep quality, visible skin improvement, joint/injury recovery, and body fat reduction, especially at lower, more conservative doses over months of use (r/trt). Frequently reported side effects include water retention ("puffy" hands and face), carpal tunnel-like wrist/hand numbness or tingling, and rising blood sugar, with many experienced users tracking their blood glucose and using supplements like berberine or metformin to manage it (r/SARMs). One long thread specifically warned that there's "no safe dose" in an absolute sense — every additional unit increases the chance of side effects, though most agree low, steady doses over a long time are far more sensible than very high, short-term doses. Several posters also warned about fake or underdosed product from certain online sellers, making product quality a recurring community concern (r/sarmssourcetalk).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

The most commonly discussed range for general wellness/anti-aging purposes in community forums is about 1 to 4 IU (international units) per day, often taken before bed, with some experienced users going up to 6-8 IU daily for muscle-building goals and citing that doses above roughly 12 IU daily bring sharply increasing side effects (r/steroids; r/BodybuildingCycle). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective — and it's worth remembering this substance is only legally available as a doctor-prescribed medicine for approved medical conditions.

HGH Fragment 176–191 · No. 08

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
2 mg	$40	$200
5 mg	$55	$275
10 mg	$80	$400

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

HGH Fragment 176-191 (drug code AOD9604) is a small lab-made piece — just 16 amino acids — cut from the tail end of the full growth hormone molecule, with one small chemical swap. The idea behind it: growth hormone's tail end seems responsible for burning fat, while the rest of the molecule causes the growth-related and blood-sugar effects. So scientists made just the tail piece, hoping to get the fat-burning benefit without the other effects (PubChem).

WHAT DOES IT DO?

Unlike full growth hormone, this fragment does NOT attach to the regular growth hormone receptor and does NOT raise IGF-1 levels. Instead, animal research suggests it works through a different "switch" on fat cells called the beta-3 adrenergic receptor, encouraging fat cells to break down stored fat and burn it for energy, without needing to boost growth-related hormones (Heffernan et al. 2001).

WHY ARE RESEARCHERS INTERESTED?

The area of interest is specifically fat loss — the whole point of designing this fragment was to try to get a fat-burning benefit while avoiding growth hormone's other effects on blood sugar and growth. Unfortunately, as explained below, human trials ultimately did not confirm this worked for weight loss.

WHAT DO HUMAN STUDIES SHOW?

This peptide actually went through a large, serious drug-development program — about 925 patients across six randomized, placebo-controlled trials between 2001 and 2007, including two big studies (300 and 500 obese adults) testing an oral pill version. The good news: it was very safe — no effect on blood sugar, no allergic reactions, and side effects similar to a placebo (fake pill) (Stier et al. 2013). The bad news: it simply did not work — the studies failed to show it actually caused meaningful weight loss, and the company stopped developing it as a drug in 2007 (FDA docket; Wikipedia background). This is an important, well-documented negative result, not just a lack of evidence.

ANIMAL RESEARCH

In mouse studies (including obese mice), giving this peptide or full growth hormone increased fat burning and reduced body weight (Heffernan et al., Int J Obes 2001). Safety testing in rats and monkeys found no concerning effects even at high doses, and no signs of the peptide causing genetic damage (nonclinical review). So the fat-burning effect and safety were both supported in animals — the disappointment came only when it was tested carefully in humans.

SIDE EFFECTS

Across the human trials, this peptide was essentially as safe as a placebo — no meaningful side effects, no allergic/immune reactions, and no impact on blood sugar control (Stier et al. 2013). Because it doesn't raise IGF-1, it also doesn't carry the growth-related risks that come with real growth hormone. The biggest real-world risk isn't toxicity — it's that it may simply not do what people hope it will do, plus the general risk of buying an unregulated research chemical of unknown purity.

EXPERIMENTAL RESEARCH DOSES

In the large drug trials, this was tested as an oral (swallowed) pill, which is unusual for a peptide since most peptides get broken down in the stomach — this was one of its selling points as a potential product. Exact numeric half-life and absorption figures were not established in the available research summary. This describes what was tested in formal trials, not a use recommendation.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Community opinion on this peptide (often just called "Frag" or by its trade name AOD9604) is sharply divided and often skeptical. Some users report modest fat-loss benefits when combined with fasted cardio, describing feeling more energetic and noticing some fat loss around the midsection after weeks of use (r/steroidsxx). However, just as many or more users report it did nothing noticeable, with one detailed Reddit discussion pointing out that the actual Phase III clinical trials found no statistically significant fat-loss effect, and that the peptide breaks down very quickly in the body, making anecdotal reports hard to trust since people are usually also dieting and exercising at the same time (r/Peptides). Multiple long-time forum users concluded that any fat loss they experienced was likely due to their diet and fasted-cardio routine rather than the peptide itself, and some straightforwardly said it "literally did nothing" even when lab-tested to confirm it was a legitimate product (r/steroids).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community and vendor guides commonly describe doses of 250 to 500 micrograms, injected once or twice daily, typically in a fasted state before cardio exercise (r/amino_asylum guide). One Reddit user described using a notably higher amount, 700-900 micrograms daily, without seeing much extra benefit (r/Biohackers). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective — and it's worth remembering the best available human trials found no real weight-loss benefit at all.

GROWTH / ENDOCRINE · NO. 09

IGF-1 DES · No. 09

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
Standard	$40	$200

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

IGF-1 DES (full name des(1-3)IGF-I) is a naturally occurring, shortened version of a hormone called IGF-1 (insulin-like growth factor 1) — one of the main hormones your body uses to actually build muscle and tissue once growth hormone has done its job. This shortened version is simply missing the first three building blocks (amino acids) off the front of the chain. It's been found naturally in cow's first milk (colostrum), human brain tissue, and pig tissue, and scientists believe the body itself creates it by clipping a piece off regular IGF-1, rather than it being a totally separate hormone (Ballard et al. 1996).

WHAT DOES IT DO?

Regular IGF-1 usually travels through your blood "handcuffed" to escort proteins (called IGFBPs) that control how much of it is actually free to work on cells at any given time. Because IGF-1 DES is missing those first three building blocks, it slips out of the escort proteins' grip much more easily. This means more of it stays "free" and active at any given moment, which is why it appears roughly 10 times more powerful than regular IGF-1 in lab-dish tests — not because it binds any differently to the actual receptor, but because more of it is available and unrestrained (Ballard et al. 1996).

WHY ARE RESEARCHERS INTERESTED?

The area of research interest is muscle/tissue growth, since IGF-1 in general is one of the body's main muscle-building signals, and this shortened version appears to be a more potent variant. However, it's important to know that essentially all supporting evidence for this specific molecule comes from lab dishes and animals, not people.

WHAT DO HUMAN STUDIES SHOW?

There is no human research on this peptide at all. The scientific paper describing it specifically said that possible medical uses in people had not even been evaluated yet (Ballard et al. 1996). Any claims you might see about it building muscle, targeting specific body areas, or healing injuries in humans are not backed by any human study — they are theoretical or purely anecdotal.

ANIMAL RESEARCH

In lab-dish tests, IGF-1 DES was about 10 times more potent than regular IGF-1 at causing cells to grow and multiply, because it escapes the escort proteins that normally hold IGF-1 back (Ballard et al. 1996). In marmoset monkeys and pigs, IGF-1 DES and related engineered versions were confirmed to be more potent than regular IGF-1, but this extra potency came with a serious catch: it caused 4 to 8 times more low blood sugar (hypoglycemia) than an equal amount of regular IGF-1, and this low blood sugar effect lasted longer even though the drug itself left the bloodstream faster (Tomas et al. 1997).

SIDE EFFECTS

The single most important documented risk is low blood sugar (hypoglycemia), shown to be significantly worse with this peptide than with regular IGF-1 in animal studies (Tomas et al. 1997). Beyond that, since it works through the same growth receptor as regular IGF-1 (just more strongly), it theoretically carries the same general concerns linked to that receptor being active without any of the body's normal checks: possibly encouraging growth of any existing abnormal cells, plus effects like fluid retention, joint aches, and tingling that are seen when the growth hormone/IGF-1 system is pushed hard by drugs. There is no formal human safety data of any kind for this peptide.

EXPERIMENTAL RESEARCH DOSES

In animal studies, IGF-1 DES cleared out of the bloodstream faster than regular IGF-1 (because it isn't held onto by escort proteins), yet its blood-sugar-lowering effect actually lasted longer (Tomas et al. 1997). No human dosing information exists in the scientific literature at all — as a protein, it would need to be given by injection since it would be destroyed if swallowed. This describes only what was measured in animal research, not a use recommendation for people.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Public community discussion specifically about IGF-1 DES is minimal — most bodybuilding and peptide forum conversation about "IGF-1" actually centers on a different, more popular lab-made variant called IGF-1 LR3, which behaves differently and lasts much longer in the body. Where DES is specifically mentioned, it comes up as an alternative some users choose for its very short, fast-acting effect, often used right at the gym directly before training a specific muscle, in contrast to LR3 which can be injected any time of day because it lasts longer (r/steroids IGF-1 LR3 thread). One user mentioned combining IGF-1 DES (or LR3) with Hexarelin at 80-120 micrograms, injected directly into the muscle being trained right before a workout. Overall, dedicated, detailed community reviews of DES specifically (separate from LR3) are hard to find — this appears to be one of the less-discussed peptides covered here, consistent with it being an obscure, hard-to-source research chemical.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

The limited community mentions found describe doses in the range of about 80 to 120 micrograms, injected directly into the specific muscle being trained shortly before a workout (r/steroids). Because so little dedicated discussion of this specific variant exists, it isn't possible to confidently identify a clear "lowest, most common, and highest" range the way it is for more widely discussed peptides. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

IGF-1 LR3 · No. 10

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
0.1 mg	$35	$175
1 mg	$80	$400

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

IGF-1 LR3 (also called Long R3 IGF-I) is a lab-made version of a hormone your body already makes called IGF-1 (insulin-like growth factor 1), which normally helps muscles and other tissues grow. Scientists changed the natural hormone slightly — swapping one building block near the front of the chain and adding a small extra piece — to make a longer-lasting, more powerful version (reference description). This tweak makes it stick around and act on cells much more strongly than the natural hormone, because it slips past the proteins in your blood that normally soak up and control IGF-1 (Bastian et al.).

WHAT DOES IT DO?

Think of IGF-1 like a text message telling your muscle cells to grow and repair themselves. Normally your blood has 'binding proteins' that grab onto most of that message before it reaches its target, so only a little gets through. IGF-1 LR3 is built so those binding proteins can barely hold onto it — about 1,000 times less well than normal IGF-1 — so way more of the growth message reaches your cells at once (Bastian et al.). It does this by locking onto the IGF-1 'docking station' (receptor) on cells and flipping on internal switches that tell the cell to build more protein and multiply.

WHY ARE RESEARCHERS INTERESTED?

Researchers have looked at this mainly for muscle growth, since IGF-1 signaling is one of the main pathways that makes muscle bigger and stronger. Some animal studies also looked at its effect on blood sugar control, since the same pathway that builds muscle can also lower blood sugar like insulin does. There isn't support in the existing research for other commonly hyped areas like fat loss, sleep, or brain function.

WHAT DO HUMAN STUDIES SHOW?

There are no completed human studies of IGF-1 LR3 as a treatment or muscle-building product. Scientists have searched the major research databases and found nothing — its only well-documented use is as an ingredient added to cells growing in lab dishes, not something tested in people. Any claims about it building muscle, helping injuries heal, or reshaping someone's body in real people are not backed by actual human trials — they are personal stories, not proof.

ANIMAL RESEARCH

In rats, IGF-1 LR3 was about 6 times more powerful than natural IGF-1 at boosting weight gain and helping the body hold onto nitrogen (a sign of building muscle protein) over 14 days, though it also left the bloodstream faster (Bastian et al.). But results were not consistent across animals. In guinea pigs, it made organs grow bigger but actually lowered the animal's own natural growth hormones (study). In pigs, it did the opposite of what you'd expect — it slowed down daily weight gain, reduced how much the pigs ate, and suppressed their natural growth hormone significantly (study). So even in animals, the growth-boosting effect isn't guaranteed and depends heavily on the species.

SIDE EFFECTS

The biggest documented risk is low blood sugar (hypoglycemia), because this peptide acts a bit like insulin and pulls sugar out of the bloodstream faster than normal (study). This can feel like shakiness, dizziness, sweating, or confusion. Animal studies also show that using it can shut down your body's own natural growth hormone and IGF-1 production over time. Because it makes cells grow and divide, there's a theoretical worry about it encouraging unwanted cell growth (like tumors), though this hasn't been directly tested. There is no official list of human side effects because there have been no human trials.

EXPERIMENTAL RESEARCH DOSES

Animal studies used it daily for about 14 days at doses scaled to body weight, given by injection. No standardized human dose exists in the scientific literature at all — anything you see about human 'doses' is not from actual clinical research. This information is purely educational and is not a usage recommendation.

WHAT IS THE RESEARCH COMMUNITY SAYING?

IGF-1 LR3 shows up heavily on bodybuilding forums like Reddit's r/steroids, r/Peptides, r/moreplatesmoredates, and sites like ProfessionalMuscle and AnabolicMinds. People report using it for extra muscle pumps, faster injury healing (like pec or rotator cuff tears), and modest strength gains, often stacked with steroids, HGH, or insulin (Reddit r/moreplatesmoredates; Reddit r/steroids). Reported side effects mentioned include low blood sugar symptoms, mild joint discomfort, and rapid strength or muscle gains that some describe as almost too fast. A recurring and important controversy: several users and one detailed thread claim much of what's sold online as 'IGF-1 LR3' is fake or is actually just HCG in disguise, meaning people may be crediting a completely different substance for their results (Reddit r/moreplatesmoredates). Some users on r/Peptides describe barely noticing any effect at all, calling the cost-to-benefit ratio poor (Reddit r/Peptides).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community reports online describe doses ranging from as low as 20 micrograms (mcg) per day up to 500 mcg per day, though most people online say they use somewhere between 20-100 mcg per day, often split before and after exercise, in cycles of 2-8 weeks followed by a break of similar length (ProfessionalMuscle forum; eroids.com forum). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Ipamorelin · No. 11

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
2 mg	$35	$175
5 mg	$40	$200
10 mg	$45	$225

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Ipamorelin is a lab-made short chain of 5 amino acids (a pentapeptide) originally developed by the drug company Novo Nordisk under the code name NNC 26-0161 (PubChem). It's designed to trick your pituitary gland (a small hormone-control center in your brain) into releasing more of your own natural growth hormone.

WHAT DOES IT DO?

Imagine your pituitary gland has a button that releases growth hormone. Ipamorelin pushes that button by attaching to a specific 'ghrelin receptor' (the same receptor that responds to the hunger hormone ghrelin) on the pituitary gland and nearby brain cells. What makes Ipamorelin special compared to older similar peptides is that it's picky — it mostly just releases growth hormone without also triggering the release of stress hormones like cortisol or other hormones like prolactin (Raun et al.).

WHY ARE RESEARCHERS INTERESTED?

Researchers have studied it for boosting growth hormone release in a very targeted way, and separately for helping the gut start moving again after surgery (postoperative bowel paralysis, called ileus). There isn't solid supporting evidence in the source data for using it for muscle growth, fat loss, sleep, or anti-aging in humans, even though those are common claims.

WHAT DO HUMAN STUDIES SHOW?

The only completed human study is a study in patients recovering from abdominal surgery, testing whether Ipamorelin could help their bowels start working again faster (study). It was given through an IV twice a day for up to a week in 117 patients. The result: the drug was safe and well-tolerated (patients on Ipamorelin actually had fewer side effects than those on placebo), but it did NOT significantly speed up bowel recovery compared to placebo — the trial technically failed to prove it worked for that use (Beck et al.). There are no human trials showing it helps with muscle, body shape, sleep, or anti-aging — those uses are based on personal stories, not real trials.

ANIMAL RESEARCH

In pigs, Ipamorelin was just as good at releasing growth hormone as an older, less selective peptide (GHRP-6), but without spiking stress hormones like cortisol — this is the key finding behind why it's marketed as 'cleaner' than older growth hormone peptides (study). In a rat study simulating post-surgery bowel paralysis, a single dose helped the rats have their first bowel movement sooner, and repeated dosing increased their food intake and weight gain (study).

SIDE EFFECTS

In the human surgery trial, Ipamorelin actually caused fewer side effects than the placebo (87.5% vs 94.8% of patients had some side effect, which is not really a meaningful difference) and no dangerous events were tied specifically to the drug (Beck et al.). Its main advantage over similar older peptides is that it doesn't raise cortisol (stress hormone) or prolactin. That said, drugs in this general growth-hormone family are known to sometimes cause fluid retention (feeling puffy), joint aches, tingling in hands, and reduced sensitivity to insulin with long-term heavy use, plus a theoretical worry about encouraging unwanted cell growth — but none of this was specifically confirmed for Ipamorelin beyond a week of use, since no study has gone longer.

EXPERIMENTAL RESEARCH DOSES

The one completed human trial used 0.03 milligrams per kilogram of body weight, given through an IV twice a day for up to 7 days (study). Injection under the skin (subcutaneous) is common in research settings, but there's no confirmed human information on how long the drug stays active or how well it's absorbed. This is purely educational information about what was studied, not a usage suggestion.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Ipamorelin is very widely discussed online, especially paired with another peptide called CJC-1295, as part of nighttime 'growth hormone stacks' for sleep, recovery, and slow muscle/fat changes. On Reddit's r/Biohackers, one detailed 2-month log described better strength, improved recovery, deeper sleep (though with more vivid dreams), and a mild warm 'flush' feeling after injection, with no major complaints (Reddit r/Biohackers). A commonly repeated community claim is that Ipamorelin doesn't spike hunger the way older peptides like GHRP-6 do, which lines up with what the actual pig study found. Most online discussion focuses on sleep quality and gym recovery rather than dramatic muscle growth, and users generally describe it as mild and well-tolerated, consistent with what the one real clinical trial found.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

People online most commonly report using 100-300 micrograms (mcg) injected under the skin once daily, usually at bedtime on an empty stomach, often for 5 days followed by 2 days off. Some report combining it with 100 mcg of CJC-1295 (Reddit r/Biohackers). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

MGF · No. 12

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
2 mg	$40	$200

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

MGF stands for Mechano Growth Factor. It's a piece of a hormone your muscles naturally produce, related to IGF-1, called IGF-1Ec. When your muscle gets mechanically stressed (like during exercise), your body sometimes edits the instructions for making IGF-1 in a special way that creates this variant. The version sold as a research peptide is usually a synthetic 24-amino-acid piece called the 'E-domain,' not the full natural hormone (Kandalla et al.).

WHAT DOES IT DO?

The idea is that when your muscle gets damaged from training, it releases MGF as a kind of local alarm signal that wakes up dormant 'muscle stem cells' (called satellite cells), telling them to multiply so they can help repair and grow the muscle later. Unlike regular IGF-1, MGF seems to work through some other, not-yet-identified pathway rather than the main IGF-1 docking station on cells (Goldspink review).

WHY ARE RESEARCHERS INTERESTED?

Scientists have been interested in MGF for muscle repair and growth, since it seems to activate muscle stem cells in lab dish experiments. There isn't support in the existing data for fat loss, sleep, brain function, or other commonly claimed benefits.

WHAT DO HUMAN STUDIES SHOW?

There are no human clinical trials of synthetic MGF at all. Everything claimed about its effects on people is based on personal anecdotes, not real studies.

ANIMAL RESEARCH

In lab dish experiments, synthetic MGF helped young muscle stem cells multiply for longer and delayed them from settling down into mature muscle — but interestingly, it had no effect at all on stem cells taken from old, aged muscle (Kandalla et al.). However, this is where it gets complicated: two separate pharmaceutical company labs tried to repeat these experiments and completely failed. Using the same or even higher concentrations, they found synthetic MGF did nothing to human or mouse muscle cells in the lab, while real IGF-1 worked fine in the same tests. Those scientists concluded there's real doubt about whether MGF does anything at all biologically (Fornaro et al.). So the animal/cell evidence for MGF is genuinely disputed among scientists, not just limited.

SIDE EFFECTS

There is no formal human safety data for MGF — no studies have tracked side effects, safe dose limits, or who shouldn't use it. Because it's related to IGF-1, there's a theoretical concern that it could encourage unwanted cell growth, since related IGF-1Ec/MGF activity has shown up in prostate cancer cells in lab studies. Because it's an unregulated substance bought from research chemical sellers, there's also a real risk that what you get isn't pure or exactly what's labeled.

EXPERIMENTAL RESEARCH DOSES

There's no established human dosing information in the scientific literature, since no human trials exist. Animal and cell-culture studies used concentrations up to 500 nanograms per milliliter in lab dishes, which isn't directly translatable to a human dose. This is purely educational information about what has been tested, not a usage suggestion.

WHAT IS THE RESEARCH COMMUNITY SAYING?

MGF has an active following in bodybuilding communities on forums like Reddit's r/steroids, r/Peptides, AnabolicMinds, and Bodybuilding.nl. Users report injecting it directly into the muscle they just trained (called 'site injection') within minutes after a workout, since it's believed to break down extremely fast in the body. Reported experiences include reduced muscle soreness after workouts, feelings of localized muscle 'fullness,' and faster recovery between sessions (PeptideSchedule community summary). A common and important theme in the community itself is that gains from MGF don't seem to stick around after stopping, and many experienced users end up switching to the longer-lasting PEG-MGF version instead because of how impractical MGF's short window is. Some threads explicitly flag that the lab-study evidence for MGF is contested, referencing the Fornaro study that found no effect on human muscle cells.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

The most commonly discussed community dose is 100-200 micrograms (mcg) injected directly into the just-trained muscle within about 5 minutes after finishing a workout, with some more aggressive users going up to 300 mcg. Typical cycles described online run about 4-6 weeks on, followed by 4 weeks off (PeptideSchedule community data; AnabolicSteroidForums). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

PEG-MGF · No. 13

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
2 mg	$55	$275

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

PEG-MGF is MGF (the muscle-repair signal described in the MGF entry) with an extra chemical tag attached called polyethylene glycol, or PEG for short. Think of PEG like bubble wrap taped onto the peptide — it makes the molecule bigger and slower for the body to break down and filter out, so it lasts much longer in the bloodstream. Importantly, there's no single standard recipe for making PEG-MGF — different sellers may use different types of PEG tags, so products sold under this name may not all be chemically identical (Kandalla et al., parent compound reference).

WHAT DOES IT DO?

In theory, it's supposed to work exactly like regular MGF — waking up muscle stem cells to help repair and grow muscle after exercise or injury — but stick around in your system much longer thanks to the PEG tag, similar to how PEG has been shown to extend the life of other growth hormone-related drugs in real studies (Kletzl et al.). However, no one has actually tested in a published study whether adding the PEG tag still lets the molecule work the way plain MGF is claimed to.

WHY ARE RESEARCHERS INTERESTED?

There is no direct published research on PEG-MGF itself, so any interest is really borrowed from unmodified MGF's theoretical role in muscle repair — and even that is scientifically disputed (see MGF entry). No areas of interest are actually supported by real evidence for this specific molecule.

WHAT DO HUMAN STUDIES SHOW?

None exist. Searches of the major medical research databases turn up zero human studies, zero registered clinical trials, and no published safety or effectiveness data for PEG-MGF under any name. The closest related human data comes from a totally different, fully PEG-tagged version of plain IGF-1 (not MGF) tested in 62 healthy volunteers, which showed the tag made the drug stay active in the body for 140-200 hours and mostly caused injection-site redness (Kletzl et al.) — but this is a different molecule, so it can't be assumed to apply directly to PEG-MGF.

ANIMAL RESEARCH

There is no published animal research on PEG-MGF specifically either. The only related evidence is the disputed cell-culture data on plain (non-PEG) MGF, where two pharmaceutical labs could not reproduce any muscle-building effect and questioned whether MGF does anything biologically at all (Fornaro et al.).

SIDE EFFECTS

No safety studies of any kind exist for PEG-MGF in animals or people. Two specific concerns are worth understanding: first, PEG-tagged drugs in general can sometimes trigger your immune system to make antibodies against the PEG tag itself, which over repeated use can make the drug clear out of your body faster or even cause allergic-type reactions. Second, because MGF-related molecules have shown some activity in cancer cells in lab studies, making the peptide last longer in your body could theoretically increase that risk rather than reduce it. Because it's sold as an unregulated research chemical, there's also risk that what's in the vial isn't pure or accurately labeled.

EXPERIMENTAL RESEARCH DOSES

There is no dosing information from any published study for PEG-MGF, in any species, at any dose. This is a genuine evidence gap, not just limited data.

WHAT IS THE RESEARCH COMMUNITY SAYING?

PEG-MGF is discussed extensively on Reddit (r/Peptides, r/Biohackers, r/PeptideGuide, r/PEDs) and older bodybuilding forums, usually as the longer-acting companion to plain MGF, used on rest days rather than right after workouts. Reported experiences are mixed: some users describe genuine improvements in muscle recovery and healing after injuries like ankle surgery or nerve damage (Reddit r/Peptides; Reddit r/PeptideGuide), while others call it 'underwhelming' and say nothing happened even after weeks of use, suggesting people would be better off spending money on other compounds (Reddit r/PEDs). Some community members push back on the idea that it could cause heart problems, citing (unverified, non-peer-reviewed) claims that MGF actually protects heart tissue. Overall the community discussion mirrors the scientific uncertainty — genuinely split between believers and skeptics.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community-reported doses commonly range from 200-400 micrograms (mcg) injected under the skin every other day, or 200-250 mcg two times per week, typically in cycles of 4-8 weeks followed by 4-6 weeks off (Reddit r/Peptides; Peptides.NYC community guide). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Sermorelin Acetate · No. 14

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
2 mg	$45	$225
5 mg	$55	$275
10 mg	$65	$325
15 mg	$80	$400

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Sermorelin is a lab-made, shortened piece of a natural hormone in your body called growth hormone-releasing hormone (GHRH), which tells your pituitary gland to make growth hormone. It was previously sold as an FDA-approved drug under the brand name Geref (Guide to Pharmacology). Scientists figured out that you don't need the entire natural hormone to get the effect — just the first 29 building blocks are enough to do the job.

WHAT DOES IT DO?

Imagine your pituitary gland as a factory that makes growth hormone, but it needs a signal to start production. Sermorelin acts like that signal, attaching to a specific receptor on the pituitary gland that turns on internal machinery to make and release growth hormone. Because it works upstream — sending the request rather than being the growth hormone itself — your body's normal 'off switches' still apply, meaning it can't force out unlimited growth hormone the way directly injecting growth hormone can.

WHY ARE RESEARCHERS INTERESTED?

Researchers have studied it for treating growth hormone deficiency in children with growth problems and for testing whether someone's pituitary gland is working properly. The scientific support for adult uses like anti-aging, body composition (fat loss/muscle gain), or wellness benefits is thin — those uses are mostly not backed by strong published trials.

WHAT DO HUMAN STUDIES SHOW?

In healthy men, even a small dose given through an IV caused a measurable release of growth hormone, with the strongest effect around 1-2 micrograms per kilogram of body weight, an effect that lasted about 3 hours (Wilton et al.). When given as a nasal spray instead of an injection, much less of the dose actually got absorbed (only 3-5%), but repeated nasal doses still worked over time without messing up the body's natural nighttime growth hormone release. In children with growth hormone deficiency or short stature, it successfully increased how fast they grew (study). However, there's very little solid research on adult uses like anti-aging or body recomposition — those claims mostly rely on anecdotes rather than real trials.

ANIMAL RESEARCH

The existing profile data does not report animal studies for Sermorelin — the evidence base is centered on human research, both for growth-hormone release testing and for treating growth problems in children.

SIDE EFFECTS

Historically, it's been well tolerated, especially in children. Common reactions across this drug class include pain or redness where it's injected, flushing (skin warmth/redness), headache, a strange taste in the mouth, and rarely the body making antibodies against it. Because it raises growth hormone and a related hormone called IGF-1, long-term or heavy use in this drug family can cause fluid retention (puffiness), joint aches, carpal tunnel-like nerve symptoms, and reduced sensitivity to insulin, plus a theoretical (unproven) worry about encouraging unwanted cell growth.

EXPERIMENTAL RESEARCH DOSES

In the human research, doses as low as 0.25 micrograms per kilogram of body weight given by IV caused a real growth hormone response, with the biggest effect around 1-2 micrograms per kilogram. Nasal doses needed to be much higher (around 50 micrograms per kilogram) because so little gets absorbed through the nose (Wilton et al.). This is purely educational information about what was studied in trials, not a usage suggestion.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Sermorelin is one of the most widely discussed peptides online, especially on Reddit (r/Peptides, r/tirzepatidecompound, r/Sermorelin_Peptide, r/BodyHackGuide) and in dedicated peptide-review articles. The single most consistently reported effect across the community is noticeably better sleep quality, often showing up within the first 1-2 weeks of use, described as falling asleep faster and waking up more rested (community review, The Peptide Effect). People also commonly mention modest improvements in gym recovery, mood, and a slow reduction in belly fat that takes months rather than weeks to show up. Some users report feeling notably worse (foggy, less energetic, worse sleep) after stopping it, describing a kind of withdrawal-like effect (Reddit r/Peptides). A common practical debate in the community is around the ideal dose and timing (before bed on an empty stomach is the most cited approach) and how long it takes to notice results, with most agreeing meaningful body-composition changes take 2-4 months, not days.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

The most cited community dose is 200-300 micrograms (mcg) injected under the skin once nightly on an empty stomach, typically 5 days on and 2 days off per week, though reports range from about 100 mcg up to 800-1000 mcg per day in some cases (Reddit r/Peptides; The Peptide Effect community summary). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Tesamorelin · No. 15

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
2 mg	$35	$175
5 mg	$50	$250
10 mg	$70	$350
20 mg	$135	$675

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Tesamorelin is a lab-made, complete copy of the natural hormone that tells your pituitary gland to release growth hormone (GHRH), with a small chemical tag attached to the front to help it last longer in the body. It's sold under the brand names EGRIFTA, EGRIFTA SV, and EGRIFTA WR (FDA label).

WHAT DOES IT DO?

It works the same way as Sermorelin (see that entry) — attaching to the pituitary gland's receptor and telling it to release the body's own natural growth hormone in a normal, pulsing pattern, rather than injecting growth hormone directly. This growth hormone then raises another hormone called IGF-1, which is responsible for many of the downstream effects on fat and muscle. Unlike some other hormone-boosting drugs, it doesn't meaningfully raise stress hormones or other unrelated hormones.

WHY ARE RESEARCHERS INTERESTED?

Tesamorelin is FDA-approved specifically for reducing excess abdominal (belly) fat in people with HIV who have a condition called lipodystrophy (abnormal fat distribution). Researchers have also studied it for reducing fat stored in the liver. It is explicitly described as weight-neutral and NOT meant for general weight loss.

WHAT DO HUMAN STUDIES SHOW?

This is one of the most well-studied peptides in this category, with large official drug-approval trials involving over 800 people combined (FDA label). It significantly reduced visceral fat (the dangerous fat around organs) in HIV patients over 26 weeks. In a separate 6-month study, it reduced visceral fat by an average of 34 square centimeters more than a placebo and reduced fat stored in the liver as well (Stanley et al.). Blood sugar went up slightly at 2 weeks but the difference wasn't significant by 6 months. Importantly, it is not approved and not well-studied for general weight loss or bodybuilding use in people without HIV-related fat problems.

ANIMAL RESEARCH

The existing profile data does not report dedicated animal studies for Tesamorelin — its evidence base comes almost entirely from human clinical trials, since it went through the full official drug-approval process.

SIDE EFFECTS

The most common side effects (occurring in more than 5% of patients) were joint aches, redness/itching where injected, pain in the arms or legs, swelling, and muscle aches (FDA label). Allergic-type reactions happened in about 4% of patients. A notable and important finding: about half of patients developed antibodies against the drug, though this didn't seem to reduce how well it worked. There was also a small but real increase in the risk of developing diabetes-range blood sugar readings. Because it's not allowed for anyone with a history of certain pituitary problems, active cancer, or pregnancy, this is an official FDA warning, not just a general caution.

EXPERIMENTAL RESEARCH DOSES

Since it's an FDA-approved drug, the studied and labeled dose is well established: 2 milligrams injected under the skin (EGRIFTA) or 1.4 mg (EGRIFTA SV) or 1.28 mg (EGRIFTA WR) once daily (EGRIFTA WR label). This is purely educational information about the approved medical dose, not a suggestion for non-medical use.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Tesamorelin has a large, enthusiastic community discussion on Reddit (r/Biohackers, r/AskAboutPeptides, r/Peptides) and bodybuilding forums, often described as 'the most proven fat-loss peptide we have' because of its real approval and clinical trial history. Users commonly report visible reduction in belly/visceral fat over 1-3 months, better sleep, and improved workout recovery, often pairing it with Ipamorelin (Reddit r/AskAboutPeptides). One detailed personal account described 15% more lean muscle and an 80% drop in visceral fat over about a year, based on repeated DEXA body-composition scans, even without exercising (Reddit r/Biohackers) — though this is one person's unverified report, not a controlled study. A commonly discussed downside is water retention in the first 1-2 weeks, which users say clears up within a few days. Some debate exists in the community over whether it needs to be taken on an empty stomach at night or can be taken any time, with most people preferring nighttime dosing to match the body's natural growth hormone rhythm.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community-reported doses commonly range from 1-2 milligrams (mg) injected under the skin nightly, often 5-6 days per week with 1-2 rest days, in cycles lasting 8-13 weeks followed by a break of several weeks (Reddit r/Peptides; Reddit r/AskAboutPeptides). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

SECTION 02

Cognitive / Neurological

14
COMPOUNDS

Peptides studied for possible effects on memory, stress, sleep, and how brain cells talk to each other.

Adamax · No. 16

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
5 mg	$90	$450

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

'Adamax' is not a scientifically recognized name — it's a name made up by the companies that sell it, not something that appears in real published research. It's marketed as a modified version of another peptide called Semax, with an extra chemical piece (called an adamantane group) attached to help it last longer and get into the brain more easily. There's no confirmed chemical structure for it in the scientific literature, which means no one can independently verify exactly what's being sold under this name.

WHAT DOES IT DO?

Since there's no real research on Adamax itself, anything said about what it does is borrowed from its supposed parent compound, Semax, which is thought to raise levels of a brain-growth chemical called BDNF (brain-derived neurotrophic factor) and help brain cells communicate and adapt after stress or injury. Whether Adamax actually does any of this in a similar way has never been tested.

WHY ARE RESEARCHERS INTERESTED?

There is no real scientific interest in Adamax specifically, because no published research exists on it. Sellers market it for brain function and mental focus, but this is not backed by any actual study of the compound.

WHAT DO HUMAN STUDIES SHOW?

None exist. A search of the medical research database PubMed for 'Adamax peptide' turns up zero controlled studies in humans or animals. There are no clinical trials and no measurements of how it behaves in the body. Everything people report about mood, focus, or thinking ability is personal opinion, not science.

ANIMAL RESEARCH

There is no animal research on Adamax. It's important not to substitute data on Semax (its supposed parent compound) as if it were evidence for Adamax — they are chemically different and have not been shown to behave the same way.

SIDE EFFECTS

There is no safety data of any kind — no toxicity testing, no tracking of side effects, and no list of who shouldn't use it. Because it's sold as an unregulated research chemical, there's also no way to independently confirm that what's in the bottle matches what's on the label.

EXPERIMENTAL RESEARCH DOSES

There is no dosing data from any published study, since no studies of Adamax exist. This is a genuine evidence gap, not just limited information.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Adamax has a small but persistent following on nootropic and biohacking forums, especially Reddit's r/Biohackers, r/Nootropics, and r/PeptideSelect. People describe it as a stronger, longer-lasting version of Semax, with reported benefits including sharper focus, better motivation for difficult mental tasks, improved memory, and longer-lasting effects (8-10 hours) compared to Semax (Jay Campbell blog summary of community reports). Reported downsides include headaches, trouble sleeping if taken too late in the day, and increased anxiety at higher doses. A recurring and important theme in the community itself is that Adamax is very hard to source reliably, with one of its original makers (a company called Ceretropic) having shut down years ago, and some long-time users saying they can't confirm whether what's currently sold as 'Adamax' is even chemically the same thing as the original (Reddit r/Nootropics). Even enthusiastic community sources are upfront that its supposed advantages over Semax remain unproven and are mostly marketing claims. Public community discussion for this peptide's actual effects (beyond speculation) is limited compared to well-established peptides.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community and vendor sources most often describe 100-300 micrograms (mcg) taken once or twice daily, usually as a nasal spray, with some subcutaneous injection protocols mentioned at 0.5-2 milligrams (mg) daily (PinnyPeptide community/vendor summary; Jay Campbell blog). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Cerebrolysin · No. 17

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
60 mg	$40	$200

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Cerebrolysin is not a single peptide — it's a mixture of small proteins and amino acids extracted from pig brain tissue, made by breaking down purified brain proteins into smaller pieces. It's manufactured by a company called EVER Neuro Pharma. Because it's a mixture rather than one specific molecule, it doesn't have a single defined chemical structure the way most peptides do.

WHAT DOES IT DO?

The idea is that this mixture of brain-derived proteins mimics natural brain-growth chemicals (like BDNF and similar factors), potentially helping protect brain cells from dying, reducing overexcitement of nerve cells that can cause damage, and encouraging the brain's ability to rewire itself (called neuroplasticity). Because it's a complex mixture rather than a single molecule, scientists haven't pinned down one specific target it acts on — the way it might work is more of an educated guess than a confirmed mechanism.

WHY ARE RESEARCHERS INTERESTED?

Researchers have studied Cerebrolysin mainly for stroke recovery, dementia, and traumatic brain injury, hoping it might help protect and repair brain tissue after damage.

WHAT DO HUMAN STUDIES SHOW?

There have been many human studies, but the overall picture is mixed and leans unfavorable. A major independent review of all the best-quality stroke studies (called a Cochrane review) found no real evidence that it helps reduce death or disability after a stroke (Cochrane review). However, one specific trial (called CARS) did find improved arm/hand movement recovery when given early after a stroke (study), and a separate analysis combining 9 trials found some positive trend (analysis). So the honest picture is: some individual studies look promising, but when all the best evidence is combined, it doesn't clearly prove the drug works, and there are concerns about study quality and where these positive studies were done.

ANIMAL RESEARCH

The existing profile data does not detail specific animal studies for Cerebrolysin — the evidence base described is centered on human clinical trials, given the extensive human trial history for stroke, dementia, and brain injury.

SIDE EFFECTS

It's generally described as well tolerated. A safety analysis combining 12 trials found no meaningful increase in side effects overall compared to placebo (safety analysis), though one specific Cochrane review raised a possible signal for more serious (though non-fatal) side effects in some studies (Cochrane 2017). Reported issues include reactions where it's injected, dizziness, restlessness, and since it's made from pig brain tissue, there's a theoretical risk of allergic reaction in some people.

EXPERIMENTAL RESEARCH DOSES

It's given through an IV infusion or into the muscle in research and medical settings. Because it's a mixture of proteins and amino acids rather than one pure substance, there isn't a single, clean number for how long it stays active or how well it's absorbed. This is purely educational information about how it's administered in studies, not a usage suggestion.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Cerebrolysin has an active nootropic community discussion, especially on Reddit's r/Nootropics and r/Cerebrolysin. Reports are notably mixed. Some users describe significant improvements in memory, focus, and a mood lift lasting 2-3 months after a course of injections (Reddit r/Nootropics), while others report the opposite — significant fatigue, brain fog during the treatment period (that some say clears up afterward), and difficulty functioning on dosing days. One older, widely referenced post described 'extreme success' with major improvements across memory, emotional awareness, and even sensitivity to music after three weeks of use (Reddit r/Nootropics). A commonly mentioned practical downside is the need for injections into the muscle, which some users find too uncomfortable or inconvenient to complete a full course. Overall, the community discussion reflects the same uncertainty found in the actual clinical trial evidence — some people report dramatic benefits, others report little more than temporary fatigue.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community-reported protocols commonly describe dosing schedules of 5 days on and 2 days off, using around 3-10 milliliters (ml) per injection depending on the source and product concentration, for a period of about 2 months (Reddit r/Nootropics). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Cortagen · No. 18

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
20 mg	$70	$350

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Cortagen is a very short, lab-made chain of just 4 amino acids (called a tetrapeptide), with the chemical name Ala-Glu-Asp-Pro (often abbreviated AEDP). It comes from a Russian research program (started by scientist Vladimir Khavinson) that makes 'short peptide bioregulators' — tiny peptides designed to mimic signals related to specific organs, in this case modeled after a brain-related product called Cortexin.

WHAT DOES IT DO?

Unlike most peptides that work by attaching to a specific receptor on the outside of a cell, Cortagen is proposed to actually enter cells and interact directly with DNA and the proteins that package DNA (histones), theoretically changing which genes get turned on or off in a tissue-specific way (Khavinson). Reported downstream effects in early research include changes in gene activity in heart tissue and possible antioxidant (free-radical-fighting) effects. No specific receptor for Cortagen has been identified, so this proposed mechanism is more of a hypothesis than a confirmed fact.

WHY ARE RESEARCHERS INTERESTED?

Researchers have looked at Cortagen mainly for potential brain protection, particularly around blood-flow-related brain injury (like reduced blood flow to the brain, called ischemia). There isn't strong published support for other commonly discussed uses.

WHAT DO HUMAN STUDIES SHOW?

There is no adequately sized, independently confirmed human clinical trial for Cortagen in the world's medical literature. The research that does exist is almost entirely small-scale animal studies, largely from one connected group of researchers, with much of it published in Russian. There is essentially no independent Western replication of these findings, meaning outside scientists haven't confirmed the results.

ANIMAL RESEARCH

Reported animal studies (mostly from the same research lineage) suggest Cortagen may help protect brain cells in models simulating reduced blood flow to the brain (called ischemic preconditioning) (study), and it's been studied alongside a related product (Cortexin) for long-term reduced brain blood flow conditions (study). These studies are small and preclinical (meaning done before any human testing), so they can't be treated as proof it works the same way in people.

SIDE EFFECTS

There's no formal safety testing that specifically evaluated Cortagen — no measured maximum safe dose, no tracked side effect list, and no info on who shouldn't take it. The broader research tradition around this class of short peptides claims they have 'no side effects' and don't trigger immune reactions, but this claim is based on general theory about the peptide class, not on dedicated safety studies of Cortagen itself. In plain terms: the absence of reported harm reflects a lack of testing, not proof that it's actually safe.

EXPERIMENTAL RESEARCH DOSES

There's no established dosing data from human research since no human trials exist. As an unprotected, very short peptide, it would likely break down quickly in the body, but this hasn't actually been measured and confirmed.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Cortagen has a small but genuine following in the 'bioregulator peptide' corner of biohacking communities, discussed on Reddit's r/Peptides, r/PurePeptides, r/PeptideGuide, and older forums like LONGECITY. It's frequently compared to Cerebrolysin and Cortexin as a more precise, easier-to-standardize alternative for brain recovery, and is often described in the community as helping with brain fog, mental fatigue, and post-stress or post-injury cognitive support rather than as a quick stimulant-like boost (Reddit r/PeptideGuide). One user described it as part of a broader stack combined with other bioregulators like Vesugen and Pinealon, reporting reduced anxiety and improved cognitive sharpness, though this was one part of a larger multi-peptide combination so it's hard to credit to Cortagen alone (Reddit r/Biohackers). Another user reported using it long-term alongside Cortexin for nerve repair without apparent problems (Reddit r/Peptides). Overall, public community discussion for this peptide is present but modest — it's a niche topic discussed mostly within dedicated bioregulator/peptide communities rather than mainstream biohacking spaces, and reports of specific, isolated effects (not combined with other peptides) are limited.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community reports describe doses around 1 milligram (mg) injected under the skin, sometimes combined in the same syringe with other bioregulator peptides, taken in cycles that can run for extended periods with breaks (some describe 5 days on, 2 days off, run indefinitely) (Reddit r/Peptides; Reddit r/Biohackers). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Dermorphin · No. 19

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
5 mg	$60	$300

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Dermorphin is a small chain of 7 amino acids that was discovered in the skin of South American tree frogs (Phyllomedusa species). It's made naturally by these frogs as a defense chemical. Despite being filed under 'Cognitive/Neurological' in some lists, it's really not a brain-boosting peptide at all — it's an extremely powerful opioid painkiller, similar in effect to morphine but far stronger (prodermorphin processing).

WHAT DOES IT DO?

Imagine your body has 'pain volume knobs' called opioid receptors. Dermorphin grabs onto one particular type of these knobs (called mu-opioid receptors) extremely tightly and turns the pain volume way down — even more effectively than morphine, gram for gram (Erspamer/Melchiorri, Br J Pharmacol 1981). It works through the exact same basic system that drugs like morphine, oxycodone, and heroin use, which is why it carries the same kinds of risks as those drugs.

WHY ARE RESEARCHERS INTERESTED?

The only well-supported area of interest is pain relief. There is no credible scientific evidence that it helps with brain function, mood, or cognitive performance — despite sometimes being marketed alongside 'smart drugs.' It has also drawn attention (negatively) as an illegal doping agent, most famously nicknamed 'frog juice' when used to make racehorses run through pain in horse racing.

WHAT DO HUMAN STUDIES SHOW?

There is no modern controlled human clinical trial program for dermorphin. Some limited historical human exposure has been documented in a review discussing why its drug development was abandoned (J Pain Res 2018), but this isn't the same as a proper clinical trial proving safety or effectiveness in people today.

ANIMAL RESEARCH

In animal models, dermorphin has been shown to be an extremely strong painkiller — far more potent than morphine on a dose-for-dose basis (Br J Pharmacol 1981). Scientists have also used dermorphin-like molecules as lab tools to study different sub-types of opioid receptors in animals (PNAS 1992).

SIDE EFFECTS

Because dermorphin acts on the same receptors as morphine and fentanyl, it carries the same dangerous risks: slowed or stopped breathing (respiratory depression), extreme drowsiness, slowed heart rate, physical dependence, tolerance (needing more to get the same effect), withdrawal symptoms, and the real possibility of fatal overdose — made worse by the fact that it's extremely potent and illicit versions have unknown concentrations. Mixing it with other sedating drugs is especially dangerous. Among all peptides in this category, this one carries the single highest risk of acute, serious harm.

EXPERIMENTAL RESEARCH DOSES

Published pharmacology research doesn't establish a specific human dose since there's no formal human clinical trial program. Animal studies used doses appropriate for rodents to demonstrate its extreme potency relative to morphine. A specific validated human dose, half-life, or bioavailability has not been established in the scientific literature.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Dermorphin shows up frequently in online opioid/biohacking discussions, and the tone is a mix of curiosity and serious caution. On r/PeptideForum and r/Biohackers, self-described users describe injecting it (mostly intramuscular or subcutaneous, since oral and nasal routes reportedly don't work well) for severe pain, often reporting a strong feeling of warmth alongside noticeable breathing suppression that requires consciously remembering to breathe — a serious warning sign. Multiple posters stress they would never use it intravenously due to overdose risk, and recommend having naloxone (Narcan) and another person present. On a ME/CFS forum, one long-time chronic-illness patient reported noticeable improvements in brain fog and energy using very low doses (around 170 mcg), which is one of the few reports connecting it to any cognitive-type benefit — though this is a single anecdotal case, not scientific evidence. Community members broadly agree that recreational/'high'-seeking use is disappointing or dangerous, and information is scarce compared to more common peptides. It also has a long, well-documented history as an illegal doping agent in horse racing, called 'frog juice' (New York Times).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Reported subcutaneous/intramuscular doses in online anecdotes range from as low as 0.01 mg (10 mcg) up to 5–10 mg in more extreme, tolerance-affected cases, with many posters mentioning ranges around 100–500 mcg for pain or sleep purposes (r/PeptideForum; Phoenix Rising forum). One person on a drug-use forum reported taking as much as 1500 mcg attempting a recreational high. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

DSIP · No. 20

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
2 mg	$25	$125
5 mg	$35	$175
10 mg	$65	$325
15 mg	$70	$350

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

DSIP stands for Delta Sleep-Inducing Peptide. It's a tiny chain of 9 amino acids (the building blocks of proteins) that scientists first found in the blood of rabbits back in the 1970s, while the rabbits were being made to sleep using electrical stimulation (Schoenenberger & Monnier, PNAS 1977). So it's a naturally occurring substance, not something invented in a lab from scratch — but nobody has found the exact 'lock' (receptor) in the body that it's supposed to fit into, which is unusual for a hormone-like molecule.

WHAT DOES IT DO?

Think of DSIP as a message with no confirmed mailbox. Scientists believe it nudges the brain toward deep, 'slow-wave' sleep (the deepest, most restorative stage of sleep) and may also tweak hormone systems in the brain that control stress hormones and growth hormone release (DSIP, slow-wave sleep and GH release, PNAS 1988). It may also have some protective effect on brain cells after injuries like seizures or strokes in animal studies (intranasal DSIP in stroke recovery). But exactly how it does any of this is still a mystery — scientists describe its effects without fully knowing the mechanism.

WHY ARE RESEARCHERS INTERESTED?

Sleep quality is the main area of interest, since its name literally comes from sleep research. There's also some interest in brain protection/recovery after injury (like stroke), based on animal studies.

WHAT DO HUMAN STUDIES SHOW?

In the 1980s, small groups of people with insomnia were given DSIP through injections and reported better sleep after a single dose, and even better results after repeated use over time (DSIP in insomnia, Eur Neurol 1984; Experientia 1981; Eur Neurol 1987). But these studies were tiny, done mostly by one research group, weren't well controlled (meaning there wasn't a solid comparison group), and have never been redone with modern, rigorous methods. So while the early results sound promising, they haven't been confirmed since.

ANIMAL RESEARCH

In rats, DSIP appeared to boost deep sleep and affect the release of growth hormone. It also showed possible protective effects on the brain in animal models of seizures and stroke, including when given through the nose (intranasal DSIP stroke study). These are early-stage findings in animals, not proof it works the same way in people.

SIDE EFFECTS

The old human studies from the 1980s didn't report any serious problems, but the groups tested were far too small to say it's actually safe. There's no modern safety data at all — no information on drug interactions, no long-term studies, nothing. Because DSIP might affect stress-hormone and growth-hormone systems, there's a theoretical concern about hormone imbalance, but this hasn't actually been studied.

EXPERIMENTAL RESEARCH DOSES

In the human sleep studies from the 1980s, researchers used about 25 nanomoles per kilogram of body weight, given by injection (into a vein or under the skin) shortly before bedtime. Some studies used single doses, others used repeated dosing where the sleep-improving effect seemed to build up over time. This information is purely from historical research studies, not a usage recommendation.

WHAT IS THE RESEARCH COMMUNITY SAYING?

There's active discussion of DSIP on peptide-focused Reddit communities. One detailed Reddit review describes extremely vivid, multi-layered dreams (the poster compares it to the movie 'Inception') and feeling more rested after starting around 500 mcg. Interestingly, several users in that same thread mention that at lower doses (150–300 mcg) DSIP can paradoxically make people feel more alert or awake rather than sleepy, and that this sometimes flips to a sedating effect at a higher dose. The main themes across community reports are vivid dreaming, improved subjective sleep quality, and a dose-dependent stimulating-vs-sedating effect that varies by person. No major safety scares are mentioned, but this is all self-reported and not medically verified.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community reports mention starting doses around 100–300 mcg, with one detailed reviewer settling on 500 mcg as their regular dose and briefly trying 750 mcg. Reports suggest lower doses (150–300 mcg) sometimes cause alertness rather than sleep, while doses in the 300–500 mcg range are more commonly linked to the desired sleep effect (Reddit r/USPeptides). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Humanin · No. 21

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
10 mg	$90	$450

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Humanin is a small 24-amino-acid peptide that your own body already makes. What's unusual is where it comes from: it's coded not by regular DNA in the cell's nucleus, but by a hidden set of instructions inside your mitochondria — the tiny structures in cells often called the 'powerhouses' because they make energy (Karachaliou & Livaniou review, Biology 2023). So it's a completely natural substance, and scientists have also made a stronger lab-modified version called HNG.

WHAT DOES IT DO?

Think of Humanin as a bodyguard for your cells. It attaches to specific docking points on the outside of cells and also acts inside cells to block the 'self-destruct' signal (a process called apoptosis) that stressed or damaged cells sometimes trigger (Biology 2023 review). By blocking this self-destruct signal, it may help protect cells from stress, improve how the body handles insulin (a hormone that manages blood sugar), and help keep the connections between brain cells intact.

WHY ARE RESEARCHERS INTERESTED?

The main interest areas are longevity/aging (since Humanin levels drop as people get older), brain function protection, and diabetes-related research (insulin sensitivity). There's an important caution flag too: because Humanin protects cells from dying, it might also protect cancer cells in some situations, which researchers see as a serious downside worth studying.

WHAT DO HUMAN STUDIES SHOW?

There is no human clinical trial where people were actually given Humanin as a treatment for brain function or anything else — that kind of interventional study doesn't exist yet. What we do have is 'observational' human data: scientists have measured natural Humanin levels in people's blood and noticed that levels decline with age and relate to markers of mitochondrial and metabolic health (stress-resistance review; Aging 2020 lifespan study). That's useful information, but it's very different from testing whether giving someone extra Humanin actually helps them.

ANIMAL RESEARCH

In animal studies, Humanin (and the stronger HNG version) protected brain cells in models of Alzheimer's and Parkinson's disease, including when delivered through the nose (intranasal humanin in Parkinson's model). It also helped preserve the connection points between brain cells (synapses) in aging-related lab studies (astrocyte-released humanin study). On the flip side, one study found that Humanin's cell-protecting signaling can help certain brain tumors (glioblastoma) resist chemotherapy — a warning sign that 'protecting cells' isn't always a good thing (Cancers 2023).

SIDE EFFECTS

There is no human safety data because Humanin has never been formally given to people in a controlled trial. Based on how it works, scientists flag two theoretical concerns: since it stops cells from self-destructing, it could theoretically help cancer cells survive too (supported by the glioblastoma finding above), and since it affects insulin-related hormone pathways, it could have unstudied effects on blood sugar and hormones. These are things to watch for, not confirmed side effects, since no formal studies have looked for them in people.

EXPERIMENTAL RESEARCH DOSES

Because there's no established human dosing in published research, and delivery methods in animal studies (injections into the belly, into the brain fluid, or through the nose) don't translate directly to a human dose, there is no scientifically established amount, frequency, or route for humans. Any specific numbers you might see online are not backed by actual research studies.

WHAT IS THE RESEARCH COMMUNITY SAYING?

On r/Peptides, users describe Humanin as a peptide with no immediately noticeable effects in the short-to-medium term — it's talked about as something people take hoping for long-term healthspan benefits rather than a quick feeling of improvement, often alongside growth hormone use (since growth hormone may lower the body's own natural Humanin levels). One commenter mentions that centenarians (people who live to 100+) and long-lived animals like naked mole rats tend to have naturally higher Humanin levels, which fuels interest even though it's correlational (meaning it shows a pattern, not proof of cause and effect). Overall community sentiment is cautious and speculative — people acknowledge it 'hasn't been available long enough' to know long-term effects.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Online protocol guides (not peer-reviewed research) commonly suggest 1–5 mg per day of native Humanin, or much smaller microgram-range doses (roughly 50–200 mcg) of the more potent HNG version, given under the skin, typically starting low for a week or two before increasing (Peptides Academy protocol). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

L-Carnitine · No. 22

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
10 mL (600 mg/mL	$60	$300

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

L-Carnitine isn't actually a peptide — it's a small nutrient-like molecule your body makes naturally from two amino acids (protein building blocks). A related form called acetyl-L-carnitine (ALCAR) is especially relevant for brain research because it can cross into the brain more easily. Both are widely available as over-the-counter supplements.

WHAT DOES IT DO?

Picture your cells as tiny factories that burn fat for fuel. L-Carnitine is like the delivery truck that carries fat molecules into the part of the cell (the mitochondria) where they get burned for energy. Acetyl-L-carnitine does this too, but can also cross into the brain and help make a brain chemical called acetylcholine, which is important for memory and thinking (Ames lab study, PNAS 2002).

WHY ARE RESEARCHERS INTERESTED?

The strongest, most established use is for a specific medical condition called carnitine deficiency. There's ongoing but disappointing interest in brain function/cognitive enhancement and dementia, plus some smaller studies looking at mood (depression) and nerve pain related to diabetes.

WHAT DO HUMAN STUDIES SHOW?

This is one of the most heavily studied and, honestly, disappointing peptide-adjacent compounds when it comes to brain benefits. A major Cochrane review (a highly respected type of research summary) found insufficient evidence that L-carnitine improves thinking skills in healthy people without existing cognitive problems (Cochrane review). Another Cochrane review looked at acetyl-L-carnitine for dementia and concluded it shouldn't be recommended for regular use because there's no clear benefit (Cochrane, ALC for dementia). Some smaller individual studies did show modest positive signals — for example, one trial in people with vascular-related cognitive problems found some benefit using 500 mg three times a day for 28 weeks (RCT with 56 patients) — and there's some encouraging data for depression symptoms and diabetes-related nerve pain specifically (systematic review). The one thing it's clearly proven to help with is treating actual carnitine deficiency, a specific medical condition.

ANIMAL RESEARCH

In aged rats, a combination of acetyl-L-carnitine and another antioxidant (lipoic acid) improved mitochondrial function and reduced cell damage from oxidative stress (Ames lab, PNAS 2002). These animal results looked promising for cell health, but as the human studies above show, that promise mostly didn't carry over into measurable brain benefits for healthy people.

SIDE EFFECTS

Generally well tolerated. Reported issues include nausea, stomach cramps, diarrhea, and a fishy body odor (caused by gut bacteria converting carnitine into a compound called trimethylamine). There's an ongoing scientific debate about whether this same gut-bacteria byproduct (which later becomes a substance called TMAO) might raise heart disease risk over the long term — this is disputed and not settled science (Nutrients 2020 critical update). People with kidney problems or a history of seizures should be cautious, and it can interact with certain medications.

EXPERIMENTAL RESEARCH DOSES

In the studies discussed above, researchers used doses like 500 mg three times daily (1500 mg total per day) over 28 weeks for vascular cognitive impairment, taken by mouth (RCT). Levocarnitine is also available as an FDA-approved injectable medication for treating actual carnitine deficiency. This information reflects what was studied in research, not a usage recommendation.

WHAT IS THE RESEARCH COMMUNITY SAYING?

L-carnitine and its brain-friendly cousin ALCAR come up often on biohacking forums. On r/Biohackers, one user reported no noticeable effect at 500 mg and was advised that ALCAR doses up to about 1500 mg are roughly the practical ceiling, since going higher doesn't seem to add benefit. Another long-term user thread notes it can take up to a year to notice effects from related mitochondrial supplements, with common ALCAR doses cited around 1000 mg in the evening plus 500 mg in the morning for mood and memory support. Overall community sentiment is mixed — some report subtle benefits to energy, sleep, or gym performance, while others report no noticeable difference, which lines up with the mixed/negative clinical trial picture described above.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community-reported doses for ALCAR (the brain-targeted form) commonly range from 500 mg up to about 1.5–3 grams per day taken orally, split into two doses (morning and evening) in several posts (r/Biohackers; r/Biohackers thread). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

N-Acetyl Selank Amidate · No. 23

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
30 mg	$80	$400

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

N-Acetyl Selank Amidate (often called 'NASA' online, unrelated to the space agency) is a lab-modified version of a peptide called Selank, which itself is based on a natural immune-system molecule called tuftsin. Scientists added two small chemical modifications — an 'acetyl' group on one end and an 'amide' group on the other — that are designed to help the peptide resist being broken down by the body. Importantly, no dedicated scientific study of this exact modified version has been found in the medical research database PubMed — nearly everything known about it is borrowed from research on regular Selank.

WHAT DOES IT DO?

The idea is that it works like Selank but lasts longer or hits harder because those chemical modifications protect it from being chopped up by enzymes in your body (the same way scientists have shown similar changes protect a related peptide, Semax, from being broken down (Semax acetyl proteolysis study)). Selank itself is believed to work by adjusting how the brain uses a calming brain chemical called GABA and by boosting natural feel-good molecules called enkephalins (Front Pharmacol 2017; Bull Exp Biol Med 2002).

WHY ARE RESEARCHERS INTERESTED?

Based only on what's known about its parent compound Selank, the areas of interest would be anxiety relief and possibly general stress reduction. But it's important to note this specific modified version has essentially zero dedicated research behind it.

WHAT DO HUMAN STUDIES SHOW?

None exist for this specific compound. There is no human trial of N-Acetyl Selank Amidate. All human evidence on record belongs to the original, unmodified Selank, not this version.

ANIMAL RESEARCH

None exist for this specific compound either. There is no animal efficacy study of N-Acetyl Selank Amidate specifically. Claims that it's stronger, longer-lasting, or better absorbed than plain Selank are based on theory and word-of-mouth reports, not measured scientific findings.

SIDE EFFECTS

Not established at all — there is no toxicology or side-effect data specifically for this modified peptide. For context, unmodified Selank itself has been flagged by pharmacology researchers as a poorly studied drug (originally developed in Russia) that's nonetheless sold as a supplement in the US, with researchers specifically calling for its abuse potential to be studied (Doyno & White, J Clin Pharmacol 2021).

EXPERIMENTAL RESEARCH DOSES

Not established in any published scientific literature for this specific compound. There is no data on half-life, how well it's absorbed, or how it's processed by the body for N-Acetyl Selank Amidate.

WHAT IS THE RESEARCH COMMUNITY SAYING?

There's meaningful discussion on nootropics forums, though opinions vary widely person to person. On r/Nootropics, some users report needing a smaller dose of the acetylated/amidated version to get the same effect as regular Selank, while others say plain Selank works better for them and the modified 'amidate' version didn't do much. On another r/Nootropics thread, users describe the general Selank family (not always distinguishing between versions) as helping them handle stress and anxiety, comparing the feeling to a very mild anti-anxiety medication or L-theanine (a calming amino acid from tea) without requiring a 'build-up' period. Overall, this is a peptide where the community is actively divided on whether the modified version is actually better than the original, and reports are inconsistent from person to person.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community reports don't converge on one clear number; some users mention needing lower total micrograms of the acetylated/amidated version compared to regular Selank to feel similar effects, though exact figures vary widely across posts (r/Nootropics). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

N-Acetyl Semax Amidate · No. 24

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
30 mg	$80	$400

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

N-Acetyl Semax Amidate (also called 'NASA' by online communities) is a chemically modified version of Semax, a peptide developed in Russia that itself is based on a fragment of a natural hormone called ACTH. The modifications — adding an acetyl group and an amide group — are meant to make it more resistant to being broken down by the body, similar to the Selank version above.

WHAT DOES IT DO?

Unmodified Semax is believed to boost levels of BDNF and NGF, two natural 'growth fertilizer' proteins for brain cells, especially after brain injuries like a lack of blood flow (neurotrophin induction study). It's also thought to reduce inflammation-related activity in the brain during injury (Int J Mol Sci 2021). The acetylated/amidated version is theorized to work the same way, just resisting breakdown longer, but this hasn't actually been proven for this exact compound.

WHY ARE RESEARCHERS INTERESTED?

Based on unmodified Semax's research, the areas of interest would be brain injury recovery, and by extension general cognitive/memory support. There's no confirmed independent research interest specifically in the modified version beyond community anecdote.

WHAT DO HUMAN STUDIES SHOW?

None exist specifically for this modified compound — no human trial of N-Acetyl Semax Amidate has been done. All clinical-type evidence belongs to the original, unmodified Semax (which, notably, is only officially registered as a medicine in Russia and some neighboring countries, not in the US or Europe).

ANIMAL RESEARCH

There's no controlled animal effectiveness study of the fully modified (both acetylated and amidated) version either. What does exist is chemistry-focused research showing that adding an acetyl group makes Semax more stable when exposed to biological fluids (Dokl Biol Sci 2013) — but this measures the peptide's stability, not whether it actually works better in a living animal.

SIDE EFFECTS

Not established. There is no formal toxicology testing, no monitoring for bad reactions, and no list of who should avoid it, for this specific modified peptide. Since Semax is based on a fragment of ACTH (a stress-hormone-related molecule), there's a theoretical, unstudied concern about effects on the body's stress-hormone system, and since the modified version resists breakdown longer, its effects in the body may last longer too — with unknown consequences.

EXPERIMENTAL RESEARCH DOSES

Not established in published scientific literature. There's no confirmed half-life, absorption rate, or processing pathway for this specific compound. People online use it through the nose (intranasal) or under the skin, but this isn't backed by formal research for this exact modified form.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Nootropics communities have discussed this compound for over a decade. On an older r/Nootropics thread, one user describes feeling 'overstimulated' especially in the chest/heart area, while noting the modification seems to create a calming counter-effect alongside the stimulation, describing themselves as 'calmer yet more up and focused.' Another user on a related thread tried all three versions (Semax, N-Acetyl Semax, and the amidate) and preferred the amidate for helping maintain focus through a full day, though found higher doses caused irritability. The consistent themes across posts are focus/stimulation and mood effects, with individual results varying a lot — some love it, some find it overstimulating, and dosing is described as needing careful personal calibration.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Reported doses cluster in the range of 100–300 mcg, with one user specifically mentioning dialing back from 300 mcg to 100 mcg due to irritability at the higher amount (r/Nootropics). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

P21 · No. 25

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
10 mg	$65	$325
50 mg	$100	$500

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

P21 (its formal research name is P021) is a small, lab-made peptide built from a piece of a natural protein called CNTF (ciliary neurotrophic factor), which the body uses to help nerve cells survive and grow. It was developed by a research lab (the Iqbal laboratory) that specializes in Alzheimer's disease research. Scientists attached a special chemical piece to one end (a modification called adamantylation) specifically to help it pass through the protective barrier around the brain.

WHAT DOES IT DO?

Picture the brain as normally holding back its own ability to grow new nerve cells, kind of like a brake pedal being held down. P21 works by blocking a signal (from a molecule called LIF) that's part of that brake system, which lets the brain make more new nerve cells (a process called neurogenesis) and strengthens connections between existing ones (Iqbal & Kazim review, Mol Neurodegener 2016). It also boosts a brain-growth protein called BDNF and appears to reduce a harmful, tangled protein buildup (abnormal tau) that's linked to Alzheimer's disease (Kazim et al., PLoS One 2013).

WHY ARE RESEARCHERS INTERESTED?

The main area of interest is brain function and memory, specifically related to Alzheimer's disease and other memory-related conditions, based entirely on results in mice so far.

WHAT DO HUMAN STUDIES SHOW?

There are no human clinical trials of P21 at all. Every piece of research on this peptide comes from a single research lab working with animals.

ANIMAL RESEARCH

In mice bred to develop Alzheimer's-like disease (called 3xTg-AD mice), long-term treatment with P21 improved their thinking/memory performance and reduced disease-related brain damage (J Alzheimers Dis 2021). Similar benefits were reported in mouse models of Down syndrome and prenatal stress from the same research program (Mol Neurodegener 2016). Lab-dish studies on brain cells support that it boosts BDNF, the brain-growth protein mentioned above (PLoS One 2013). One important caveat: nearly all of this research comes from one lab, without much independent confirmation from other research groups.

SIDE EFFECTS

There is no human safety data. In the mouse studies, animals given P21 over months in their drinking water or food didn't show obvious signs of toxicity within those specific studies, but there's no formal safety testing, no measure of a maximum safe dose, and no data on effects during pregnancy or long-term cancer risk. One thing worth watching: constantly stimulating nerve growth over a long period is not a well-studied long-term risk in humans.

EXPERIMENTAL RESEARCH DOSES

In mouse studies, P21 was reportedly given orally through drinking water or food over months, since it's designed to be absorbed well by mouth and able to cross into the brain (Mol Neurodegener 2016). No specific human half-life or dose amount has been established in published research.

WHAT IS THE RESEARCH COMMUNITY SAYING?

P21 has a long history of discussion on longevity-focused forums going back over a decade. A LongeCity forum thread from 2013 summarizes the original mouse research showing improved learning and memory, and references an early Reddit discussion thread as well. A more recent r/NooTopics post explains the science behind its blood-brain-barrier-crossing design and notes its unusually high stability in simulated stomach acid (over 95%), which is part of why some in the community are excited about it as an oral cognitive-support peptide. However, given the lack of human trials, most community discussion stays fairly technical/scientific rather than including many hands-on personal usage reports, and detailed first-person dosing experiences appear to be limited.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Detailed, specific human self-experimentation dosing reports for P21 are limited online compared to more popular peptides — most discussion centers on the mouse research doses rather than established human community dosing conventions. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

PE-22-28 · No. 26

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
10 mg	$50	$250

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

PE 22-28 is a lab-made peptide made of just 7 amino acids. It's a shortened version of a slightly longer natural peptide called spadin, which itself comes from a piece cut off a larger protein called sortilin. The exact letter sequence of its 7 amino acids hasn't been printed in the original scientific publication, so it isn't fully confirmed from that source (Djillani et al., Front Pharmacol 2017).

WHAT DOES IT DO?

Nerve cells have tiny pores (channels) that control electrical activity, and one specific pore called TREK-1 tends to dampen down the activity of mood-related brain cells (serotonin neurons) when it's open. PE 22-28 works by blocking this TREK-1 pore, similar to plugging a hole, which makes those mood-related brain cells more active and encourages the growth of new brain cell connections (spadin original report, PLoS Biol 2010). It's roughly 400–600 times more powerful at this specific blocking job than its parent molecule spadin, and importantly, it doesn't seem to affect several other similar pore types tested, meaning it's fairly selective (Front Pharmacol 2017).

WHY ARE RESEARCHERS INTERESTED?

The primary area of interest is mood/depression, since blocking TREK-1 is linked to antidepressant-like effects in mice. There's secondary interest in brain cell growth (neurogenesis) since it appears to promote new nerve cell formation in the hippocampus (a memory-related brain region) in mouse studies.

WHAT DO HUMAN STUDIES SHOW?

There is no human clinical trial of PE 22-28. The closest thing to human data is an indirect study measuring how levels of the related sortilin-derived propeptide change in people's blood after they receive electroconvulsive therapy for depression (study) — but that's not the same as testing PE 22-28 itself in people.

ANIMAL RESEARCH

In mice, small doses (3.0–4.0 micrograms per kilogram of body weight, given into the belly) reduced signs of depression-like behavior in a standard test where mice are placed in water and their struggling is measured — treated mice struggled almost twice as long compared to untreated mice, suggesting less 'giving up' behavior, a marker researchers associate with antidepressant effects (Front Pharmacol 2017). The same study found it nearly doubled the growth of new brain cells in a memory-related brain region after 4 days of treatment. However, one other research group found conflicting evidence questioning exactly how selectively spadin (the parent molecule) really targets its intended pore, raising some doubt about the precise mechanism (Ma & Lewis 2020).

SIDE EFFECTS

There is no human safety data. In lab dish tests, it didn't disrupt a specific heart-related electrical current at a moderate concentration, which is an early, reassuring (but very limited) safety signal (Front Pharmacol 2017). There's no full toxicology testing, no data on long-term use, and no established list of who should avoid it. Because it affects serotonin-related brain activity, and because it blocks a channel involved in electrical signaling throughout the body, there are unstudied theoretical concerns about mood-related side effects and about long-term effects of blocking this pore type.

EXPERIMENTAL RESEARCH DOSES

In mouse studies, effective doses were very small — around 3.0 to 4.0 micrograms per kilogram of body weight given by injection into the belly (intraperitoneal), and effects were also seen when given by mouth at around 1 milligram per kilogram over a 4-day treatment period. Its effects lasted notably longer than its parent molecule spadin — up to about 23 hours instead of about 7 hours (Front Pharmacol 2017). This is animal research data only and has not been translated into an established human dose.

WHAT IS THE RESEARCH COMMUNITY SAYING?

PE-22-28 has a genuinely active online community, unusual for such an early-stage compound. On r/NooTopics, users report the effect helps with emotional processing and memory, describing it as useful when used every few days rather than daily, with effects that build cumulatively as people work through difficult emotions. On r/Peptides, one user reported persistent dissociation that continued even a month after stopping use, flagging this as a possible concerning side effect worth watching for. Multiple threads on r/Nootropics and elsewhere describe it helping with treatment-resistant depression and memory. A dedicated PE-22-28 subreddit exists, showing a sizeable dedicated user base. A notable caution came from a MAOIs medication forum, where a user combining it with an antidepressant medication reported symptoms bordering on serotonin syndrome (a potentially dangerous overload of serotonin) at a higher dose, which lines up with concerns about combining it with other serotonin-affecting drugs. Overall, this compound stands out for having unusually rich anecdotal reporting despite zero human clinical trials — a gap between community enthusiasm and the very early scientific evidence.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community-reported doses commonly range from about 100 mcg up to 800 mcg per dose, most often given intranasally (as a nasal spray) or subcutaneously (under the skin), with 300–500 mcg once daily being the most frequently mentioned range across multiple threads and dosing guides (r/NooTopics; r/healthwithjessicalana; r/MAOIs). Some users report using it every few days rather than daily. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Pinealon · No. 27

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
5 mg	$30	$150
10 mg	$45	$225
20 mg	$65	$325

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Pinealon is a very short peptide made of just 3 amino acids (called EDR, after the first letters of those amino acids). It's described as coming from a larger substance called Cortexin, a neuroprotective mixture. It belongs to a family of 'ultra-short peptide bioregulators' developed by a research program associated with the scientist Khavinson, based mainly in Russia (Khavinson et al., Molecules 2020).

WHAT DOES IT DO?

The theory is that this tiny peptide can slip into cells, even into the cell's nucleus (control center), and directly interact with DNA and the proteins that package it (histones) — essentially acting like a dial that can turn certain genes up or down (J Phys Chem B 2019). Researchers have proposed it might turn on genes related to antioxidant protection (helping cells fight off damage) and turn down genes related to cell death, and it may also boost serotonin (a mood-related brain chemical) production in brain cells.

WHY ARE RESEARCHERS INTERESTED?

Based on the existing research, the main areas of interest are brain function/memory support, and general cell protection against stress and aging, including preserving the shape of connections between brain cells.

WHAT DO HUMAN STUDIES SHOW?

The available human evidence is limited and comes from open-label studies (meaning everyone knew they were getting the real treatment — there was no blind comparison group) rather than rigorous, gold-standard trials. One study involved 72 patients with lingering symptoms after brain injury or general mental fatigue, given oral Pinealon along with their standard treatment; they reportedly showed improved memory, less headache, and better performance on certain tests, along with a specific brainwave change (increased alpha activity on EEG) (Molecules 2020 review). No properly randomized, placebo-controlled human trial has been found, and the study didn't report detailed dosing or side-effect information.

ANIMAL RESEARCH

In rats, Pinealon reduced a marker of cell-death signaling (called caspase-3) in the brain and improved maze-learning performance under low-oxygen stress conditions, in both young and old rats (caspase-3 study; carotid-occlusion study). Most of the total evidence for this peptide — roughly 22 published studies — comes from one closely connected group of researchers rather than many independent labs.

SIDE EFFECTS

Not formally established. The source research describes ultra-short peptides like this one as having an 'absence of side effects' and no species-specific reactions, but this claim is not backed up by any formal safety study, maximum-safe-dose testing, long-term monitoring, or list of who should avoid it (Molecules 2020 review). Notably, the human study itself reported that ethics-board review and informed consent were 'not applicable,' which is unusual and suggests the study didn't follow standard modern research practices.

EXPERIMENTAL RESEARCH DOSES

The human study mentioned above used Pinealon taken by mouth (orally), given alongside standard medical treatment, but the specific dose amount, frequency, and treatment length were not clearly reported in the available research summary. No dose or frequency has been formally validated in a rigorous clinical study.

WHAT IS THE RESEARCH COMMUNITY SAYING?

There's modest but genuine community discussion. On r/Peptides, one user tried it as a nasal spray, found it 'mildly caustic' or irritating in the nose, and after two weeks hadn't noticed clear cognitive benefits, choosing to focus instead on other nootropic peptides they found more immediately noticeable. This matches the pattern the instructions warn about — Pinealon is a fairly obscure Khavinson-school peptide, and honest community reports suggest its effects, if any, are subtle and slow to appear compared to some other nootropic peptides, rather than dramatic.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Online dosing guides (not scientific studies) commonly suggest 5–10 mg given under the skin (subcutaneously) once daily, typically in short courses of about 10–20 days, describing this explicitly as a 'community convention' rather than a dose backed by any clinical trial (The Peptide Catalog dosing guide). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Selank · No. 28

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
5 mg	$40	$200
10 mg	$50	$250
30 mg	$75	$375

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Selank is a lab-made molecule built from seven amino acids (amino acids are the small building blocks that string together to make proteins). Scientists in Russia created it at the Institute of Molecular Genetics by taking a natural body chemical called tuftsin — which helps the immune system — and adding a few extra building blocks to make it last longer in the body. It's not something your body makes on its own; it's a human-designed copy inspired by a natural substance, made specifically to calm anxiety.

WHAT DOES IT DO?

Think of your brain as having its own natural "feel-good" and "calm-down" chemicals. Selank seems to slow down the breakdown of one of these calming chemicals (called an enkephalin, a natural pain- and stress-easing substance your brain makes), so more of it sticks around longer. It also seems to nudge genes that control a calming brain chemical called GABA. The overall effect researchers are looking for is less anxiety without the drowsy, foggy feeling you get from typical anti-anxiety pills like Xanax or Valium (Zozulya et al. 2008; Sokolov et al. 2002).

WHY ARE RESEARCHERS INTERESTED?

Researchers are mainly interested in Selank for anxiety relief. Some studies also point to mild mental-alertness and energy-boosting ("antiasthenic") effects alongside the calming effect, but there isn't solid evidence for things like fat loss, muscle growth, or sleep.

WHAT DO HUMAN STUDIES SHOW?

There was one real clinical trial with 62 people who had generalized anxiety disorder or nervous exhaustion. Half got Selank and half got a standard anti-anxiety drug called medazepam. Selank worked about as well as the drug at reducing anxiety, based on standard psychiatric rating scales, and people also reported feeling less tired and mentally sharper (Zozulya et al. 2008). A second trial looked at how to best use Selank for anxiety treatment (Medvedev et al. 2015), and a brain-scanning (fMRI) study looked at how Selank and a related peptide called Semax affect brain connections (Dokl Biol Sci 2020). The catch: all of these studies were small, done in Russia by the same research circles, and have never been repeated by independent scientists elsewhere in the world.

ANIMAL RESEARCH

Animal studies (mostly rodents) back up the anxiety-reducing effect and show Selank does block the enzyme that breaks down the calming brain chemical mentioned above. These early animal studies are part of why scientists became interested in testing it in people in the first place.

SIDE EFFECTS

In the Russian human trials, people didn't report the sleepy, sedated feeling you get from typical anxiety medications, and there were no signs of addiction or withdrawal. Minor complaints included some nasal irritation (when used as a nasal spray) and temporary tiredness. However, an independent U.S. review of the science flagged a real concern: Selank affects the same calming brain system as addictive drugs, but it's sold in the U.S. as a supplement without anyone properly checking whether it could be misused or become habit-forming (Doyno & White 2021). There's no long-term safety data at all.

EXPERIMENTAL RESEARCH DOSES

In the main clinical trial, Selank was given as a nasal spray, which is the officially approved way to use it in Russia; it has also been studied when swallowed (orally). The exact amounts used session-by-session weren't detailed in the summarized source, and there's no confirmed number for how long it stays active in the human body.

WHAT IS THE RESEARCH COMMUNITY SAYING?

On Reddit (r/Anxiety, r/Nootropics, r/Biohackers) and forums like musclechemistry.com, many users describe Selank as gently reducing anxiety without the sedation or "zombie" feeling of prescription anxiety drugs, calling it useful for social anxiety and generalized anxiety (r/Nootropics; r/Biohackers; r/PeptidePathways). Some report it's "gentle" but not as strong as they hoped, comparing it unfavorably to cheaper supplements like L-theanine (r/Nootropics). A few people reported rough first-use reactions like vomiting, hot/cold flashes, and a racing heart before settling into a calmer state (r/Anxiety), and at least one person reported a "paradoxical" reaction of worsened insomnia and anxiety at higher doses (r/Nootropics). Community members frequently mention combining it with Semax and often prefer subcutaneous injection over nasal spray for more consistent effects.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Online discussions mention doses ranging from a single nasal spray to as much as 900 mcg per day (which matches the official Russian prescription protocol of 300 mcg three times daily for 10-14 days) (trimrx.com). The most commonly discussed range for injectable use is around 250-300 mcg per day, while nasal spray users commonly discuss 200-400 mcg taken 2-3 times daily (peptideeffect.com). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Semax · No. 29

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
5 mg	$40	$200
10 mg	$45	$225
30 mg	$75	$375

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Semax is a lab-made chain of seven amino acids (the building blocks of proteins), created by Russian scientists at the Institute of Molecular Genetics. It was built from a small fragment of a natural hormone called ACTH (a hormone your body makes to respond to stress), but engineered so it doesn't trigger the hormone-related side effects of the original — instead, it was designed to protect and support brain cells.

WHAT DOES IT DO?

Imagine your brain has natural "fertilizer" chemicals that help brain cells grow, repair, and survive — these are called neurotrophins (like BDNF). Semax seems to boost the brain's production of these protective chemicals, especially after an injury like a stroke where blood flow gets cut off. In animal studies, it also calms down harmful inflammation in the brain and interferes with a protein buildup process linked to memory problems. In short, it's being studied as a way to protect and support brain cells and even sharpen focus and thinking.

WHY ARE RESEARCHERS INTERESTED?

Researchers are mainly interested in Semax for brain function and protecting the brain after injury (like stroke), along with cognitive support/focus. There isn't solid evidence in the source data for other categories like fat loss, muscle growth, or sleep.

WHAT DO HUMAN STUDIES SHOW?

In Russia, Semax has real clinical use for stroke, "mini-strokes" (transient ischemic attacks), certain eye-nerve disorders, and cognitive problems. There's also a brain-scanning (fMRI) study looking at how Semax (and Selank) affect connections between brain regions (Dokl Biol Sci 2020), and a broader review summarizing this Russian research (review). The important caveat: these studies are small, come from one country/research network, weren't always run to the strict standards used in the West, and have never been independently confirmed by outside scientists. Using it just to boost focus in healthy people is based on personal reports, not real trials.

ANIMAL RESEARCH

This is where the strongest evidence lies. In rodent studies, Semax reliably increased brain-protective chemicals (BDNF and NGF) after a stroke-like injury was induced (neurotrophin study). Large-scale gene studies in rats showed Semax adjusts hundreds of genes related to inflammation and blood vessels after brain injury (BMC Genomics 2014; transcriptome study). It also reduced certain damage-related proteins in rat brains after simulated stroke (Int J Mol Sci 2021) and affected how a protein linked to Alzheimer's clumps together in lab dishes (study).

SIDE EFFECTS

In Russian clinical use, Semax is reported as generally well tolerated. The most common complaint is nasal irritation (it's usually given as a nasal spray), and it doesn't cause the hormone-related side effects of the original ACTH molecule it's based on. However, there's no independent Western safety database and no full official toxicology testing available in international scientific literature, so long-term safety and drug interactions aren't well mapped out.

EXPERIMENTAL RESEARCH DOSES

Semax is given as a nasal spray in its officially registered use in Russia, and has also been studied via injection. It breaks down quickly in the body, though the exact number for how long it stays active hasn't been nailed down in accessible published research. Taking it as a pill doesn't work well because very little gets absorbed that way.

WHAT IS THE RESEARCH COMMUNITY SAYING?

On r/Nootropics, Longecity, and similar forums, many users describe strong improvements in mental clarity, memory, focus, and reduced brain fog, with some describing dramatic relief from long-standing brain fog and speech difficulty within days (r/Nootropics experience). Others report more modest but noticeable focus gains (r/Nootropics; Longecity). Reported downsides include overstimulation, anxiety, irritability, and in a few cases severe mood crashes, especially at high doses or from certain suppliers (r/Nootropics bad experiences). Some users note vivid dreams, appetite suppression, and trouble falling asleep. People frequently debate injectable versus nasal forms, with injectable reportedly giving stronger but less convenient effects (r/Nootropics injectable vs nasal).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community reports commonly describe nasal spray doses around 200-300 mcg per spray, with total daily amounts often in the range of 400 mcg to 1.2 mg split across a few doses (r/Nootropics; Longecity). Some vendors sell 0.1% and 1% concentration nasal sprays, with people debating which strength suits beginners versus experienced users (r/Nootropics). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

SECTION 03

Metabolic / Weight Research

12
COMPOUNDS

GLP-1/GIP/glucagon-receptor peptides studied for blood sugar control, appetite, and body-composition research.

5-Amino-1MQ · No. 30

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
5 mg	$31	$155
10 mg	$60	$300
50 mg	$70	$350

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

5-Amino-1MQ is not actually a peptide (a chain of amino acids) — it's a small, lab-made chemical compound. It was created by scientists as a way to block a specific enzyme in the body called NNMT, which is involved in how cells store and burn fat (Neelakantan et al. 2018). It doesn't exist naturally in the body; it's a purpose-built research tool.

WHAT DOES IT DO?

Your fat cells have an enzyme (a protein that speeds up chemical reactions) called NNMT that, when overactive, seems to slow down fat burning and lower a cell's energy currency called NAD+. 5-Amino-1MQ blocks this enzyme, which in lab studies raised NAD+ levels in cells and seemed to help the body burn fat rather than store it — like taking the parking brake off a car engine.

WHY ARE RESEARCHERS INTERESTED?

Researchers are interested in this compound purely for fat loss/weight management purposes, based on animal data. There's no solid evidence in the source material for muscle growth, sleep, brain function, or other benefit areas — those come from vendor marketing, not the actual studies.

WHAT DO HUMAN STUDIES SHOW?

None. No human studies of any kind were found for 5-Amino-1MQ. Any claims about it helping people lose fat that you might see on sales websites are not backed up by any real clinical trial in humans.

ANIMAL RESEARCH

In mice that were fed a high-fat diet to make them obese, giving them 5-Amino-1MQ by injection for 11 days led to about 5% body weight loss, compared to a slight weight gain in mice given a placebo. Their fat tissue shrank by about 35%, their fat cells got about 30% smaller, and their cholesterol dropped by about 30% — all without the mice eating less food, and without any signs of toxicity (Neelakantan et al. 2018). A later study found that combining this NNMT-blocking approach with a low-fat diet helped normalize body fat and changed the mix of gut bacteria in mice (Sci Rep 2022).

SIDE EFFECTS

There's no human safety data at all. In the mouse studies, no toxicity was observed over the 11-day study period. But what happens with longer-term use, or in humans, is completely unknown — scientists haven't studied whether blocking this enzyme long-term causes any problems.

EXPERIMENTAL RESEARCH DOSES

In the mouse study, researchers used 20 mg per kilogram of body weight, given by injection three times a day (adding up to about 34 mg/kg per day), for 11 days. Lab tests suggest the compound could potentially be absorbed if swallowed, but there's no confirmed information yet about how long it stays active in a living body or how well it's absorbed outside of test-tube experiments.

WHAT IS THE RESEARCH COMMUNITY SAYING?

There's a substantial community discussing 5-Amino-1MQ on Reddit forums like r/ResearchCompounds, r/PeptideForum, r/Biohackers, and r/suppgains. Many describe a slow, subtle effect rather than dramatic results — one user described no stimulation or appetite change but gradual fat loss becoming easier to achieve after 2-3 weeks when combined with training and diet (r/ResearchCompounds). Others report it works best for people who are overweight, describing a noticeable metabolic and energy boost, with claims that it's most effective as a supplement to an already-good diet rather than a standalone fat burner (r/PeptideForum; r/Biohacking). A few users reported emotional blunting (feeling emotionally muted) at higher doses, and injectable forms were reported by some as painful at the injection site (r/PeptideForum).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Oral doses discussed online commonly range from 25-75 mg per day, often split into two doses (e.g., 25 mg in the morning and 25 mg in the afternoon) (r/ResearchCompounds). Injectable use is discussed at a much lower range, with some users starting at 1-2 mg and working up to 5-20 mg daily (r/BodyHackGuide; r/Biohacking). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Adipotide · No. 31

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
2 mg	$90	$450
5 mg	$100	$500

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Adipotide is a lab-engineered peptide (a chain of amino acid building blocks) designed like a guided missile. One part of it is a "homing" sequence that seeks out blood vessels feeding fat tissue, and the other part is a "warhead" sequence that destroys cells once it arrives. It was built by combining these two pieces on purpose, rather than being derived from anything natural in the body (Barnhart et al. 2011; Kolonin et al. 2004).

WHAT DOES IT DO?

Instead of directly burning fat, Adipotide works by cutting off fat tissue's blood supply. The "homing" part latches onto a protein found specifically on blood vessels that feed white fat tissue. Once it locks on, the "warhead" part destroys the cell from the inside by damaging its energy-making machinery (mitochondria). Without blood flow, the fat tissue shrinks and dies off — this is a much more aggressive approach than typical fat-loss peptides.

WHY ARE RESEARCHERS INTERESTED?

Researchers are interested in Adipotide purely for fat loss/obesity reversal. The strategy is unique compared to other metabolic peptides — it doesn't try to boost metabolism, it tries to physically eliminate fat tissue by cutting its blood supply.

WHAT DO HUMAN STUDIES SHOW?

Only one human study was ever registered — a small early-stage (phase 1) trial in men with advanced prostate cancer who were also obese, run at MD Anderson Cancer Center. That trial was listed as terminated (stopped) and no results about whether it worked or was safe in humans were ever published (ClinicalTrials.gov NCT01262664).

ANIMAL RESEARCH

This is where almost all the real evidence comes from. In obese mice, the targeted approach wiped out white fat tissue and reversed obesity and metabolic problems (Kolonin et al. 2004). In obese monkeys given daily injections for 28 days, they lost around 7-15% of body weight, lost significant total body fat, and their bodies got noticeably better at handling insulin (a hormone that manages blood sugar) (Barnhart et al. 2011).

SIDE EFFECTS

The biggest concern is kidney damage. In the monkey studies, higher doses caused signs of kidney stress and even tissue damage under the microscope, though this mostly reversed after stopping the drug. Because kidneys are also fed by blood vessels, the same "missile" approach that destroys fat blood vessels appears to also affect kidney blood vessels at higher doses. There's no human safety data since the only human trial never reported results, so anyone with existing kidney problems would be an obvious concern if this were ever used in people.

EXPERIMENTAL RESEARCH DOSES

In monkey studies, Adipotide was given as a daily injection under the skin (subcutaneous), at various doses up to about 0.75 milligrams per kilogram of body weight, over periods around 28 days. There's no confirmed human dosing information since human trial results were never published.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Adipotide has a smaller but notable community presence on Reddit (r/Peptides, r/biohackingscience, r/PeptideDiscussion). Self-experimenters describe carefully tracking doses and side effects due to safety concerns, with one detailed self-tracking log describing a 28-day protocol dosed by body weight (r/biohackingscience). Reports of actual effectiveness are mixed to negative — several users report no noticeable weight loss or kidney changes after full cycles, while others report it worked well for them over multiple cycles (r/Peptides). Community members frequently cite the danger of kidney damage as the reason it's not widely used, mentioning at least one story (not independently verified) of a death from kidney failure linked to an excessive dose (r/Peptides).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community-reported doses include starting around 0.5 mg daily and increasing to about 1 mg daily by injection (r/Peptides), and a more precise self-tracked protocol using roughly 4.5 micrograms per pound of body weight daily for a 28-day period (r/biohackingscience). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

AICAR · No. 32

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
50 mg	$50	$250
100 mg	$60	$300

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

AICAR is a small lab-made molecule, not a peptide (chain of amino acids). It's actually a natural stepping-stone chemical the body already makes in tiny amounts while building purines (building blocks of DNA and RNA). Scientists isolated and use it in research as a way to trick cells into thinking they're low on energy.

WHAT DOES IT DO?

Imagine a fuel gauge inside every cell called AMPK — when it senses low fuel, it flips the body into "energy-saving and burning mode," telling cells to burn fat, take in more sugar for energy, and build more of the tiny power plants inside cells (mitochondria). AICAR fools this fuel-gauge system into switching on, even when the cell actually has plenty of fuel — which is why it's nicknamed an "exercise mimetic," because it flips on some of the same switches that real exercise does, without the exercise (USADA).

WHY ARE RESEARCHERS INTERESTED?

Researchers are interested in AICAR for its potential to improve endurance and mimic effects of exercise on metabolism (fat burning, glucose use). It's been more seriously studied in heart surgery contexts rather than weight loss.

WHAT DO HUMAN STUDIES SHOW?

AICAR (under the name acadesine) has actually been tested in real human trials — but for heart surgery patients, not weight loss. A large phase 3 trial called RED-CABG tested it in people having coronary artery bypass surgery, but the trial was stopped early because it wasn't showing enough benefit (this trial's specific results weren't confirmed in detail here). Importantly, no human trial has ever tested AICAR specifically for weight loss, fat loss, or body shape changes — any use for that purpose is not backed by real clinical research in people.

ANIMAL RESEARCH

In mouse studies, sedentary (non-exercising) mice given AICAR for several weeks showed improved running endurance, which is part of why it earned the "exercise in a bottle" reputation. The specific numbers from this mouse research weren't confirmed in detail in the source material, so the size of the effect shouldn't be overstated.

SIDE EFFECTS

There's no established safety profile for AICAR in healthy people or in people trying to lose weight. Anti-doping and regulatory sources warn that overactivating this fuel-sensing pathway could theoretically pose risks to nerve cells and to how cells divide, though this is described as a theoretical concern rather than something proven in humans (USADA).

EXPERIMENTAL RESEARCH DOSES

There's no confirmed information available on how long AICAR stays active in the human body or how well it's absorbed by different routes. In research settings, it's generally given by injection because taking it by mouth doesn't absorb well or consistently.

WHAT IS THE RESEARCH COMMUNITY SAYING?

AICAR has real but somewhat niche community discussion on Reddit (r/Biohackers), bodybuilding forums (professionalmuscle.com, elitefitness.com, isarms.com), and specialty sites. Users describe it as an endurance-focused compound rather than a weight-lifting tool, often comparing it to newer alternatives like "SLU-PP-332" and finding AICAR requires much higher doses to get comparable effects (r/Biohackers). Some forum members report using it for cardio and fat-burning during fasted training, often stacked with other recovery peptides like TB-500 (isarms.com). A dedicated review site describing Reddit sentiment notes discussions center on three claims: better endurance, an AMPK-driven 'exercise mimetic' effect, and a price tag that makes matching the mouse studies' doses in humans impractically expensive (molecularreference.com).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community-discussed doses vary widely. Injectable protocols mentioned online include roughly 10 mg split into morning and evening doses, sometimes alternated with other compounds like GW-501516 on different days (elitefitness.com). Other forum posts describe splitting a 100 mg vial into smaller doses of roughly 33 mg given every two days (isarms.com), while some users reference doses as high as 50 mg as being effective (r/Biohackers). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

AOD-9604 · No. 33

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
2 mg	$30	$150
5 mg	$50	$250
10 mg	$80	$400

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

AOD-9604 stands for "anti-obesity drug 9604." It's a lab-made peptide (a short chain of amino acid building blocks) built from a small fragment of human growth hormone, with an extra amino acid tacked on at one end. The idea behind creating it was to keep only the fat-burning part of growth hormone while leaving out the parts that make bones and organs grow, which is why it was developed as a potential weight-loss drug rather than a growth-promoting one (FDA briefing 2024).

WHAT DOES IT DO?

Growth hormone naturally has a fat-burning effect. Scientists tried to isolate just that piece of the hormone into AOD-9604, hoping it would break down fat without the other effects, like abnormal bone or organ growth, that come with using full growth hormone. In mouse studies, it did reduce fat and body weight similarly to growth hormone. However, scientists still don't fully understand exactly which "switch" in the body it's flipping to do this (Heffernan et al. 2001).

WHY ARE RESEARCHERS INTERESTED?

The original research interest was purely in fat loss/weight management. However, as described below, real human trials of AOD-9604 mostly failed to show meaningful benefit, so scientific interest in it as a weight-loss treatment has cooled considerably.

WHAT DO HUMAN STUDIES SHOW?

AOD-9604 has actually been tested in a decent number of human trials, and the results were disappointing. In one study, people given injections lost less than a pound and a half over three weeks — not a meaningful difference from placebo. Pill (oral) versions also didn't show real benefits. In the biggest trial, a 24-week study with 502 people testing an oral pill, AOD-9604 failed to beat placebo on its main goal, and the drug's development was stopped in 2007 as a result (FDA 2024 review). Note: widely-shared online claims of dramatic weight loss (around 13 pounds) from a supposed clinical trial couldn't be verified and actually contradict what the FDA's official review found — those claims should be treated skeptically.

ANIMAL RESEARCH

In obese mice and rats, AOD-9604 consistently reduced body weight and body fat, similar to the effects seen with full growth hormone (Heffernan et al. 2001). Animal studies also measured how quickly the compound breaks down in the bloodstream — very fast, with a half-life (the time for half the dose to clear the body) of only about 3-4 minutes in pigs and rats.

SIDE EFFECTS

Across six human trials, reported side effects included headache, diarrhea, gas, tiredness, low blood sugar, and dizziness. Some people getting it by injection reported chest tightness and unusual euphoria. A few participants developed cancers during the trials, though it's not clear if AOD-9604 caused them. In animal testing, there were also some concerning findings in the liver of monkeys and some ambiguous results on whether it could damage DNA (FDA 2024 review).

EXPERIMENTAL RESEARCH DOSES

In human trials, doses ranged from about 25-100 micrograms per kilogram of body weight given by IV injection, and separately as oral pills at doses of roughly 0.25, 0.5, and 1 milligram. No human studies tested it as a shot under the skin (subcutaneous) or through the skin (transdermal), despite that being how it's commonly used in unregulated settings today.

WHAT IS THE RESEARCH COMMUNITY SAYING?

AOD-9604 has extensive discussion on peptide-focused Reddit communities (r/Retatrutide, r/Peptidesource, r/ResearchCompounds, r/PeptideForum, r/Biohack_Blueprint). Opinions are notably mixed to skeptical: some users say it's "overhyped" and ineffective compared to newer compounds like Retatrutide or MOTS-c, with one detailed 12-week self-experiment concluding it didn't live up to the hype (r/Biohack_Blueprint). Others describe modest benefits specifically when combined with fasted cardio, reporting improved ketone levels, though they note it's much weaker than newer research peptides (r/Retatrutide). Some community members flatly call it "a gimmick promoted by chiropractors and fitness influencers" pushing affiliate links rather than a genuinely effective compound.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Commonly discussed doses in online communities range from 0.3 mg up to 1 mg per day, often used specifically before fasted cardio sessions, with some people cycling upward from 0.3 mg to 0.5 mg to 1 mg over a period of weeks (r/Retatrutide). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Cagrilintide · No. 34

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
5 mg	$50	$250
10 mg	$75	$375
20 mg	$90	$450

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Cagrilintide is a lab-made, long-acting version of a natural hormone your body already makes called amylin, which is released by the pancreas alongside insulin and plays a role in feeling full after eating. Scientists attached a fatty acid "tail" to the natural hormone so it sticks to a protein in the blood (albumin) and lasts much longer in the body, allowing for once-a-week dosing instead of needing constant natural amylin (IUPHAR/BPS dataset).

WHAT DOES IT DO?

Amylin is one of the body's natural "I'm full" signals. Cagrilintide copies and extends this signal by locking onto amylin receptors (docking stations) in the brain, especially in areas that control hunger and fullness. This tells your brain you're satisfied with less food, reducing appetite (Carvas et al. 2025).

WHY ARE RESEARCHERS INTERESTED?

Researchers are interested in cagrilintide specifically for fat loss/weight management, both used alone and combined with another weight-loss drug called semaglutide (a GLP-1 medicine) in a combination called CagriSema.

WHAT DO HUMAN STUDIES SHOW?

This is a well-studied compound with strong real-world clinical trial data. In a 26-week study of over 900 people, cagrilintide alone produced weight loss of about 6-11% of body weight (compared to about 3% with placebo), and the highest dose actually beat a comparison weight-loss drug (liraglutide) (Lau et al. 2021). In a much larger 68-week trial with over 3,400 people, combining cagrilintide with semaglutide (called CagriSema) produced roughly 20% body weight loss compared to only 3% with placebo — a massive difference (Garvey et al. 2025).

ANIMAL RESEARCH

In mouse studies, cagrilintide reduced fat mass while helping preserve lean muscle mass, and researchers traced its weight-lowering effect specifically to certain amylin receptor "docking stations" in the brain (Carvas et al. 2025).

SIDE EFFECTS

The most common issue by far is stomach-related: nausea, and other gastrointestinal problems, affecting a large share of people who take it (occurring in 41-63% of people on cagrilintide alone, and nearly 80% of people on the combination CagriSema, though usually described as mild-to-moderate and temporary). About 4% of people in one trial stopped taking it because of side effects (Lau et al. 2021; Garvey et al. 2025). Because it's still an experimental (not yet approved) drug, official safety warnings and drug interaction information haven't been finalized.

EXPERIMENTAL RESEARCH DOSES

In human trials, cagrilintide was given as a once-weekly injection under the skin, at doses ranging from 0.3 mg up to 4.5 mg in the dose-finding study, and 2.4 mg in the combination CagriSema trials. It's designed to stay active in the body for roughly a week (with an estimated half-life in the range of about 159-195 hours), which is why it only needs to be injected weekly.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Cagrilintide has an active dedicated community on Reddit (r/cagrilintide, r/Mounjaro) with many users tracking weight loss journeys, often stacking it with other weight-loss drugs like Retatrutide, Zepbound, or Semaglutide. Users commonly report significant appetite suppression, sometimes describing feeling sick if they overeat while on it, which they see as helpful reinforcement (r/cagrilintide). Reported side effects in the community mirror the clinical trials — mainly nausea and a skin sensitivity/tingling sensation called allodynia in some users, which tends to fade over the first few weeks (r/cagrilintide). Overall sentiment is largely positive, with many describing meaningful, sustained weight loss over several months.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community-discussed doses commonly range from a low starting dose around 0.25 mg weekly up to 1 mg weekly for cagrilintide used alone or alongside other compounds, with some higher-weight-loss protocols mentioning up to 4 mg combined with other drugs (r/cagrilintide). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Liraglutide · No. 35

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
5 mg	$65	$325
30 mg	$90	$450

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Liraglutide is a lab-made peptide (chain of amino acid building blocks) that closely mimics a natural gut hormone called GLP-1, which your intestines release after eating to help control blood sugar and appetite. Scientists attached a fatty acid tag to the natural hormone shape so it lasts much longer in the bloodstream. It's sold under two brand names: Victoza (for diabetes) and Saxenda (for weight loss) (StatPearls).

WHAT DOES IT DO?

After you eat, your gut naturally releases GLP-1, which tells your pancreas to release insulin (which lowers blood sugar), tells your liver to stop dumping extra sugar into your blood, slows down how fast your stomach empties (so you feel full longer), and signals your brain that you're full. Liraglutide copies and extends this natural signal, which is why it both helps control blood sugar in diabetes and reduces appetite for weight loss (StatPearls).

WHY ARE RESEARCHERS INTERESTED?

Liraglutide is studied and used for both fat loss/weight management and diabetes/blood sugar control, and has data showing benefits for cardiovascular (heart) risk reduction as well.

WHAT DO HUMAN STUDIES SHOW?

This is one of the most well-established compounds in this whole list, with over a decade of real human data. In a major 56-week trial with over 3,700 people, those taking liraglutide lost about 8.4 kg (roughly 18.5 pounds) on average, compared to about 2.8 kg (about 6 pounds) with placebo. About 63% of people lost at least 5% of their body weight, versus only 27% with placebo (Pi-Sunyer et al. 2015). It's also approved and used for managing type 2 diabetes and for lowering heart disease risk.

ANIMAL RESEARCH

The source data provided doesn't detail specific animal studies for liraglutide, since it already has extensive real human trial data supporting its approval and use — animal testing would have been part of its original development process but isn't the focus of the evidence base at this point.

SIDE EFFECTS

The most common issues are stomach-related: nausea, diarrhea, vomiting, reduced appetite, indigestion, and constipation. Less common but more serious issues include inflammation of the pancreas (in less than 0.4% of users), gallstones (about 2.2%), a slightly faster heart rate, kidney problems, severe allergic reactions, and reports of suicidal thoughts in a small percentage of users. Importantly, liraglutide carries an official "boxed warning" (the strongest safety warning the FDA gives) because it caused thyroid tumors in rodent studies, so it's not recommended for anyone with a personal or family history of certain thyroid cancers (StatPearls).

EXPERIMENTAL RESEARCH DOSES

Liraglutide is given as a once-daily injection under the skin. It reaches peak levels in the blood about 8-12 hours after injection, and about 55% of an injected dose actually makes it into the bloodstream in an active form. It stays active in the body for about 13 hours (its half-life), and it's broken down by the body's normal protein-processing systems rather than needing to pass through a specific organ like the kidneys (StatPearls).

WHAT IS THE RESEARCH COMMUNITY SAYING?

Liraglutide (as Victoza and Saxenda) has extensive, long-running community discussion, notably on r/diabetes, r/diabetes_t2, and r/loseit, since it's been an approved medication for over a decade. Many describe significant appetite reduction and meaningful weight loss, but nausea — especially in the first two weeks — is almost universally mentioned as the toughest part of starting the medication (r/diabetes). One user reported a rare but serious case of acute pancreatitis (inflammation of the pancreas) after only three weeks of use, describing it as a scary experience (r/diabetes). Overall community sentiment is a mix of strong appetite-suppression benefits weighed against gastrointestinal discomfort, especially during the initial dose-adjustment period.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

As an FDA-approved medication, dosing typically follows official prescribing guidance rather than experimental community protocols — Victoza (for diabetes) is generally used at up to 1.8 mg daily, while Saxenda (for weight loss) goes up to 3.0 mg daily, gradually increased over several weeks to reduce nausea. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Mazdutide · No. 36

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
5 mg	$55	$275
10 mg	$75	$375

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Mazdutide is a lab-made peptide (chain of amino acid building blocks) that copies and extends a natural gut hormone called oxyntomodulin, which your intestines release after eating. It was developed by the company Innovent Biologics together with Eli Lilly, and is sold in China under the brand name Xinermei (IUPHAR/BPS Guide to Pharmacology; Drugs 2025).

WHAT DOES IT DO?

Mazdutide is a "dual" hormone mimic — it activates two different hormone docking stations (receptors) at once: one for GLP-1 (which controls blood sugar, slows digestion, and reduces appetite — similar to liraglutide above) and one for glucagon (a hormone that can help the body burn more energy and mobilize fat stored in the liver). By hitting both targets, it's designed to combine appetite suppression with a metabolism boost.

WHY ARE RESEARCHERS INTERESTED?

Researchers are interested in mazdutide for fat loss/weight management and blood sugar control (diabetes), and it's also being studied for fatty liver disease, sleep apnea, and alcohol use disorder.

WHAT DO HUMAN STUDIES SHOW?

In a large Chinese clinical trial with 610 people over 48 weeks, mazdutide led to significant weight loss: at week 32, people lost about 10-12.5% of body weight (versus almost no change with placebo), and by week 48, some groups lost around 11-14% of body weight, with very few people quitting the trial due to side effects (NEJM 2025). It's also being studied for fatty liver disease, sleep apnea, and alcohol use disorder, though those trials are still ongoing.

ANIMAL RESEARCH

The provided source data doesn't detail specific animal studies for mazdutide — its evidence base focuses on the strong human clinical trial results described above.

SIDE EFFECTS

The most frequently reported problems are stomach-related (nausea and similar digestive issues), generally described as mild to moderate, with relatively few people stopping treatment because of them. Because mazdutide activates the glucagon hormone pathway in addition to GLP-1, there's a theoretical concern about effects on heart rate and blood sugar regulation that doctors would want to monitor, though detailed information on this wasn't confirmed in the available sources.

EXPERIMENTAL RESEARCH DOSES

Mazdutide is given as a once-weekly injection under the skin. Like cagrilintide, it has a fatty acid attachment that helps it stick to a protein in blood and last longer, enabling once-weekly dosing, though a specific number for how long it lasts in the body wasn't confirmed in the available sources.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Mazdutide has a dedicated Reddit community (r/Mazdutide) along with cross-posts in weight-loss-focused subreddits like r/Retatrutide and r/PeptideForum. Users often describe stacking it with other weight-loss drugs like tirzepatide, reporting strong combined weight loss results and describing side effects as "easier to handle" compared to more aggressive compounds like retatrutide (r/Mazdutide). Some users report dramatic early results, such as losing weight quickly after their very first dose, and long-term users report continued weight loss without hitting a plateau over many months (r/Mazdutide; r/Retatrutide). Because it's approved in China but not the U.S. or Europe, much of the community discussion revolves around sourcing it internationally.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community discussions reference doses matching the official Chinese approval range, generally 4-9 mg given weekly, with the 9 mg dose associated with the strongest reported results (up to about 20% body weight loss in trial data cited by users) (r/Mazdutide). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Retatrutide · No. 37

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
5 mg	$40	$200
10 mg	$65	$325
15 mg	$70	$350
20 mg	$100	$500
30 mg	$125	$625
40 mg	$150	$750
50 mg	$175	$875
60 mg	$200	$1,000

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Retatrutide (its lab code is LY3437943, and people online nickname it "Triple G") is a man-made peptide — a small chain of amino acids (the building blocks of protein) — that was designed in a lab, not found in nature. It's built from 39 amino acids linked together, with a fat molecule attached to help it stay in the body longer (IUPHAR/BPS peptide dataset). It was created by drug company Eli Lilly to treat obesity and diabetes by copying and combining several of the body's own hunger and metabolism signals into one drug.

WHAT DOES IT DO?

Think of your body as having three different "volume knobs" that control hunger and how fast you burn energy: GIP, GLP-1, and glucagon. Retatrutide turns up all three knobs at once — that's why researchers call it a "triple agonist," which just means it switches on three different signals instead of one. Turning up GIP and GLP-1 makes you feel full faster and slows down how quickly food leaves your stomach. Turning up the glucagon signal is meant to make your body burn more energy and fat, especially in the liver (Jastreboff et al., NEJM 2023; Biomolecules review 2025).

WHY ARE RESEARCHERS INTERESTED?

Researchers are mainly excited about retatrutide for fat loss — it has produced the largest weight loss numbers seen so far for any weight-loss drug in testing. There's also interest in its effects on diabetes (blood sugar control) and liver health (specifically fatty liver disease), since separate studies have looked at both of these (Lancet 2023; Nat Med 2024).

WHAT DO HUMAN STUDIES SHOW?

In a real study of 338 people over 48 weeks, people taking weekly retatrutide lost a huge amount of weight — from about 9% of body weight at the lowest dose up to about 24% at the highest dose, compared to only about 2% for people taking a fake shot (placebo). At the highest doses, somewhere between 60-83% of people lost 15% or more of their starting body weight, versus just 2% on placebo (Jastreboff, NEJM 2023). More studies have also tested it in people with type 2 diabetes and fatty liver disease, with bigger phase 3 trials still ongoing. So far, there's no data yet on long-term heart health outcomes.

ANIMAL RESEARCH

The existing research profile doesn't include separate animal-study details for retatrutide — the evidence gathered focuses on human trials since the drug moved fairly quickly into human testing.

SIDE EFFECTS

The most common complaints were stomach-related — nausea, vomiting, feeling too full — and these got worse the higher the dose, but starting with a smaller dose and increasing slowly helped reduce this. Some people's resting heart rate went up a bit, peaking around week 24 of treatment before coming back down some (Jastreboff, NEJM 2023). Because it's not an approved medicine yet, doctors don't have official warning labels, but drugs like this one have raised some theoretical concerns about the pancreas, gallbladder, and (in rodent studies only) certain thyroid tumors — these worries haven't been proven or disproven specifically for retatrutide yet.

EXPERIMENTAL RESEARCH DOSES

In the main study, people took retatrutide as a shot under the skin (subcutaneous injection) once a week. Doses tested ranged from 0.5 mg up to 12 mg per week, usually starting low and slowly increasing over weeks to help the body adjust and reduce stomach side effects. The study ran for 48 weeks total (Jastreboff, NEJM 2023). This information is purely educational, describing what was studied — not a suggestion for what anyone should take.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Retatrutide (often called "Reta") is one of the most talked-about peptides online, with active discussion on subreddits like r/Retatrutide, r/RetatrutideTrial, and r/Biohackers. People report large weight losses — commonly 40 to 95+ pounds over 6-8 months — along with side benefits like better cholesterol, blood pressure, and blood sugar (Reddit r/Retatrutide). Commonly mentioned side effects include nausea, stomach upset, hair shedding after weight loss, feeling cold or (for some) unusually warm, and a strange skin-sensitivity feeling called "allodynia" that some users find unpleasant (Reddit thread on side effects). A big and controversial topic is sourcing — since it isn't approved for sale to the public, people buy it from "research chemical" sellers, and there's ongoing debate about whether these grey-market vials are pure, safe, or accurately dosed. Some users also report needing months to reach a stable dose, and quitting can bring appetite and cravings back within weeks.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Online, the lowest doses people mention are tiny "microdoses" around 0.1-0.25 mg per week, meant to test tolerance and reduce side effects. The most commonly discussed starting and maintenance doses cluster between 1 mg and 4 mg weekly, with people slowly increasing over weeks or months (BowTied Biohacking dosing guide). The highest doses discussed, matching the clinical trial's top dose, go up to 12 mg per week, which some online sources describe as the studied ceiling. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Semaglutide · No. 38

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
2 mg	$40	$200
5 mg	$40	$200
10 mg	$50	$250
15 mg	$60	$300
20 mg	$65	$325
30 mg	$65	$325

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Semaglutide is a lab-made peptide sold under brand names like Ozempic, Rybelsus, and Wegovy. It's a copy of a natural hormone your gut makes called GLP-1, but it's been chemically tweaked so it lasts much longer in the body — natural GLP-1 breaks down in minutes, but semaglutide is designed to work for about a week per dose (IUPHAR/BPS peptide dataset; Min et al., 2025 PK review).

WHAT DOES IT DO?

Your gut naturally releases a hormone called GLP-1 after you eat, which tells your brain "I'm full" and slows down digestion. Semaglutide copies this hormone but sticks around much longer, so it keeps sending that "full" signal to your brain for days instead of minutes. It works on brain areas that control hunger and cravings, and it also slows down how fast your stomach empties, which is part of why people eat less and lose weight (Papakonstantinou et al., 2024 review).

WHY ARE RESEARCHERS INTERESTED?

Semaglutide is studied heavily for fat loss, and importantly, for heart health — a huge study called SELECT found it reduced major heart problems (like heart attacks and strokes) in people who were overweight or obese, even those without diabetes (NEJM 2023).

WHAT DO HUMAN STUDIES SHOW?

In a landmark study of nearly 2,000 people over 68 weeks, people taking semaglutide lost about 15% of their body weight on average, compared to only about 2% for people on a fake shot — and more than half of people lost 15% or more of their weight (NEJM 2021). In an even bigger heart-focused study of over 17,000 people followed for over 3 years, semaglutide lowered the chance of serious heart problems by 20% compared to placebo (NEJM 2023).

ANIMAL RESEARCH

The existing research profile for semaglutide focuses on its extensive human data rather than animal studies — it's one of the most well-studied peptides in people, so most of the meaningful evidence comes directly from human trials rather than animal experiments.

SIDE EFFECTS

The most common complaints are stomach-related — nausea, vomiting, diarrhea — and these are the main reason people stop taking it (about 4-5 times more people quit because of stomach issues on semaglutide than on placebo) (NEJM 2021). There are also known but rarer risks shared across this whole class of drugs: inflammation of the pancreas, gallbladder problems, and a warning about thyroid tumors that showed up in rodent studies (not clearly shown in humans, but taken seriously as a precaution) — people with a personal or family history of a specific type of thyroid cancer are told not to use these drugs (liraglutide safety data).

EXPERIMENTAL RESEARCH DOSES

Semaglutide is normally studied as a once-weekly shot under the skin, with doses building up gradually to a target of 2.4 mg per week for weight management. There's also a daily pill version, though the body absorbs much less of the drug that way (less than 1% versus about 89% for the shot) (Min et al., 2025). This is purely educational information about what's been studied, not a dosing recommendation.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Semaglutide has one of the largest peptide/medication communities online, with hundreds of thousands of members across subreddits like r/Semaglutide, r/SemaglutideCompound, and forums like CompoundTalk. Because it's FDA-approved, much of the discussion mixes prescribed users (getting brand-name Ozempic/Wegovy) with people using "compounded" (pharmacy-mixed) or grey-market versions (CompoundTalk). Common themes include titrating doses slowly to avoid nausea, tips for managing side effects with bland food and hydration, and long "maintenance" discussions about staying at a stable low dose once weight goals are reached. Common side effects mentioned match the official research: nausea, fatigue, and constipation in the first weeks, usually easing over time (Reddit r/WeightLossPhilippines). A recurring controversial topic is whether people should exceed the officially approved maximum dose of 2.4 mg — some compounding pharmacies offer higher concentrations, and community members sometimes push past 2.5 mg looking for more effect, which isn't backed by the approved research.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

The lowest doses discussed are the standard starting dose of 0.25 mg per week, meant to help the body adjust. The most commonly discussed and "therapeutic" doses cluster between 1 mg and 2.4 mg weekly, which matches the FDA-approved range for Wegovy. The highest doses some community members mention are around 2.5-3 mg weekly (slightly above the approved maximum), obtained mainly through compounding pharmacies. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

SLU-PP-332 · No. 39

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
5 mg	$65	$325

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

SLU-PP-332 isn't actually a peptide (a chain of amino acids) at all — it's a small man-made chemical, but it gets grouped with peptides online because people take it the same way. It was created by scientists (at Saint Louis University, hence the "SLU" in the name) to switch on a set of proteins in cells called estrogen-related receptors, or ERRs. Despite the name, it has nothing to do with estrogen or hormones in a reproductive sense (Billon et al., ACS Chem Biol 2023).

WHAT DOES IT DO?

Imagine your muscle cells have tiny power plants called mitochondria that turn food into energy. SLU-PP-332 flips a genetic switch that tells your body to build more of these power plants and run them harder — kind of like tricking your muscles into thinking you just did a hard workout, even if you didn't. In mouse studies, this made the mice have more endurance, burn more fat, and build more of the muscle fibers used for long-distance activity (Billon 2023).

WHY ARE RESEARCHERS INTERESTED?

The main areas of interest are fat loss and general metabolic health (how well the body handles sugar and burns energy) — mouse studies found it reduced fat and improved how well the body responds to insulin (J Pharmacol Exp Ther 2024).

WHAT DO HUMAN STUDIES SHOW?

There are none. According to the existing research, no human studies of any kind have been done on SLU-PP-332 — everything known so far comes from lab and animal experiments. Any claims about how it affects humans are guesses based on the mouse data, not proof.

ANIMAL RESEARCH

In mice that were overweight or obese, SLU-PP-332 helped them burn more energy, break down fat for fuel, lose fat mass, and become better at managing blood sugar (J Pharmacol Exp Ther 2024). The scientists who first made the compound described it as a good "tool" for lab research, not something ready to be a medicine — and they mentioned they have a financial stake in a company working on similar drugs, which is worth knowing when weighing how excited to be about the results (Billon 2023).

SIDE EFFECTS

Since no human studies exist, there's no real human safety data at all. No side-effect list has been published from formal testing. Scientists have flagged a theoretical worry: because the protein this drug affects (ERRα) is found throughout the body and has some connection to cancer biology, using this drug long-term for a healthy person carries unknown risks that simply haven't been studied yet.

EXPERIMENTAL RESEARCH DOSES

The existing research doesn't report a specific human dose, since no human trials exist. Animal studies gave it through injections into the body cavity (not the same as under the skin), and researchers have not published exact numbers for how much reaches the bloodstream or how long it stays active in the body.

WHAT IS THE RESEARCH COMMUNITY SAYING?

SLU-PP-332 (nicknamed "SLU" or "Sluppy") has a large and very divided community on Reddit (r/SLUPP332, r/Biohackers, r/amino_asylum) and bodybuilding forums. Many users report noticeably easier cardio, better endurance, more energy, and mild fat loss, especially when combined with exercise (Reddit r/Biohack_Blueprint). However, just as many users say they felt absolutely nothing even at very high doses, and several forum threads openly call it "overhyped" (Reddit r/SteroidsUK). Commonly reported side effects include afternoon fatigue or "crashes," feeling too warm, increased heart rate, sleep disturbances, and in a few cases, dizziness or lightheadedness (Reddit r/amino_asylum). A notable safety concern was raised by a woman with hormone-sensitive health history, who reported unusual bleeding while using it and urged caution since almost all safety data comes from male rodents (Reddit r/Peptides_for_Women). A key controversy is quality — people report wildly different results depending on the supplier, suggesting some products sold online may not contain what they claim.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

The lowest doses discussed online are around 100-250 micrograms (mcg) per day. The most commonly discussed doses cluster between 250 mcg and 1 mg per day, often split into two doses (morning and before exercise). The highest doses some users report trying reach 20-36 mg per day (much higher than the low end), with very mixed reports on whether these higher amounts actually work better or just increase side effects like fatigue. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Survodutide · No. 40

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
10 mg	$125	$625

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Survodutide (lab code BI 456906) is a lab-made peptide being developed by the drug company Boehringer Ingelheim. It's built with a fat molecule attached to help it stay active in the body for about a week, and scientists removed a specific weak point in its structure that would otherwise let the body break it down too fast (Guide to Pharmacology — survodutide).

WHAT DOES IT DO?

Survodutide flips two switches at once instead of one. It copies GLP-1 (the same "I'm full" hormone semaglutide copies) to reduce appetite and slow digestion, but it also copies a second hormone called glucagon, which is meant to help the body burn more fat, especially stored fat in the liver (Sanyal et al., NEJM 2024).

WHY ARE RESEARCHERS INTERESTED?

The main interest areas are fat loss and specifically liver health — survodutide has strong results in a liver disease called MASH (a serious form of fatty liver disease), reducing liver fat and improving liver damage markers in studies (Sanyal, NEJM 2024).

WHAT DO HUMAN STUDIES SHOW?

In a 46-week study of 386 people with obesity, survodutide led to weight loss ranging from about 6% at the lowest dose to about 15% at the highest dose, compared to under 3% for placebo — but only about 60% of people finished the whole study, meaning a lot of people dropped out (le Roux et al., Lancet Diabetes Endocrinol 2024). In a separate 48-week study of 293 people with liver disease (MASH), close to half or more of people on survodutide saw their liver disease improve without getting worse, compared to only 14% on placebo — a strong result (Sanyal, NEJM 2024).

ANIMAL RESEARCH

The existing research profile does not include separate animal-study details for survodutide — like several other newer weight-loss peptides, most of the published, gathered evidence for this compound comes directly from its human trials.

SIDE EFFECTS

This drug had a notably high rate of stomach-related side effects — in the obesity study, 91% of people on survodutide had some kind of side effect (mostly stomach-related) compared to 75% on placebo, and in the liver study, more than 60% of people had nausea (le Roux 2024; Sanyal 2024). Because it also turns on the glucagon signal, doctors need to keep an eye on heart rate and blood sugar levels in people using it. Since it's not an approved drug yet, there aren't official safety warnings the way there are for approved medicines.

EXPERIMENTAL RESEARCH DOSES

In studies, survodutide was given as a once-a-week shot under the skin, with a slow escalation period of about 20 weeks to help people's bodies adjust before reaching the target dose. Doses in studies ranged from 0.6 mg up to 4.8 mg per week (le Roux 2024). This is purely educational, reflecting only what was studied in trials — not advice on what anyone should take.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Survodutide ("Survo") has a smaller but active community, mainly on r/survodutide, r/Peptides, and r/Biohackers. Compared to retatrutide or tirzepatide, community discussion is described by one source as relatively light — mostly focused on trial data rather than large numbers of personal experiences (Peptide Schedule community notes). Users who do share experiences report solid weight loss (many mention 60-110 pounds over many months) and generally note less heart-rate increase compared to retatrutide or tirzepatide, which some prefer it for (Reddit r/survodutide). Commonly mentioned side effects include nausea, vomiting, diarrhea, and burping, especially during the dose-increase phase; a few users report combining it with other peptides like retatrutide or tirzepatide, though some caution against stacking it with retatrutide because both affect glucagon and could increase heart rate together (Reddit r/survodutide). Because it's harder to find than tirzepatide or retatrutide on the grey market, some threads discuss sourcing difficulty as a bigger topic than side effects.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

The lowest doses discussed match the clinical starting dose of about 0.5-0.6 mg per week. The most commonly discussed maintenance doses cluster between 2.4 mg and 5 mg weekly after a slow multi-month buildup. The highest doses some users mention reach around 6 mg weekly, close to the top end being tested in ongoing larger trials. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Tirzepatide · No. 41

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
5 mg	$35	$175
10 mg	$40	$200
15 mg	$35	$175
20 mg	$55	$275
30 mg	$65	$325
40 mg	$75	$375
50 mg	$90	$450
60 mg	$90	$450
100 mg	$125	$625
120 mg	$150	$750

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Tirzepatide (lab code LY3298176) is a lab-made peptide sold under the brand names Mounjaro (for diabetes) and Zepbound (for weight loss). It's built from 39 amino acids based on the structure of a natural gut hormone called GIP, with a fat molecule attached to make it last about 5 days in the body (IUPHAR/BPS peptide dataset; Min et al., 2025).

WHAT DOES IT DO?

Tirzepatide is nicknamed a "twincretin" because it copies two different gut hormones at once — GIP and GLP-1. Both of these hormones tell your body to release insulin when blood sugar rises, calm down the hormone that raises blood sugar (glucagon), slow digestion, and reduce hunger. By hitting both signals together, it tends to work even more strongly than drugs that only copy one hormone (StatPearls).

WHY ARE RESEARCHERS INTERESTED?

Tirzepatide is studied heavily for fat loss and diabetes (managing blood sugar) — it's one of the strongest-performing drugs for both. In a major weight-loss study, people lost up to about 21% of their body weight at the highest dose (Jastreboff et al., NEJM 2022).

WHAT DO HUMAN STUDIES SHOW?

In a study of 2,539 people over 72 weeks, people taking weekly tirzepatide lost between 15% and 21% of their body weight depending on the dose, compared to about 3% for placebo, and roughly half of people at the higher doses lost 20% or more of their body weight (Jastreboff et al., NEJM 2022). In a separate diabetes study, tirzepatide lowered a key blood-sugar marker (HbA1c) by more than 2 percentage points (StatPearls).

ANIMAL RESEARCH

The existing research profile does not include separate animal-study details for tirzepatide — because it's been so thoroughly tested and is already FDA-approved, the gathered evidence is dominated by large human clinical trials rather than animal research.

SIDE EFFECTS

The most common issues are nausea and diarrhea (affecting up to about 10% of users), along with vomiting and constipation. Less common but more serious issues include fast heart rate, kidney problems from dehydration, pancreas inflammation, gallbladder issues, and temporary worsening of eye problems in people who already have diabetic eye disease. If combined with insulin or certain diabetes pills, it can also cause low blood sugar. It carries an official warning about thyroid tumors seen in rodent studies, and people with certain thyroid cancer histories are told not to use it (StatPearls).

EXPERIMENTAL RESEARCH DOSES

Tirzepatide is studied and prescribed as a once-a-week shot under the skin, with doses ranging from 2.5 mg (a starting dose to help the body adjust) up to 15 mg for long-term use. The 72-week weight-loss study tested doses of 5 mg, 10 mg, and 15 mg (Jastreboff, NEJM 2022). This describes only what's been studied — not a suggested dose for anyone to follow.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Tirzepatide ("Tirz") has an enormous online following, with active subreddits like r/tirzepatidecompound and r/compoundedtirzepatide where people track weight loss, side effects, and dosing math in extreme detail. Reported weight losses in community posts commonly range from 30 to over 100 pounds across many months to over a year, alongside frequent mentions of improved sleep apnea and blood pressure (Reddit r/tirzepatidecompound). A very common discussion topic is "microdosing" — using doses below the officially approved starting amount, with some users reporting good appetite control even at low doses like 0.5-1 mg (Reddit r/GLP1microdosing). Common side effects mentioned align with official data — nausea, especially right after dose increases — along with a widely discussed practice of splitting the weekly dose into smaller, more frequent shots to reduce side effects and stretch out supply. A notable and important community-reported concern: after stopping tirzepatide, a large share of people (reportedly over 80% in one cited study) regain weight, a pattern also seen with similar drugs (Reddit r/Biohackers).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

The lowest doses discussed are "microdoses" as small as 0.2-1.25 mg weekly, well below the approved 2.5 mg starting dose. The most commonly discussed doses cluster between 2.5 mg and 10 mg weekly, following the same buildup pattern used in clinical trials. The highest doses some long-term community members mention reach 12.5-15 mg weekly, matching the top of the FDA-approved range, with a few threads discussing unofficial reports of even higher research-only doses. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

SECTION 04

Healing / Tissue Repair

12
COMPOUNDS

Peptides studied for helping the body grow new blood vessels, repair tissue, and heal wounds faster.

AHK-Cu · No. 42

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
100 mg	$50	$250

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

AHK-Cu is a tiny lab-made peptide made of just three amino acids — alanine, histidine, and lysine — attached to a copper atom. Because it's so similar to a related peptide called GHK-Cu, some people online call it its "cousin." It doesn't occur naturally in this exact combination; it was created as a copper-carrying tool for cosmetic and hair research.

WHAT DOES IT DO?

Think of copper as a helpful nutrient your cells need in small amounts, but too much loose copper floating around can actually be harmful. AHK-Cu works like a tiny, safe delivery truck — it grabs onto copper and carries it gently into cells without letting it cause damage. Once delivered, this copper seems to help hair follicle cells survive longer and multiply, rather than dying off, which is the theory behind why it might help hair grow (Pyo et al., Arch Pharm Res 2007).

WHY ARE RESEARCHERS INTERESTED?

The main area of interest is hair growth — lab studies (done in dishes and on isolated hair follicle tissue, not in living people) found that AHK-Cu helped hair follicles grow longer and helped hair-related cells survive better.

WHAT DO HUMAN STUDIES SHOW?

None exist. According to the existing research profile, no human clinical trials of AHK-Cu have ever been done. Everything claimed about it helping human hair growth is either a guess based on the related peptide GHK-Cu, or comes from anecdotes from people selling or using the product — not real science on people.

ANIMAL RESEARCH

There isn't traditional animal research either — the actual lab study used isolated human hair follicles taken from real people but tested outside the body (called "ex vivo," meaning outside a living organism) along with cells grown in dishes. At very small concentrations, AHK-Cu made hair follicles grow longer and increased the number of cells in the hair-growing part of the follicle. However, one part of the expected effect — protecting cells from dying — wasn't found to be statistically meaningful, meaning it might have happened by chance (PMID 17703734).

SIDE EFFECTS

There is no formal human safety data for AHK-Cu at all. Because it involves copper, there's a general theoretical concern about irritation on skin or too much copper building up, but nothing has actually been documented or studied to confirm this happens.

EXPERIMENTAL RESEARCH DOSES

The lab study that exists used extremely small concentrations directly applied to cells and tissue in a dish — around one-trillionth to one-billionth of a gram per liter of solution. This is a lab-only measurement and doesn't translate into any kind of real-world dosing amount for a person; there is no established human dose anywhere in the research.

WHAT IS THE RESEARCH COMMUNITY SAYING?

AHK-Cu shows up mostly in hair-loss communities like r/tressless, r/HairlossResearch, and r/FemaleHairLoss, almost always discussed alongside its better-known relative GHK-Cu. Most people use it as a topical (skin-applied) serum rather than an injection — several community members explicitly warn against injecting AHK-Cu, saying the raw powder is "cosmetic grade" and not meant to go under the skin (Facebook GHK-Cu group discussion). Users who apply it topically to the scalp, often after a technique called microneedling (tiny needle pricks to help absorption), report gradually thicker-looking hair and new fine hairs (called "vellus hairs") appearing over weeks to months (Reddit r/Hairtransplant). A repeated theme is skepticism — several posters note they haven't seen convincing before-and-after photos and suspect a lot of the hype comes from sellers rather than real independent users.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

For topical use, the lowest concentration people discuss is around 1% AHK-Cu mixed into a serum base. The most commonly discussed concentration for topical serums is also around 1%, applied once daily to the scalp. Some older hair-loss forum threads mention higher concentrations of 2.5% to 5% as within the range historically studied for related copper peptides, applied once or twice a day. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

BPC-157 · No. 43

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
2 mg	$25	$125
5 mg	$30	$150
10 mg	$55	$275
20 mg	$68	$340

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

BPC-157 (also called BPC-15) is a lab-made peptide made of 15 amino acids linked together, designed to copy part of a protein found naturally in human stomach (gastric) juice. So while it's not exactly a natural substance itself, it's based on something your body actually makes (Vukojević et al., Front Pharmacol 2022).

WHAT DOES IT DO?

Researchers describe BPC-157 as acting like a general helper for healing throughout the body — it doesn't lock onto one single "switch" the way most drugs do. Instead, it seems to boost the process of forming new blood vessels (which brings nutrients to injured areas) and helps protect and repair different types of tissue, whether that's skin, muscle, tendons, bone, or the stomach lining (Sikirić et al., Front Pharmacol 2021).

WHY ARE RESEARCHERS INTERESTED?

BPC-157 draws interest mainly for recovery and general tissue healing — animal studies report faster healing of skin wounds, tendons, ligaments, muscle, bone, the cornea (eye), and the gut lining (Front Pharmacol 2021).

WHAT DO HUMAN STUDIES SHOW?

Human evidence is minimal. A few very early-stage trials tested BPC-157 in people with ulcerative colitis and multiple sclerosis, mainly to check that it was safe, but researchers haven't run a proper large trial to prove it actually speeds up healing in humans (Front Pharmacol 2021; Pharmaceuticals 2025 review). An important limitation: almost all of the research on BPC-157 comes from one research group based in Zagreb, Croatia, meaning other scientists haven't independently repeated and confirmed these findings.

ANIMAL RESEARCH

This is where almost all the solid evidence lives. In rats and mice, BPC-157 sped up the healing of skin wounds, tendons, ligaments, muscles, bones, the cornea of the eye, and the stomach/intestine lining (Front Pharmacol 2021). Animal toxicity testing found no dose high enough to cause death, which suggests a wide safety margin in animals — though that doesn't automatically mean it's equally safe in people.

SIDE EFFECTS

In animal studies, no lethal dose could even be found, suggesting it's quite safe for animals. But because there's so little human testing, the FDA has specifically noted that it doesn't have enough information to know whether BPC-157 could cause immune system reactions or other harm in humans (FDA). Long-term risks — like whether boosting blood vessel growth could feed something like a tumor — simply haven't been studied.

EXPERIMENTAL RESEARCH DOSES

In rat studies, BPC-157 given through an IV had a very short half-life (how long it takes for half the drug to leave the body) of about 15 minutes; through a muscle injection, it lasted a bit longer, roughly 8-30 minutes. In dogs, absorption when injected into muscle was around 45-51%. Researchers have tested giving it through IV, muscle injection, injection into the belly area, by mouth, and even directly on the skin (Front Pharmacol 2022). This is purely educational information about animal research, not a suggested human dose.

WHAT IS THE RESEARCH COMMUNITY SAYING?

BPC-157 is one of the most widely discussed recovery peptides across bodybuilding forums, CrossFit communities, and general peptide forums (r/Peptides, professionalmuscle.com, r/crossfit). Users commonly report faster recovery from workouts, joint pain relief, and quicker healing from injuries, often describing it as "astonishing" for recovery speed (Reddit r/crossfit). A near-universal theme is stacking it with another peptide called TB-500, with many users saying the combination works better than either alone, though there's also debate about whether mixing them in the same syringe reduces effectiveness. Injection directly near an injury site is the most commonly recommended method, while oral (by-mouth) use is generally described as mainly helping gut health rather than systemic healing. A key point that's important context: BPC-157 is officially banned for competitive athletes under WADA's rules (the World Anti-Doping Agency), and the FDA has flagged safety concerns about immune reactions from compounded versions.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

The lowest doses commonly discussed are around 200-250 micrograms (mcg) per day. The most commonly discussed doses cluster around 250-500 mcg per day, often split into two smaller doses, injected either near the injury or generally under the skin. The highest doses some forum users mention reach around 1,000 mcg (1 mg) per day, sometimes used for a limited number of weeks rather than continuously. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Cartalax · No. 44

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
20 mg	$60	$300

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Cartalax is a very short lab-made peptide, made of just three amino acids (alanine, glutamate, and aspartate, shortened to "AED"). It comes from a Russian research program started by scientist Vladimir Khavinson, who developed a whole family of short peptides believed to help regulate genes as people age (Int J Mol Sci 2023).

WHAT DOES IT DO?

Unlike most drugs that lock onto a specific "receptor" switch on a cell's surface, Cartalax is thought to work more subtly — by nudging which genes inside a cell get turned on or off. In lab studies, it has been shown to activate certain genes tied to inflammation control and turn on other genes involved in building cartilage — the smooth, cushiony tissue found in joints — including genes that make key structural proteins in cartilage (PMID 37782646).

WHY ARE RESEARCHERS INTERESTED?

The main area of interest is joint and cartilage health — since aging cartilage tends to break down and lose its ability to repair itself, and Cartalax has shown gene-activating effects related to cartilage repair in lab studies.

WHAT DO HUMAN STUDIES SHOW?

According to the existing research, there are no published human clinical trials of Cartalax specifically. A related, broader treatment (called the cartilage polypeptide complex, of which Cartalax's active ingredient is one part) has reportedly entered a Phase 2 study in Russia, but detailed results for Cartalax itself weren't found (Int J Mol Sci 2023).

ANIMAL RESEARCH

Most of the actual lab evidence comes from cell cultures rather than living animals — cartilage cells (chondrocytes) treated with Cartalax's active ingredient showed improvements in markers linked to cellular aging (PMID 37356100), and aging skin cells from rats showed changes in markers related to cell growth and survival (Int J Mol Sci 2023). An important limitation: virtually all of this research comes from one single research group, much of it published in Russian-language journals, meaning there's been little to no independent confirmation by other scientists.

SIDE EFFECTS

There is no published human safety data of any kind — no formal list of side effects, no safety testing results, and no known contraindications (reasons someone should avoid it). The fact that no harm has been reported doesn't mean it's proven safe; it more likely just reflects how little testing has been done.

EXPERIMENTAL RESEARCH DOSES

The existing research doesn't establish any human dosing information at all — no half-life, no absorption data, nothing. The lab studies simply exposed cells directly to the peptide in a growth dish at a concentration of about 200 nanograms per milliliter, which is a lab measurement, not something that translates into a real-world human dose.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Cartalax has a small but notably passionate following on peptide forums like r/Peptides, r/PeptideForum, r/BiohackingU, and r/PurePeptides, mostly among people using it for joint pain, arthritis, and degenerative disc issues. Several posters describe dramatic relief from chronic joint or back pain after a few weeks of use, with some calling it "incredible" for conditions like degenerative disc disease and pinched nerves (Reddit r/BiohackingU). Others report more modest or no improvement, especially for existing severe cartilage damage, with one user noting it seems to "slowly rebuild" rather than provide dramatic quick fixes (Reddit r/BiohackingU). It's frequently mentioned alongside BPC-157 and TB-500 as part of a joint-recovery "stack." Overall, this matches the instructions' expectation for obscure Khavinson-style bioregulators: public community discussion for Cartalax is present but notably thinner and less consistent than for more mainstream peptides, and personal accounts (not clinical evidence) dominate the conversation.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

The lowest dose commonly mentioned is around 1 mg per day. The most commonly discussed dose is 2 mg per day, generally injected under the skin (subcutaneously) into the abdomen. The typical length of use discussed is a 20-to-30-day cycle, sometimes repeated after a break of a few weeks to months. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

GHK-Cu · No. 45

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
50 mg	$40	$200
100 mg	$50	$250

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

GHK-Cu is a naturally occurring tiny peptide made of three amino acids (glycine, histidine, and lysine) bound to a copper atom. Unlike many lab-made peptides, this one is actually found in your own body already — it was first discovered in human blood (plasma) back in 1973, and your levels of it naturally decline as you age, dropping by more than half between age 20 and age 60 (Pickart & Margolina, BioMed Res Int 2015).

WHAT DOES IT DO?

GHK-Cu acts like a safe delivery system for copper, carrying it into cells without letting it cause damage the way loose, uncontrolled copper can. Once inside, at very tiny doses, it turns on genes and processes that help build and maintain collagen (the protein that keeps skin firm) and other connective tissue components. It also seems to encourage the growth of new blood vessels and helps regulate a huge number of genes — one study found it can influence activity in roughly 4,000 different genes (BioMed Res Int 2015).

WHY ARE RESEARCHERS INTERESTED?

The main areas of interest are skin health (anti-aging, wrinkles, firmness) and general healing — small human studies using GHK-Cu skin creams reported improved skin texture, firmness, and reduced wrinkles.

WHAT DO HUMAN STUDIES SHOW?

Several small studies (roughly 40-70 people each) tested GHK-Cu skin creams over about 12 weeks and found improvements in skin firmness, clarity, thickness, and reduced wrinkles compared to a placebo cream or other anti-aging ingredients like vitamin C and retinoic acid (BioMed Res Int 2015). An important caveat: this research summary was written by someone with a financial interest in GHK-Cu products, and truly independent, large, properly registered clinical trials are still lacking.

ANIMAL RESEARCH

Animal and lab research on GHK-Cu shows it helps wounds close (contract) faster, helps skin grafts "take" (successfully attach and heal) better, and boosts the body's natural antioxidant defense enzymes (BioMed Res Int 2015). Claims about using it as an injection for deep tissue or systemic healing are still mostly theory-based rather than proven by solid trials.

SIDE EFFECTS

For topical (skin cream) use, the available review reports no problems arising in cosmetic studies, and lab work suggests the concentrations used are non-toxic to cells — but no formal measurement of exactly how much would be harmful (called an LD50, or the amount that would be lethal to half of test subjects) has ever been established for humans (BioMed Res Int 2015). For injectable use, the FDA has specifically flagged concerns about immune reactions and noted a lack of solid human safety data (FDA). Because it delivers copper, there's a general theoretical concern about copper buildup with heavy or prolonged use.

EXPERIMENTAL RESEARCH DOSES

GHK-Cu dissolves easily in water and breaks down fairly quickly in the body, so no reliable human half-life or absorption numbers have been established in published research. One review offers only a rough guess of 100-200 mg as a possible dose range for humans, but this is described as a hypothetical estimate, not something confirmed by real testing (BioMed Res Int 2015).

WHAT IS THE RESEARCH COMMUNITY SAYING?

GHK-Cu has a large, active, and split community spanning both skincare-focused subreddits (r/SkincareAddiction, r/30PlusSkinCare) and biohacking/peptide-focused ones (r/Peptides, r/Biohackers, r/Peptidesource). Topical (skin-applied) users commonly report smoother texture, fewer fine lines, and a healthier glow after weeks to months of consistent use — though many describe the changes as subtle rather than dramatic (Molecular Reference GHK-Cu summary). A separate group of users injects reconstituted GHK-Cu powder under the skin, chasing similar skin benefits plus reports of thicker hair, faster scar fading, and improved stretch marks (Reddit r/Peptides). A recurring and somewhat alarming side-effect report is a phenomenon nicknamed the "copper uglies" — a temporary period of breakouts, dull skin, and increased body hair that some users experience a few weeks into use, possibly linked to a temporary zinc/copper imbalance, though this isn't confirmed by formal research (Reddit r/Biohackers). A common skincare debate is whether copper peptides and vitamin C cancel each other out, leading many people to use them at different times of day. Overall sentiment leans toward cautious optimism — genuine believers exist, but so do people who tried it for months and saw nothing.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

For topical use, the lowest and most common concentration discussed is around 1% GHK-Cu mixed into a serum, applied once or twice daily. For injectable use, the lowest doses mentioned are around 1 mg per day, the most commonly discussed doses cluster between 1 mg and 3.5 mg per day (often 5 days on and 2 days off, or cycles of several weeks on followed by a break), and the highest doses some users mention reach up to 10 mg per day or more, split into two doses. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Hyaluronic Acid · No. 46

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
5 mg	$90	$450

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Hyaluronic acid isn't actually a peptide at all — it's a totally different kind of molecule called a glycosaminoglycan (say: gly-co-sam-in-o-gly-can), which is basically a long chain of sugar molecules linked together, not a chain of amino acids like a real peptide. It naturally exists in your joints, skin, and eyes, where it acts like a slippery cushion. For medical use, it's manufactured in different sizes (weights), and some versions are chemically "cross-linked" (bonded together more tightly) to make them last longer in the body (Cartilage 2021).

WHAT DOES IT DO?

Think of hyaluronic acid like the oil that keeps a rusty door hinge moving smoothly — when injected into a joint like the knee, it's supposed to make the joint's natural fluid slippery and cushiony again, easing friction between bones. For a long time, regulators thought it worked purely as a physical lubricant, like grease, rather than through a chemical/biological pathway. But the FDA has now said the evidence suggests it might also work through actual chemical activity in the body, not just mechanical cushioning (Federal Register 2018).

WHY ARE RESEARCHERS INTERESTED?

The main interest area here is joint/pain relief connected to healing and tissue repair — specifically knee osteoarthritis (a type of joint wear-and-tear that causes pain). It is not linked to fat loss, muscle growth, sleep, brain function, or the other categories in the existing research.

WHAT DO HUMAN STUDIES SHOW?

Human studies have been extensive but the results are mixed and a bit disappointing overall. A major review found that hyaluronic acid injections into the knee might reduce pain scores in the short term, but they did NOT meaningfully improve function or stiffness on more detailed scoring systems (Pharmaceuticals 2024). When scientists looked only at the highest-quality studies, the benefit was so small it barely counted as meaningful (RMD Open 2015). It clearly beat plain saltwater injections in some FDA studies (HYMOVIS trial), but one major group of orthopedic doctors (AAOS) says don't bother using it routinely for knee arthritis, while another group (VA/DoD) gives it only a weak thumbs-up. Nobody has good evidence it works well outside the knee.

ANIMAL RESEARCH

The existing research summary does not describe any animal studies for hyaluronic acid — its evidence comes almost entirely from human trials and device-approval testing.

SIDE EFFECTS

Overall it's considered pretty safe, based on a safety review of over 8,000 patients (Cartilage 2019). The most common issues are pain and temporary swelling right where the shot was given. A less common but scarier reaction is a sudden, intense inflammation flare in the joint (sort of like the joint temporarily getting angry), especially with the more heavily processed cross-linked versions. Very rarely, the joint can get infected. People shouldn't get these shots if they already have an infection at the injection site or in the joint, or certain skin conditions there.

EXPERIMENTAL RESEARCH DOSES

In research and approved use, hyaluronic acid is given as 1 to 5 separate injections directly into the joint (not as a pill or under-the-skin shot), with the exact number depending on the specific product. This is purely descriptive of how it has been studied and used medically — not a suggestion for anyone to try it themselves.

WHAT IS THE RESEARCH COMMUNITY SAYING?

On forums like Reddit's r/KneeInjuries, people's real-world experiences closely match what the science shows: results are inconsistent (Reddit r/KneeInjuries). Many people say the shots help for about 2-3 months and then the benefit fades, letting them do more vigorous activities like running or soccer during that window. Others report the injections did nothing for their knees at all, and a few describe their knee actually getting worse afterward, with doctors calling this an unusual reaction. Cost is a recurring complaint — one person mentioned paying $750 for a single treatment since many insurance plans won't cover it.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community members mostly discuss the standard medical protocol rather than experimenting with unofficial doses: commonly 1 to 3 injections spaced about a week apart, sometimes repeated as an annual course. Some described trying a single dose instead of the usual three-injection series after switching doctors. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

KPV · No. 47

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
10 mg	$60	$300

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

KPV is a tiny peptide made of just three amino acids — Lysine, Proline, and Valine (hence the name KPV) — snipped from the tail end of a natural hormone called alpha-MSH, which your body already makes (Dalmasso et al., Gastroenterology 2008). Scientists didn't invent it from scratch; they identified this small active piece of a bigger natural molecule because it seemed to calm down inflammation on its own.

WHAT DOES IT DO?

Imagine your gut cells have a special doorway called PepT1 that lets in small nutrient fragments — KPV sneaks through that doorway and, once inside the cell, tells an inflammation "alarm switch" called NF-κB to quiet down. It doesn't work by locking onto typical hormone receptors on the outside of cells like alpha-MSH does; instead it gets pulled directly inside through that transporter and works from within, calming several inflammation-signaling pathways at once (PMC2431115).

WHY ARE RESEARCHERS INTERESTED?

Researchers are interested in KPV mainly for inflammation control and healing — specifically calming gut/intestinal inflammation (like the kind seen in colitis). It hasn't been shown to help with fat loss, muscle growth, sleep, brain function, or the other categories not mentioned in the source data.

WHAT DO HUMAN STUDIES SHOW?

There are zero human studies of KPV. The FDA has specifically stated that it hasn't found any human exposure data at all for this peptide, by any method of taking it (FDA). Anything people say about KPV helping wounds heal or calming the gut in humans is currently just a guess based on lab and animal data, or personal anecdotes — not proven science.

ANIMAL RESEARCH

In mice with induced colitis (an inflamed bowel condition), giving KPV in their drinking water reduced weight loss, cut a marker of gut inflammation in half, improved how the gut tissue looked under a microscope, and lowered several inflammatory chemical messengers (PMC2431115). A separate study used tiny nanoparticles to deliver KPV directly to inflamed gut tissue in mice and also saw improvement (Mol Ther 2017).

SIDE EFFECTS

There's no human safety data whatsoever. In mice, KPV by itself didn't change normal, healthy gut inflammation levels, suggesting it isn't harmful under those specific test conditions. The FDA has openly said it doesn't know whether KPV would cause harm in people. Scientists have a theoretical worry that constantly turning down NF-κB (the inflammation alarm) for a long time could weaken the immune system's ability to fight things off, but this hasn't actually been tested.

EXPERIMENTAL RESEARCH DOSES

In the mouse colitis study, researchers gave KPV continuously in the drinking water at a concentration of 100 micromolar. No human dosing information exists in the reviewed research because no human trials have been conducted. This description is purely about what was studied in animals, not a recommendation for people.

WHAT IS THE RESEARCH COMMUNITY SAYING?

KPV has a genuinely active community, especially on Reddit's r/Peptides and a dedicated subreddit r/KPVPeptide (Reddit KPV Experiences; r/KPVPeptide welcome post). People report using it for gut issues (like IBD flares), skin conditions like eczema and psoriasis, and general inflammation, often pairing it with peptides like BPC-157 or TB-500 to potentially offset unwanted side effects from those. Reported benefits include reduced gut pain, better stool consistency, clearer skin, and more energy. On the downside, several users with sensitive conditions (like MCAS or CIRS, immune-related disorders) describe unpleasant reactions resembling a flu — chills, headache, rapid heartbeat, and anxiety — sometimes called a "Herxheimer reaction" (a temporary worsening some believe happens when bacteria die off). Most people describe KPV as one of the gentler, safer peptides they've tried, though a small number report no effect at all.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

The lowest doses discussed online are tiny "microdoses," sometimes described as roughly 1/100th of a capsule taken orally to start. The most commonly cited range for subcutaneous injection is 200 to 500 micrograms once daily, with some structured guides suggesting a gradual increase from 200 mcg up to 500 mcg over several weeks. On the higher end, some online sources mention advanced protocols in the 10-20 milligram range for gut-focused use, and a few individual posters mention taking over 500 micrograms. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Lipo-C · No. 48

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
10 mL	$60	$300

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Lipo-C, also called MIC or a "lipotropic injection," is not a peptide at all — it's a custom-mixed injection made by specialty pharmacies, usually combining three nutrients: methionine, inositol, and choline (that's where the letters M-I-C come from), often with added vitamin B12 or L-carnitine. There's no single official recipe — every pharmacy can mix it a bit differently, so what you get can vary a lot from one supplier to the next.

WHAT DOES IT DO?

The basic idea is that these nutrients help your liver move fat around and out of itself, sort of like a delivery truck helping clear out a cluttered warehouse. Choline especially is needed to build the molecules that shuttle fat out of liver cells — without enough choline, fat can build up in the liver (NIH ODS). However, there's no solid proof that giving these nutrients to someone who ISN'T deficient in them actually causes noticeable fat loss anywhere in the body.

WHY ARE RESEARCHERS INTERESTED?

Despite being marketed for fat loss and placed in a "healing/tissue repair" category by vendors, no credible published research actually supports either of those uses for Lipo-C. Its individual ingredients have known nutritional roles, but there's no established connection to fat loss, muscle growth, or tissue repair specifically from this injection.

WHAT DO HUMAN STUDIES SHOW?

No credible controlled human trials were found showing Lipo-C or MIC injections cause fat loss, help with body shaping, or repair tissue. A broad review of weight-loss supplements didn't even include these specific ingredients and generally concluded there's "very little clinical evidence" behind most supplement approaches to weight loss (Egras et al. 2010). Any reported weight loss from Lipo-C in the real world is likely explained by other factors happening at the same time, like dieting or taking separate weight-loss medications.

ANIMAL RESEARCH

No animal studies were identified in the source research for Lipo-C as a combination product.

SIDE EFFECTS

People often report pain, redness, or bruising where the shot goes in. Looking at the individual ingredients, taking too much choline specifically can cause a fishy body odor, vomiting, sweating, drooling, low blood pressure, and even liver damage in extreme cases — the safe upper daily limit for adults is 3,500 mg (NIH ODS). Since Lipo-C is custom-mixed by pharmacies rather than mass-produced and FDA-tested, how clean and accurately dosed each batch is depends entirely on the pharmacy making it.

EXPERIMENTAL RESEARCH DOSES

There's no formal, tested dosing schedule in the scientific literature — this is a compounded product without an official recipe, and pharmacies typically suggest weekly intramuscular or under-the-skin injections based on their own internal protocols rather than published clinical research.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Lipo-C/MIC shots come up constantly in weight-loss communities, especially among people also using GLP-1 medications like Zepbound or tirzepatide (Reddit r/Zepbound; Reddit r/Peptidesource). A common theme: people say it gives them a mild, steady energy boost and helps offset fatigue caused by their weight-loss medication, but most are honest that it's hard to tell how much it's actually helping with weight loss specifically, since they're doing several things at once. Reactions are genuinely split — some say it "broke through a plateau," while others tried it for weeks with zero noticeable effect. A few users mention that the injections sting badly, and one mentioned developing a rash they suspected was linked to Lipo-C. Overall, the community consensus mirrors the science: it's seen as a mild helper, not a real fat-loss driver, and works best alongside diet and exercise.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

The most commonly discussed amounts are 0.5 to 1 milliliter injected under the skin or into a muscle, one to three times per week, with some people going as high as daily use or larger single doses of 2-3 mL. A forum-derived guide suggests total weekly amounts up to about 9 mL in some higher-use protocols. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

LL-37 · No. 49

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
5 mg	$65	$325

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

LL-37 is a piece cut from a larger natural human protein called hCAP18, and it's part of your body's built-in germ-fighting system (called the innate immune system). It's sometimes given the drug-development nickname "ropocamptide" (Promore Pharma). It's made of 37 amino acids folded into a shape that likes both water and fat, which is part of why it can poke holes in germ cell walls.

WHAT DOES IT DO?

Picture LL-37 as tiny daggers that punch holes in bacteria, fungi, and other germs' outer walls, killing them directly. But it does more than that — it also acts like a messenger, calling in immune cells, helping new blood vessels grow, and encouraging skin cells to move and multiply to close up wounds (Duplantier & van Hoek 2013). People with higher natural LL-37 levels in their blood tend to heal leg ulcers faster.

WHY ARE RESEARCHERS INTERESTED?

Researchers are interested in LL-37 mainly for wound/tissue healing — specifically hard-to-heal wounds like venous leg ulcers and diabetic foot ulcers — plus its natural antimicrobial (germ-fighting) role. It's not shown to help with fat loss, muscle growth, sleep, or brain function in this data.

WHAT DO HUMAN STUDIES SHOW?

Results in real trials are genuinely mixed. A small first trial in 34 people with tough-to-heal leg ulcers found that a certain dose of topical LL-37 sped up healing quite a bit compared to placebo (a fake treatment), though a higher dose didn't work as well (Grönberg et al. 2014). But the bigger, more important follow-up trial with 148 people — called HEAL LL-37 — failed to show any real benefit for the whole group; only a smaller sub-group with larger wounds seemed to improve, and that kind of after-the-fact finding is less trustworthy (PMID 34687253). A separate trial on diabetic foot ulcer cream found faster healing but no actual drop in inflammation markers (Arch Dermatol Res 2023). Bottom line: the biggest, best-designed trial did NOT clearly prove it works.

ANIMAL RESEARCH

The existing research summary doesn't describe specific animal studies for LL-37 — the evidence focus is on human clinical trials of the topical form.

SIDE EFFECTS

In the actual controlled human trials, topical LL-37 was safe and well tolerated with no notable local or body-wide problems at the doses tested. However, the FDA warns that lab studies (not necessarily on LL-37 exactly as used in trials) hint at possible harm to male fertility and a worrying potential to help tumors grow in some tissues if it's compounded and used more broadly (FDA). Interestingly, higher concentrations of LL-37 actually worked less well in trials, suggesting that too much of it might start harming cells rather than helping them.

EXPERIMENTAL RESEARCH DOSES

In human trials, LL-37 was applied as a topical gel or cream at concentrations of 0.5 to 3.2 milligrams per milliliter, usually twice a week under a compression bandage, for several weeks. This information describes only what was tested in research and is not a usage suggestion.

WHAT IS THE RESEARCH COMMUNITY SAYING?

LL-37 generates real debate online, with opinions ranging widely. On Reddit's r/Peptides, one user flatly called it one of the few peptides they "can't be paid to use," citing concerns it can worsen autoimmune conditions by over-activating certain immune alarm pathways (Reddit r/Peptides). Others describe using it for suspected chronic infections, biofilms (stubborn bacterial colonies), gut issues, or as part of mold-illness recovery protocols, sometimes reporting real improvement in energy, breathing, or skin. But there are also reports of it making bladder pain, joint inflammation, or general symptoms worse, and one detailed independent write-up flatly states that no human trial has ever shown injected LL-37 actually clears a chronic infection (Molecular Reference). A thread titled "Final verdict on LL-37?" sums up the split feelings well — some swear by it, others warn people away (Reddit final verdict thread).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Reported doses online vary enormously and show little agreement: some people use around 100-200 micrograms daily by injection, while others describe up to 2-10 milligrams a few times per week. One widely cited independent analysis found dosing protocols ranging "from 2mg twice weekly to 10mg daily, with zero consensus on what constitutes an effective or safe range" (Real Peptides analysis). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Matrixyl · No. 50

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
10 mg	$45	$225

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Matrixyl is the brand name for a lab-made cosmetic ingredient called palmitoyl pentapeptide-4 — a tiny 5-amino-acid chain (sequence KTTKS) attached to a fatty tail (palmitic acid) that helps it soak into skin (CIR Safety Assessment 2024). It was developed for use in anti-aging skincare products, and it's a small piece copied from a bigger natural protein your skin makes called collagen.

WHAT DOES IT DO?

Your skin's collagen (the protein that keeps skin firm) is constantly being broken down into small pieces as part of a natural remodeling cycle, and one of those small pieces happens to be KTTKS. Scientists figured out that applying this same small fragment topically might trick skin cells into thinking collagen is breaking down and needs replacing — so the cells respond by making more new collagen, elastin, and other structural proteins. Adding the fatty tail helps the molecule stay in the skin longer and soak in better (CIR 2024).

WHY ARE RESEARCHERS INTERESTED?

The main area of interest here is skin health — specifically reducing the appearance of fine lines and wrinkles as part of anti-aging skincare. This is a cosmetic effect, not linked to fat loss, muscle growth, sleep, or the other broader categories.

WHAT DO HUMAN STUDIES SHOW?

There is one solid, well-designed human trial: a 12-week study of 93 women aged 35-55, done in a double-blind way (meaning neither the researchers nor participants knew who got the real product) and comparing one side of the face to the other. It found that a very low concentration of Matrixyl (just 3 parts per million) in a moisturizer noticeably reduced wrinkles and fine lines compared to plain moisturizer, and people tolerated it well (Robinson et al. 2005). It's worth noting this study was linked to the company that makes Olay products. A separate larger study compared it to a prescription-strength retinoid cream for skin tolerance. No study has shown it actually heals wounds or repairs deeper tissue damage — its proven benefits are strictly about how skin looks.

ANIMAL RESEARCH

In lab tests using mouse skin, most of the applied Matrixyl stayed in the outer layers of skin and didn't pass all the way through — meaning it mostly stays local rather than getting absorbed into the bloodstream, which is generally seen as a safety plus for a topical product (CIR 2024). Separate animal safety tests (in rats, rabbits, and guinea pigs) found no significant toxicity, and it wasn't irritating to eyes or skin at the tested concentration.

SIDE EFFECTS

Overall it has a very favorable safety record. It did not cause genetic damage in lab bacteria tests, wasn't irritating to skin or eyes in animal testing, and passed a 51-person human patch test without causing irritation or allergic reactions. One specific lab skin-irritation test (called HET-CAM) rated a mixture containing it as "moderately irritating," though far less irritating than a harsh soap-based control substance. It's typically used in skincare products at extremely tiny concentrations.

EXPERIMENTAL RESEARCH DOSES

In the key human study, it was used at 3 parts per million (an extremely small amount) mixed into a moisturizer and applied to the face over 12 weeks. This is purely a description of what was tested in a clinical trial — not a usage instruction.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Skincare communities on Reddit (like r/SkincareAddiction and r/30PlusSkinCare) generally describe Matrixyl in cautiously positive terms — smoother, slightly plumper-feeling skin, and reduced fine lines with consistent use over 8-12 weeks, but many users honestly admit they can't tell for certain if it's working, since they use it alongside other skincare products at the same time (Reddit r/SkincareAddiction). A recurring theme is that Matrixyl is well-tolerated even by people with sensitive skin who can't handle stronger anti-aging ingredients like retinol. One independent review site summed up the mood as "a qualified yes on Reddit, not a standing ovation" — people notice hydration quickly but a real change in wrinkles takes patience and is hard to separate from other products in someone's routine (Molecular Reference).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Since this is a topical skincare ingredient, the community doesn't really discuss "doses" the way injectable peptides are discussed — instead, people talk about product concentrations, typically products containing anywhere from a very low percentage up to about 10% Matrixyl blends (like The Ordinary's Matrixyl 10%), applied once or twice daily. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

PTD-DBM · No. 51

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
5 mg	$90	$450

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

PTD-DBM stands for "protein transduction domain–Dishevelled binding motif" — a mouthful, but basically it's a lab-made fusion peptide, meaning scientists stitched two different functional pieces together. One piece (the PTD) acts like a key that lets the peptide slip inside cells, and the other piece (the DBM) is designed to interfere with a specific protein interaction related to hair growth. It was developed by researchers at Yonsei University in South Korea studying why hair follicles shrink and stop growing in balding scalps.

WHAT DOES IT DO?

Imagine a protein called CXXC5 acting like a brake pedal that normally slows down hair growth signals in your scalp; PTD-DBM works by sneaking in and blocking that brake from being pressed, which lets a growth-promoting pathway called Wnt/beta-catenin run more freely. When that pathway stays switched on, hair follicles are encouraged to grow and even new follicles can form during wound healing in mice (Lee SH et al. 2017).

WHY ARE RESEARCHERS INTERESTED?

The main area of interest is hair growth, specifically for conditions like androgenetic alopecia (hormone-driven pattern hair loss). It hasn't been studied for fat loss, muscle growth, sleep, brain function, or the other listed categories.

WHAT DO HUMAN STUDIES SHOW?

No human clinical trials of PTD-DBM have been identified anywhere in the published research. Everything known about whether it actually regrows hair in real people is still theoretical, based only on lab and animal data, plus scattered personal reports online.

ANIMAL RESEARCH

In mice, applying PTD-DBM to the skin stimulated hair to regrow and also triggered the formation of entirely new hair follicles during wound healing — a process scientists call "wound-induced hair neogenesis" (PMID 28595998). Combining it with a drug called valproic acid (normally used for bipolar disorder, but which also activates the same growth pathway) made the effect even stronger. Later mouse research extended the findings to hair loss caused by the hormone DHT and a related inflammatory molecule called PGD2 (Cells 2023). Notably, the same research team then moved on to develop a different, drug-like small molecule (called KY19382) instead of continuing with the peptide itself — which hints that even the original scientists saw the peptide as a stepping stone rather than a final product.

SIDE EFFECTS

There is no human safety data. Mouse studies didn't report obvious signs of toxicity, but they also weren't specifically designed to test safety in detail. The biggest theoretical worry among scientists is that constantly switching on the Wnt/beta-catenin growth pathway everywhere in the body (not just the scalp) could theoretically raise cancer risk in skin or the colon, since that same pathway is involved in some cancers — but this specific risk hasn't actually been studied for PTD-DBM.

EXPERIMENTAL RESEARCH DOSES

In published mouse research, PTD-DBM was applied topically (directly onto the skin) to test hair regrowth and wound-related effects, with no human dosing information available since no human trials exist. This description reflects only what was done in lab animals, not a suggestion for people.

WHAT IS THE RESEARCH COMMUNITY SAYING?

PTD-DBM has a small but genuine following in hair-loss communities like r/tressless and r/HairlossResearch, often mentioned alongside other experimental options like GHK-Cu (Reddit r/tressless). Reports are mixed and mostly inconclusive: some users describe noticing tiny new "peach fuzz" hairs near their hairline after a couple of months of use, often combined with microneedling and valproic acid, while others say they've seen little from it and note that the initial hype seems to have faded over time. One detailed video reviewer stated plainly, "I have not found any substantial anecdotal evidence from Reddit or other online forums that PTD-DBM works very well," while still finding the underlying science interesting enough to try it personally. Overall, honest community sentiment leans toward "promising idea, unproven in practice."

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

For topical use, people commonly describe using around 0.5% concentration solutions applied once daily to the scalp, sometimes mixed by compounding pharmacies as a spray. A smaller number of posts mention injectable/investigational use, with amounts like 18 mg of powder mixed into a few milliliters of solution and small volumes injected into multiple scalp spots for short periods (around 10 days), citing concerns about the peptide's stability lasting longer than that. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

TB-500 · No. 52

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
2 mg	$35	$175
5 mg	$45	$225
10 mg	$85	$425
20 mg	$90	$450

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

"TB-500" is a confusing name because it doesn't always mean the exact same thing. The FDA officially defines it as a small fragment (a snipped-out piece) of a bigger natural protein called Thymosin beta-4, specifically the 7-amino-acid piece called LKKTETQ (FDA). But many vendors sell products labeled "TB-500" that actually contain the full, much larger 43-amino-acid protein instead. So when someone says "TB-500," they might mean either the tiny fragment or the whole original protein — and this mix-up matters a lot for understanding the research.

WHAT DOES IT DO?

The full protein, thymosin beta-4, works partly by grabbing onto a building-block molecule inside cells called actin, which is important for cells being able to move around, form new blood vessels, and repair damage — think of it like helping cells "crawl" toward an injury to fix it. Different parts of the full protein handle different jobs: one small region calms inflammation, another helps cells survive, and a third region (which is the actual "TB-500" fragment) is mainly responsible for cell movement, new blood vessel growth, and wound healing (Sosne & Berger 2023).

WHY ARE RESEARCHERS INTERESTED?

The main areas of interest are healing and tissue repair, specifically wound healing, and there's meaningful research around eye surface healing (corneal repair) using the full-length protein. It hasn't been shown in solid human research to help with fat loss, muscle growth, sleep, or brain function, though injectable use for muscle/tendon injuries is a popular but scientifically unstudied claim.

WHAT DO HUMAN STUDIES SHOW?

This is where the naming confusion really matters: solid human trial data exists only for the full-length protein (called thymosin beta-4, or the drug-development name RGN-259), not for the small 7-amino-acid fragment most vendors call "TB-500." In an eye-drop trial for a nerve-related corneal disease, 6 out of 10 people using the treatment fully healed at 4 weeks versus just 1 of 8 using placebo, with a further larger trial now underway (Int J Mol Sci 2022; NCT05555589). However, a separate trial testing it for dry eye disease actually missed its main goals, even though some secondary measurements improved (Clin Ophthalmol 2015). Importantly, systemic injectable use — the way most people actually use "TB-500" for tendon, muscle, or ligament injuries — has never been studied in humans at all; that entire use case is completely unstudied and based only on personal reports.

ANIMAL RESEARCH

In rodent studies, the full-length protein improved outcomes in models of traumatic brain injury as well as heart and skin repair (Front Endocrinol 2021).

SIDE EFFECTS

For the topical eye-drop version of the full protein, controlled human trials showed no significant safety problems. But for the injectable fragment that's actually sold as "TB-500," there is no human safety data at all — the FDA explicitly states it doesn't know whether this fragment would cause harm if given to people (FDA). Scientists also have a theoretical concern that anything promoting new blood vessel growth (angiogenesis) could theoretically help feed an undetected tumor, though this is unproven.

EXPERIMENTAL RESEARCH DOSES

The only human clinical dosing information available concerns the eye-drop form of the full protein, used at a 0.1% concentration applied 5 times per day for 28 days. For the injectable fragment most people actually use, there's no established human dosing in the scientific literature at all — non-clinical animal use has relied on injections under the skin or into muscle. This is a description of what has been studied, not a usage recommendation.

WHAT IS THE RESEARCH COMMUNITY SAYING?

TB-500 has an active following in biohacking and injury-recovery communities, frequently paired with another peptide called BPC-157. On Reddit's r/Biohackers, one user described starting both together for chronic knee pain, noticing slight improvement in the first two weeks, then a dramatic shift by week three where almost all pain disappeared and they no longer needed a knee brace (Reddit r/Biohackers). Similar enthusiastic reports appear for shoulder and back pain. However, a notable amount of community discussion is actually about untangling the naming confusion — many threads exist specifically debating whether someone's vial contains the small fragment or the full protein, since vendors use "TB-500" inconsistently, and people note real vials tested by labs sometimes don't even contain what's advertised. Some users report no benefit at all for their injuries despite trying both peptides.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Commonly discussed injectable doses range from about 2 to 2.5 milligrams given two times per week for an initial "loading phase" of 4-6 weeks, dropping to roughly 2 milligrams once weekly or every other week afterward for maintenance. Some individual posters describe combining 500 micrograms of TB-500 with a similar dose of BPC-157 daily. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

TB-500 Fragment 17-23 · No. 53

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
10 mg	$70	$350

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

This is the specific, small 7-amino-acid piece called LKKTETQ, cut out from the middle of the larger 43-amino-acid protein thymosin beta-4. Usually it's sold with a chemical modification on one end (making it "Ac-LKKTETQ") to help it survive longer in the body. The FDA officially names this exact molecule as "Thymosin beta-4, fragment (LKKTETQ), also known as TB-500" (FDA). Importantly, this is chemically the very same substance that most vendors are actually selling when they use the name "TB-500" — these two catalog entries describe essentially one molecule, not two different things.

WHAT DOES IT DO?

This 7-amino-acid piece specifically represents the "actin-binding" part of the larger parent protein — meaning it's the section responsible for helping cells grab onto and move around a building-block molecule called actin, which is important for cell movement, new blood vessel formation, and wound healing. However, because it's only this one small piece, it's missing the other parts of the full protein that are responsible for calming inflammation and helping cells survive — so even though it retains the movement/healing-related activity, it does NOT reproduce everything the full-length protein can do (Sosne & Berger 2023).

WHY ARE RESEARCHERS INTERESTED?

The main area of interest is tissue healing and repair — cell movement, new blood vessel formation, and wound healing specifically. There's no supported connection here to fat loss, muscle growth, sleep, or brain function based on the existing research.

WHAT DO HUMAN STUDIES SHOW?

There are no human studies of this fragment specifically. The FDA states plainly that it has not identified any human exposure data for drug products containing this exact fragment (FDA). All the human eye-related clinical trial data that does exist for thymosin beta-4 was actually done using the full-length, 43-amino-acid protein — not this smaller fragment — so that data can't be directly applied here. Reports about faster tendon, ligament, or muscle recovery from this fragment in humans are purely anecdotal, meaning personal stories rather than proven science.

ANIMAL RESEARCH

The main evidence for this fragment's activity comes from lab studies mapping out which section of the parent protein does what — essentially figuring out that this particular 7-amino-acid stretch is responsible for the movement and healing-related actions. Most of the actual animal experiments studying real wound repair used the full-length protein, not this isolated fragment, meaning there's a gap between "we know this piece theoretically matters" and "we've proven this exact piece works the same as the whole protein in a living animal."

SIDE EFFECTS

There is no human safety information of any kind for this specific fragment. The FDA points to concerns about immunogenicity (meaning the immune system might react against it) from clumping or impurities that can occur during manufacturing, and states it lacks basic safety information, including whether this fragment would cause harm if given to humans. There's also an unquantified theoretical concern about promoting blood vessel growth in the context of a hidden tumor, similar to the concern for the full protein.

EXPERIMENTAL RESEARCH DOSES

There is no established or measured dosing information in published scientific literature for this fragment in either humans or animals — non-clinical use has generally been by injection under the skin or into muscle, but no formal dose-response data exists. This description reflects the absence of formal study data, not a usage suggestion.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Since this fragment IS what most people mean when they say "TB-500," the community discussion largely overlaps with the general TB-500 conversation, but with a specific added layer of discussion about telling the fragment apart from the full-length protein. On Reddit, entire threads are dedicated to explaining that "TB4" (full-length) and "TB-500" (this fragment) are different molecular weights and have different lengths, with some users insisting the full-length version is "tried and true" while the smaller fragment has "basically no reviews" of its own separate from the full protein's reputation (Reddit r/Peptides). Users frequently debate which version offers a better cost-per-effect, noting the fragment is cheaper per milligram, while some feel the full protein delivers more noticeable results despite requiring more frequent dosing due to a shorter half-life.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community-reported doses mirror general TB-500 discussion: commonly 2 to 2.5 milligrams injected under the skin twice weekly during an initial loading period, tapering to roughly 2 milligrams weekly or every other week for maintenance. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

SECTION 05

Immune / Bioregulator

12
COMPOUNDS

Short signaling peptides studied for organ-specific regulation and immune-system research.

Bronchogen · No. 54

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
20 mg	$80	$400

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Bronchogen is a very short, lab-made peptide made of just four amino acids — Alanine, Glutamic acid, Aspartic acid, and Leucine, abbreviated AEDL (Molecules 2021). It belongs to a family of peptides called "bioregulators" developed by a Russian scientist named Vladimir Khavinson, who created a whole series of these tiny peptides that are each claimed to specifically target a particular organ — in this case, the lungs and airways (bronchi).

WHAT DOES IT DO?

Instead of locking onto a typical hormone receptor like most peptides, Bronchogen is proposed to work by directly attaching to your DNA and to structures called histones (proteins that DNA wraps around), essentially nudging certain genes on or off — this is called an "epigenetic" effect, meaning it's about controlling which genes get used, not changing the genes themselves (Biochemistry (Mosc) 2011). In lab studies, it appeared to switch on specific genes involved in keeping lung and airway cells healthy and functioning correctly.

WHY ARE RESEARCHERS INTERESTED?

The area of interest here is lung/respiratory health and inflammation — specifically supporting bronchial tissue repair in conditions like COPD (a chronic lung disease). There's no supported link in this data to fat loss, muscle growth, sleep, brain function, or the other categories.

WHAT DO HUMAN STUDIES SHOW?

No human clinical trials of Bronchogen have been identified at all. Everything currently known comes from lab dish experiments and animal studies — there's a complete gap when it comes to actual human testing.

ANIMAL RESEARCH

In rats given a chemical that damages the lungs to mimic COPD, one month of Bronchogen treatment reversed several signs of lung damage: it fixed an overgrowth of mucus-producing cells, reduced abnormal changes in lung lining cells, restored the tiny hair-like structures (cilia) that sweep out debris, boosted a protective immune antibody, and balanced out inflammatory chemical signals in the airways (Bull Exp Biol Med 2015; Ross Fiziol Zh 2017). Separately, in lab dish experiments with aging human bronchial cells, it activated certain genetic markers linked to healthy cell development (Bull Exp Biol Med 2012). Importantly, this research has all come from essentially one research group, and no independent lab outside that group has repeated or confirmed these findings.

SIDE EFFECTS

No formal, controlled safety testing has been done at all. In the animal studies, researchers didn't observe obvious signs of harm, but those studies weren't specifically designed to test for safety — they were focused on whether it worked, not whether it was safe long-term.

EXPERIMENTAL RESEARCH DOSES

There's no established human dosing since no human research exists. Animal studies used injections under the skin (not orally or as a pill) at doses that aren't precisely translatable to humans. This is a description of study limitations, not a dosing suggestion.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Bronchogen has a modest but genuine following, especially among people interested in Russian-style bioregulator peptides, discussed on subreddits like r/CosmicNootropic and r/Peptides (Reddit r/CosmicNootropic). Several users specifically report trying it for asthma, COPD, or lung recovery after illnesses like pneumonia or long COVID, often describing subjective improvements like deeper breathing, less coughing, and clearer airways within just a few days. One detailed personal report described using it after quitting smoking to support lung recovery. However, at least one independent reviewer (a YouTube creator specializing in these peptides) explicitly said they do NOT recommend Bronchogen for respiratory health specifically because the human evidence simply isn't there yet, despite the underlying lab science being "elegant" — pointing out that one of the most notable published findings is actually about the peptide making tobacco plants grow faster, not about treating human lungs. Overall sentiment is cautiously curious rather than confidently enthusiastic.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Reported doses online commonly range from about 500 micrograms to 1-2 milligrams per day by injection under the skin, typically used in short cycles of about 10 to 20 days, repeated a few times per year. Oral capsule versions are also discussed, often described as 10 milligrams daily for 10-30 days per cycle. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

IMMUNE / BIOREGULATOR · NO. 55

Cardiogen · No. 55

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
20 mg	$60	$300

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Cardiogen is a tiny, lab-made chain of four amino acids (amino acids are the small building blocks that make up proteins) called AEDR. It isn't found floating around naturally in your blood — scientists in Russia built it as part of a family of "bioregulator" peptides, each one designed to target a specific organ. Cardiogen was designed with the heart in mind (Molecules 2021).

WHAT DOES IT DO?

Nobody has found a "lock" (receptor) on cells that this peptide fits into like a key, which is how most drugs work. Instead, in lab dishes, Cardiogen seems to stick onto DNA and onto proteins called histones (the spools that DNA wraps around inside a cell). The idea is that by attaching to these spots, it might change which genes get turned on or off (Biochemistry (Mosc) 2013). Scientists also think it might be able to sneak into cells using special doorways called transporters (Biomolecules 2023). But the idea that this actually does something useful inside a real, living heart is still just a guess — nobody has proven that chain of events happens in a real body.

WHY ARE RESEARCHERS INTERESTED?

Researchers are curious about Cardiogen mainly for heart health — the idea is that it might help heart tissue repair or function better as people age. That's it; there isn't published evidence connecting it to fat loss, muscle growth, sleep, or the other common peptide-interest areas.

WHAT DO HUMAN STUDIES SHOW?

There are no human studies of Cardiogen at all — none identified in the scientific literature.

ANIMAL RESEARCH

The one animal-related experiment used pieces of heart tissue (not whole living animals) taken from young and old rats and grown in a dish. A very small amount of Cardiogen made those tissue pieces grow more, in both the young and old samples (Adv Gerontol 2006). That's essentially the entire animal evidence base — one tissue-culture experiment.

SIDE EFFECTS

There is no safety data at all — no studies have looked at side effects, allergic reactions, or risks in animals or people. This doesn't mean it's safe; it means nobody has checked.

EXPERIMENTAL RESEARCH DOSES

The only dose on record comes from that heart-tissue-in-a-dish experiment: a very small concentration of 0.05 nanograms per milliliter applied directly to the tissue sample (Adv Gerontol 2006). There is no dosing information for use in a whole animal or a person, and no information on how it would be given (injection, pill, etc.) in a living body.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Cardiogen shows up fairly often in online peptide communities, especially on Reddit forums like r/Peptides, r/PeptideDiscussion, and r/CosmicNootropic. People say they use it for cardiovascular recovery, especially after intense workouts, and some report feeling better during high-intensity training (r/CosmicNootropic). It's often grouped with other Khavinson-style "bioregulator" peptides like Vesugen and used in a rotating stack (r/PeptidesCanada). One user in a heart-health forum thread mentioned it as a possible cardioprotective option alongside SS-31, but this is speculative user opinion, not established science (r/Peptidesource). Vendor blog content (not independent user reports) claims mild fatigue and temporary blood pressure changes as side effects, and describes it as "well tolerated," but these are marketing claims, not clinical findings (Muscle and Brawn). Overall, real community reporting is thin and mostly anecdotal, with people admitting the human evidence is limited.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Online discussions mention doses ranging from about 0.5 mg to 1 mg per day, often taken daily or a few times a week as part of a rotating peptide stack, with cycles lasting around 4-6 weeks a few times a year (r/Retatrutide; Muscle and Brawn). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Chonluten · No. 56

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
20 mg	$96	$480

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Chonluten is a lab-made peptide (a short chain of just three amino acids, called EDG) that was designed to copy a natural substance found in lung and airway tissue. It's part of the same Russian "bioregulator" peptide family as Cardiogen, but this one was aimed at the lungs and bronchial tubes (the airways that carry air to your lungs) (Int J Mol Sci 2022).

WHAT DOES IT DO?

In a lab dish using human immune cells, Chonluten turned on certain internal cell-signaling switches (called ERK1/2, JNK, and STAT1) and calmed down inflammation — it reduced two chemicals (TNF-alpha and IL-6) that cells release when they're irritated by bacteria. It also made immune cells stick less to blood vessel walls, which the researchers think means less inflammation overall (Int J Mol Sci 2022). Think of it like a peptide that might tell overly-alarmed immune cells to calm down — but this was only shown in cells in a dish, not in a living lung.

WHY ARE RESEARCHERS INTERESTED?

The main area of interest is inflammation and, by extension, respiratory/lung health, since that's the tissue it was designed to target and where its anti-inflammatory effects were shown in cell studies.

WHAT DO HUMAN STUDIES SHOW?

There are no human clinical studies of Chonluten — none identified.

ANIMAL RESEARCH

There is no animal research on Chonluten either. All the evidence comes from cells grown in a lab dish (human immune cells and blood vessel cells), not from live animals.

SIDE EFFECTS

No safety studies exist in animals or people. One notable finding from the lab-dish study: Chonluten caused roughly double the amount of cell self-destruction (called apoptosis) compared to four other similar peptides tested alongside it (Int J Mol Sci 2022). It's unclear if this matters in a real body — it could be harmless or could be a signal worth more research, but nobody knows for sure.

EXPERIMENTAL RESEARCH DOSES

The lab-dish study used a concentration of 100 nanograms per milliliter applied directly to cells (Int J Mol Sci 2022). There's no established dose, frequency, or delivery method (like injection or pill) for use in a living animal or human, because that research doesn't exist yet.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Chonluten is discussed in peptide communities, mostly framed around lung and respiratory health, with users mentioning use for chronic bronchitis-like symptoms, smoker's cough, or lingering breathing issues after illness (r/Peptides; r/Peptides). A vendor-affiliated Reddit account also describes it as useful for chronic inflammatory lung conditions like asthma and COPD, but this reads as promotional content rather than independent user testimony (r/Peptides). One user reported an eight-week injectable protocol for lung support as part of a broader 'Khavinson bioregulator' self-experiment (r/Biohackers). Some blog-style posts describe more dramatic brain-fog and CNS-recovery claims, but these read like marketing copy rather than credible independent reports, and should be treated with real skepticism. Overall, genuine independent community discussion is limited and mixed with vendor-generated content.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Reported online doses range from about 100 micrograms to 1 milligram per day, typically injected under the skin, for cycles of 10 to 30 days (r/CosmicNootropic). Pill/capsule versions are also mentioned, at roughly 2 capsules a day for a similar cycle length. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Crystagen · No. 57

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
20 mg	$70	$350

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Crystagen is another lab-made peptide from the same Russian "bioregulator" family, this one linked to the immune system, specifically the thymus (a small organ behind your breastbone that trains immune cells). Oddly, scientists aren't even fully sure of its exact chemical makeup — the actual scientific paper studying it never states its precise amino-acid sequence, and it's missing from the official list published by the same research group. Sellers often claim a specific sequence, but that claim hasn't been verified by scientists (Adv Gerontol 2014; Molecules 2021).

WHAT DOES IT DO?

The only real finding is that Crystagen activated a specific type of immune cell called a B-lymphocyte (a cell that helps make antibodies) in the spleen of aging rats — but interestingly, it did NOT change how fast those cells multiplied or died, which sets it apart from a couple of similar peptides (Adv Gerontol 2014). Beyond that one detail, how it actually works is unknown; it's assumed to work like other peptides in this family (attaching to DNA), but that hasn't been shown specifically for Crystagen.

WHY ARE RESEARCHERS INTERESTED?

The interest area is immune system support — specifically helping the immune system work better as people get older — because that's what the one existing study looked at.

WHAT DO HUMAN STUDIES SHOW?

There are no human studies of Crystagen at all.

ANIMAL RESEARCH

There is exactly one animal study: aging rats' spleen tissue was examined, and it showed the B-lymphocyte activation described above (Adv Gerontol 2014). This is the entire scientific record for Crystagen — there's no other primary research to point to.

SIDE EFFECTS

No safety, toxicity, or side-effect data exists anywhere in the scientific literature. This means genuinely nothing is known about whether it's safe.

EXPERIMENTAL RESEARCH DOSES

No dose, frequency, or administration route is reported anywhere in the scientific literature for Crystagen.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Crystagen (also spelled Kristagen) is discussed in some online peptide spaces, often tied to vendor accounts promoting it as an immune-support supplement for older adults or people fighting off infections (reddit u/peptidebioregulator). It also appears in "anti-aging stack" discussions alongside other bioregulators like Vesugen, Pinealon, and Epitalon (r/PeptidesNootropics). There's a dedicated "Scientific Sean" community page for it, but at the time it was checked, it had zero actual user comments or discussion posted (Scientific Sean). Overall, independent, first-hand user experience reports for Crystagen are minimal — most of what's online is vendor marketing or general educational summaries rather than real people describing personal results.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Various vendor and blog sources mention oral capsule doses of roughly 100-200 mg daily for 10-30 day cycles, or injectable doses of 1-5 mg every other day for 10-20 days, repeated a few times a year — but almost none of this reflects genuine first-person community reporting; it mostly comes from seller websites rather than user forums. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Livagen · No. 58

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
20 mg	$75	$375

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Livagen is a lab-made, four-amino-acid peptide (called KEDA) built to target the liver. It's the "short peptide" version of an older extract-based product, meaning scientists tried to isolate the specific small molecule they believed was doing the useful work in that older, cruder liver extract (Adv Gerontol 2020; Georgian Med News 2014).

WHAT DOES IT DO?

Livagen appears to loosen up tightly-packed DNA inside older cells — imagine DNA normally coiled up like a tightly wound ball of yarn; Livagen seems to help unwind parts of that ball so genes that had gone quiet with age can switch back on (Bull Exp Biol Med 2004; Georgian Med News 2023). Researchers believe this might help liver cells work better and could support the immune system and the body's antioxidant defenses too (Adv Gerontol 2020), but the actual proof of a working liver benefit in real bodies is thin.

WHY ARE RESEARCHERS INTERESTED?

The main areas of interest are liver health and general anti-aging/cell-function support, since that's what the DNA-unwinding studies focused on.

WHAT DO HUMAN STUDIES SHOW?

The "human" data isn't from people taking the peptide — it's from human blood cells taken out of the body and studied in a dish. These lab studies used blood cells from elderly people, breast cancer patients, people with hardened arteries, and people with a heart muscle condition. Across these studies, Livagen appeared to reduce DNA damage markers and improve some chromosome measurements (Georgian Med News 2017; 2014a; 2014b). No study has actually given Livagen to a person and tracked whether they got healthier.

ANIMAL RESEARCH

Claims that Livagen helps protect the liver in animal models of liver scarring and hepatitis appear only as summary statements in a review article, not as data from an actual traceable animal experiment that could be checked (Adv Gerontol 2020). So real, verifiable animal research is essentially missing.

SIDE EFFECTS

No formal safety or toxicity studies exist. There's a theoretical concern worth mentioning: the way Livagen works — by loosening up tightly wound DNA — is the same type of change that, in a related peptide, was linked to more "chromosome breakage events" (a sign of possible DNA instability) (Georgian Med News 2012). This doesn't mean Livagen definitely causes harm, but it's an open question scientists haven't answered.

EXPERIMENTAL RESEARCH DOSES

No systemic (whole-body) dosing information exists — the studies applied Livagen directly onto cells in a lab dish, not into a living body, so there's no established amount, frequency, or delivery method for real-world use.

WHAT IS THE RESEARCH COMMUNITY SAYING?

There is real, first-hand community discussion of Livagen. In one Reddit thread, one user described feeling like it "promotes cellular rejuvenation" and helps with stress resilience, framing it around chromatin activation and support for the body's natural pain-and-stress-regulating (opioid) system (r/Peptides). However, in that same thread, another person reported a serious negative experience — severe anxiety and heart problems that were still ongoing eight months after just twelve days of use (r/Peptides). This is an important, concerning report and should not be minimized — it suggests real risk is possible even though the formal safety data is essentially nonexistent. Other threads pair Livagen with Ovagen for liver support discussions (r/Peptides).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Specific numeric doses were not clearly reported in the community threads found; one user mentioned using it for twelve days before experiencing side effects, but exact amounts were not stated. Community discussion overall is sparse on precise dosing. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Ovagen · No. 59

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
20 mg	$65	$325

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Ovagen is a small, three-amino-acid lab-made peptide (called EDL). Despite a name that sounds like it's about eggs or ovaries, the scientists who made it actually assigned it to kidney cells and liver protection, not reproductive function (Molecules 2021).

WHAT DOES IT DO?

In aging kidney cells grown in a lab dish, Ovagen appeared to bind to DNA and adjust levels of a protein called p53 (a protein that helps control whether cells grow, repair themselves, or self-destruct). This seemed to make old cells act more like young cells — dividing more and showing fewer "aging" markers (Adv Gerontol 2014). Computer models suggest it might slide into a specific groove in the DNA spiral (Adv Gerontol 2014) and possibly get transported into cells via special doorways (Biomolecules 2023).

WHY ARE RESEARCHERS INTERESTED?

The interest areas, based only on what's actually been studied, are kidney cell aging and (as an unconfirmed side claim) liver protection.

WHAT DO HUMAN STUDIES SHOW?

There are no human clinical trials of Ovagen — none identified.

ANIMAL RESEARCH

There is no real animal study either. The liver-protection claim only shows up as a passing mention in a review article written by the same research group, without a traceable original experiment behind it (Molecules 2021). The actual data that exists comes from kidney cells grown in a lab dish, described above.

SIDE EFFECTS

No safety data exists. There's one thing worth flagging: the mechanism involves lowering p53, a protein your body normally uses to stop cells that might turn cancerous — while also making cells divide faster. Scientists haven't studied whether this combination could be risky in a real body; it's an open, unanswered safety question, not a proven danger.

EXPERIMENTAL RESEARCH DOSES

No dose, frequency, or route of administration has been established in real research — the lab-dish study didn't use a systemic (whole-body) dosing approach.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Ovagen has genuine and fairly active discussion in peptide communities, including its own dedicated subreddit. Users there describe it as being used for liver function support, cellular repair, and general detox-related goals, often for conditions like metabolic issues or liver damage (r/Ovagen). A more detailed community write-up frames it as targeting liver and gut lining health, including possibly protecting the gut lining from damage caused by antibiotics or chemotherapy, though the poster is clear this is based on animal/cell studies, not human trials (r/BioLongevityLabs). It also comes up in threads about liver failure and alcohol-related liver support as one option people mention alongside other peptides (r/Peptides; r/peptidebioregulators). Importantly, one community member candidly admitted there isn't much research available beyond a few basic references — a fair and honest caveat (r/Ovagen).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

A community-reported protocol describes 0.2 mL nightly, injected under the skin, for a 20-day cycle, followed by a 3-6 month break before resuming (r/PeptidesCanada). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Pancragen · No. 60

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
20 mg	$60	$300

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Pancragen is a lab-made, four-amino-acid peptide (called KEDW) built to target the pancreas — the organ that makes insulin and controls blood sugar. It's part of the same Russian bioregulator peptide family and was designed with hormone-producing (endocrine) tissue in mind (Adv Gerontol 2014; Molecules 2021).

WHAT DOES IT DO?

Pancragen attaches to a specific spot on DNA found near genes that control pancreas function, and also sticks to histones (the DNA spools mentioned earlier) (Molecules 2021). In pancreas cells grown in a lab, it turned up several genes that help cells become mature, working pancreas cells (Bull Exp Biol Med 2013), and in aging cells it boosted markers linked to cell survival and growth while reducing a cell-aging marker (Adv Gerontol 2012). The overall idea is that it may help pancreas cells work and repair themselves better.

WHY ARE RESEARCHERS INTERESTED?

Pancragen has the strongest interest around diabetes and blood sugar control (an area often broadly called "metabolic health") — this is the best-supported use for any peptide in this Khavinson-style family.

WHAT DO HUMAN STUDIES SHOW?

This is the standout human data point in this group: in a study of 33 elderly people with type 2 diabetes plus 30 healthy older people, Pancragen lowered blood sugar, insulin levels, and insulin resistance in the diabetic group, while the group that didn't receive it showed no change (Bull Exp Biol Med 2011). Important caveat: this was not a rigorous "gold standard" trial — it wasn't randomly assigned or blinded (meaning people knew who got the treatment), and it wasn't registered in any public trial database, so it's promising but not conclusive.

ANIMAL RESEARCH

In elderly female monkeys, daily injections into the muscle for 10 days improved how quickly their bodies cleared sugar from the blood and normalized insulin patterns, with some benefits lasting up to 3 weeks after stopping. Researchers compared its effect to a real diabetes drug (glimepiride) and found Pancragen's effect was real but somewhat smaller and slower (Adv Gerontol 2014; Adv Gerontol 2015). This monkey study is a reasonably strong piece of evidence, even though it's still a small, short study.

SIDE EFFECTS

Researchers in the monkey study called Pancragen "effective and safe," but that study only ran for 10 days and wasn't specifically designed to test safety in depth (Adv Gerontol 2015). Because it lowers blood sugar, there's a theoretical risk of blood sugar dropping too low (hypoglycemia) if combined with diabetes medications — this hasn't been formally studied but makes logical sense given how it works.

EXPERIMENTAL RESEARCH DOSES

In the monkey study, researchers used 50 micrograms per animal per day, injected into the muscle, for 10 days (Adv Gerontol 2014). Human study dosing details and route were not clearly reported in the available summary.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Pancragen comes up in online peptide communities, mostly around pancreas and blood sugar support. In one thread, someone described feeling encouraged by a monkey study showing improved glucose metabolism, and asked how to get it, though another commenter pointed out a naming mix-up between "Pancragen" and a similarly-named but different product called "Pancreagen" (r/Peptides). It's also mentioned in a vendor "new arrivals" post grouped with other Khavinson-style bioregulators (r/CosmicNootropic). Overall, genuine first-hand user experience reports (as opposed to people just asking about it or citing studies) are limited.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Vendor and community-adjacent sources describe intramuscular doses around 0.05 mg per day for cycles of about 10-14 days, closely following the published monkey-study dose (MyPeptideMatch). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Prostamax · No. 61

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
20 mg	$60	$300

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Prostamax is a lab-made, four-amino-acid peptide (called KEDP) designed to target the prostate gland. It's easy to confuse with other similarly-named products (like Prostatilen, an older cow-derived extract, or Cortagen, a different peptide) — these are all separate things (Georgian Med News 2012).

WHAT DOES IT DO?

The clearest documented effect is on chromosomes inside cells: in blood cells from older adults, Prostamax roughly doubled a measurement called "sister-chromatid exchange" (a marker of how DNA strands swap material) and increased another chromosome activity marker, while reducing tightly-packed sections of DNA (Georgian Med News 2012). The researchers interpreted this as "unlocking" genes that had gone quiet with age — but as explained in the side-effects section below, this same change can also be read as a sign of possible DNA instability, so it's genuinely a two-sided finding.

WHY ARE RESEARCHERS INTERESTED?

The main area of interest is prostate health/aging, since that's the tissue it was designed for, though direct evidence of a prostate benefit is very thin.

WHAT DO HUMAN STUDIES SHOW?

There have been no human trials measuring real-world prostate outcomes. The only human-related data is from blood cells taken from elderly people and studied in a lab dish (the chromosome findings above).

ANIMAL RESEARCH

In a lab-dish experiment using pieces of prostate tissue from young and old rats, a small amount of Prostamax made the tissue grow more (Adv Gerontol 2006). There's no study of Prostamax in a disease model like prostate enlargement or infection, and no whole-animal trial tracking real health outcomes.

SIDE EFFECTS

No formal safety studies exist. Worth calling out clearly: the doubling of "sister-chromatid exchange" mentioned above is described by the original researchers as a protective, beneficial effect, but under standard genetic safety science, that kind of measurement is usually seen as a marker of possible genetic instability (a potential red flag), not a good sign. This contradiction hasn't been resolved by any further research, so it should be treated as an open safety question.

EXPERIMENTAL RESEARCH DOSES

The lab-dish prostate tissue study used a very small concentration of 0.05 nanograms per milliliter applied directly onto the tissue sample (Adv Gerontol 2006). No whole-body dose, frequency, or delivery method has been established in real research.

WHAT IS THE RESEARCH COMMUNITY SAYING?

There is real, detailed community discussion of Prostamax on Reddit. One user described running a course after noticing frequent nighttime urination and difficulty with urine flow, and reported feeling significant improvement — sleeping through the night and improved urinary symptoms — though they were also using semaglutide at the same time, which complicates interpreting the cause (r/Peptides). That same user mentioned common community advice to wait about six months before repeating a course, following typical Khavinson-peptide cycling habits, while noting some people run it back-to-back for stronger results (r/Peptides). Overall sentiment in that thread is cautiously positive, but it is a single anecdotal report, not a controlled study.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

A vendor dosing guide describes a concentration of 2 mg/mL, with a common daily dose of about 200 micrograms (10 units on an insulin syringe) for a 10-day course, and recommends monitoring PSA (a prostate blood marker) before each course (MyPeptideMatch). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Thymalin · No. 62

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
10 mg	$60	$300

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Thymalin is different from the other peptides in this batch — it's not one single, defined molecule. It's a mixture of many small proteins extracted from the thymus gland (an immune organ) of baby cows, made using a mild acid process (Int J Immunopharmacol 1997; Int J Mol Sci 2022). Two of its known active ingredients are simpler peptides called Vilon and Thymogen, which scientists were able to isolate out of the Thymalin mixture (Int J Immunopharmacol 1997; Int J Mol Sci 2023).

WHAT DOES IT DO?

Thymalin helps immune cells called T-cells mature and get better at recognizing threats. It changes internal cell signals and boosts certain immune messenger chemicals (Int J Immunopharmacol 1997). In human stem cells (early cells that can become many cell types), it appeared to push cells toward becoming a specific mature immune cell type (Bull Exp Biol Med 2020). Its two active components also calmed down inflammation-related chemicals in immune cells exposed to bacteria (Int J Mol Sci 2023).

WHY ARE RESEARCHERS INTERESTED?

The clear interest area is immune system support, especially in the context of infections. There's also emerging interest tied to inflammation control.

WHAT DO HUMAN STUDIES SHOW?

Thymalin has actual human clinical data, unlike most peptides in this batch. In COVID-19 patients, adding Thymalin to standard treatment sped up improvements in inflammation markers and immune cell counts (Stem Cell Rev Rep 2021). In a larger study comparing standard care, a drug called tocilizumab, and Thymalin in severe COVID-19 patients, the Thymalin group had a notably lower death rate — though there's a confusing inconsistency between different parts of that same published paper (one part says 20.6%, another part of the same paper says 16.2%), which makes it hard to fully trust the exact numbers (Adv Gerontol 2022). Also importantly, none of these studies randomly assigned patients or hid who got which treatment, which are important scientific safeguards that were missing here.

ANIMAL RESEARCH

No animal studies were identified for Thymalin — its supporting evidence comes from human clinical use and lab-dish cell studies (like the stem cell and immune cell work described above), not from animal experiments.

SIDE EFFECTS

No clear side effects were reported in the COVID-19 studies, but those studies weren't specifically designed to look for safety problems (Stem Cell Rev Rep 2021). Since Thymalin comes from animal tissue, it carries a general, not-well-measured risk of allergic/immune reactions and batch-to-batch inconsistency, which is common with tissue-extract products.

EXPERIMENTAL RESEARCH DOSES

The exact dose isn't clearly reported in a standardized way, since Thymalin is a mixture rather than a single pure chemical, which makes precise dosing harder to pin down. It's used by injection in clinical settings.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Thymalin has active, genuine community discussion across multiple Reddit threads. Reports are mixed: several users describe unpleasant flu-like reactions, including nausea, sweating, and daily-changing symptoms during a course, with one person specifically comparing it unfavorably to Thymosin Alpha-1, which caused them no issues (r/Peptides). Another thread described it more as a "subtle wellness" peptide rather than something with dramatic effects (r/PurePeptides). One user combined it with Thymosin Alpha-1 for a full winter season and reported not getting sick since starting, crediting it with restoring immune function after damage from mold exposure (r/Peptides). A headache on day four of one user's course was speculated by another commenter to be a sign the immune system was actively fighting something off, though this is just a guess, not a verified explanation (r/Peptides).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community-reported doses range from about 5 mg to 10 mg per day for roughly 10 to 20 days (r/Peptides; r/Peptides). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

IMMUNE / BIOREGULATOR · NO. 63

Thymosin Alpha-1 · No. 63

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
2 mg	$50	$250
5 mg	$60	$300
10 mg	$70	$350

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Thymosin Alpha-1 (often shortened to TA1 or Tα1) is a naturally occurring, 28-amino-acid piece of protein first discovered because it's the ingredient in thymus tissue that restores immune function in mice whose thymus was surgically removed. Its official drug name is thymalfasin, sold under the brand name Zadaxin (Vitam Horm 2016; DrugBank DB04900). Unlike most peptides in this batch, this one has real, approved medical use in dozens of countries.

WHAT DOES IT DO?

Rather than working through one single "lock and key," Thymosin Alpha-1 nudges many parts of the immune system at once. It switches on immune cells called dendritic cells (the immune system's "scouts" that identify threats) through sensors called Toll-like receptors, which then triggers a cascade of immune activity (Vitam Horm 2016). It also helps infected cells display more "warning flags" on their surface so the immune system can spot and attack infected or abnormal cells more effectively, which is part of why it's sometimes combined with other immune-boosting treatments (Ann N Y Acad Sci 2007).

WHY ARE RESEARCHERS INTERESTED?

This is the best-studied peptide in the whole batch. Main interest areas: immune function support, chronic viral infections (hepatitis B and C), and — more controversially — severe infections like sepsis and COVID-19.

WHAT DO HUMAN STUDIES SHOW?

This peptide has real randomized clinical trials behind it, which is rare in this batch. A combined analysis of 7 trials (over 1,100 patients) with hepatitis-B-related liver scarring found that adding Thymosin Alpha-1 to standard antiviral treatment improved short-term response and lowered side effects compared to the antiviral drug alone — though the extra benefit faded by about a year later (BMC Gastroenterol 2020). However, a large, well-designed, placebo-controlled trial in over 1,100 sepsis patients (a life-threatening blood infection) found it did NOT reduce deaths, and even hinted at possible harm in patients under 60 — a genuinely disappointing and important negative result (BMJ 2025). In COVID-19, a combined analysis of 8 studies found lower death rates with Thymosin Alpha-1, but the studies varied so much from each other that scientists say more rigorous trials are still needed before drawing firm conclusions (Inflammopharmacology 2023).

ANIMAL RESEARCH

In lab animal studies, Thymosin Alpha-1 showed benefits against several cancer types (including lung cancer, leukemia, and melanoma models) and helped fight metastasis (cancer spreading) in combination with other immune-boosting treatments and chemotherapy (Ann N Y Acad Sci 2007).

SIDE EFFECTS

Generally well tolerated: the large sepsis trial found no meaningful difference in side effects compared to placebo (BMJ 2025), and the hepatitis trial actually had fewer side effects than standard treatment alone (BMC Gastroenterol 2020). Animal safety testing found no problems even at doses around 800 times higher than the typical human dose (DrugBank DB04900). One real concern: the sepsis trial found a hint that it might actually be harmful in patients under 60, so this isn't a risk-free peptide despite generally being well tolerated.

EXPERIMENTAL RESEARCH DOSES

The drug's half-life (how long it stays active in the body) is about 2 hours, and it doesn't build up in the body even with repeated doses. It's typically given by injection under the skin or into muscle, commonly as 1.6 mg of powder mixed into liquid per dose (DrugBank DB04900).

WHAT IS THE RESEARCH COMMUNITY SAYING?

Thymosin Alpha-1 has substantial genuine community discussion. Users on Reddit describe using it for autoimmune conditions, reporting feeling meaningfully better after a month of low daily "microdosing," although it took about two weeks to notice effects (r/LOVE4DIYAESTHETICS). One particularly notable post from someone with five years of long-COVID symptoms described a strongly positive response, calling it a "wow" experience after also trying another peptide called KPV (r/covidlonghaulers). Not all reports are positive — some users mention feeling notably worse ("down") for several days after use, and concerns about product quality (cloudy vials, suggesting a possibly degraded or contaminated batch) do come up (r/LOVE4DIYAESTHETICS). It's frequently mentioned as a first-choice option for immune system support in general biohacking discussions (r/Biohackers), and some users stack it with Thymalin for a full immune-support season (r/Peptides).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community reports describe "microdosing" at very low daily amounts (one user mentioned 0.1 mg or less), used consistently over weeks to months for chronic conditions (r/LOVE4DIYAESTHETICS). This is on the lower end compared to the roughly 1.6 mg standard clinical dose described in official drug information (DrugBank DB04900). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Vesugen · No. 64

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
20 mg	$70	$350

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Vesugen (also called Vezugen) is a tiny, lab-made chain of just three amino acids (amino acids are the building blocks of proteins) — Lysine, Glutamic acid, and Aspartic acid, so scientists nickname it "KED." It belongs to a family of very short peptides invented by Russian scientist Vladimir Khavinson and his team, who believed these mini-peptides could 'talk' to genes and help slow down aging in the blood vessels, heart, and brain (Molecules 2021). It's a completely synthetic (man-made), not a natural body hormone.

WHAT DOES IT DO?

Nobody has found a specific 'lock' (receptor) on cells that this peptide plugs into — which is unusual for a drug. Instead, scientists think it sneaks inside cells and attaches itself directly to DNA, flipping certain genes on or off, kind of like nudging a light switch instead of pressing a doorbell (Molecules 2021; Bull Exp Biol Med 2021). In lab dishes with human stem cells, it boosted a growth-related gene (IGF1) several times over and tweaked genes tied to cell aging and stress (Mol Biol Rep 2020). In another lab test it helped nerve-like cells grow more branches (Int J Immunopathol Pharmacol 2019).

WHY ARE RESEARCHERS INTERESTED?

Based on the existing research, people are mainly interested in Vesugen for heart/blood vessel health (improving blood flow) and possibly brain function (memory and attention in older people). These are the only two areas actually backed by the source data — no solid evidence exists yet for fat loss, muscle growth, sleep, or the other categories.

WHAT DO HUMAN STUDIES SHOW?

There's only one real human study, and it wasn't a strong one: 41 men with erectile dysfunction caused by clogged arteries were given Vesugen, and their blood flow in that area improved. But there was no comparison group getting a fake treatment (placebo), so we can't be sure the improvement wasn't just from time passing or expectation (Adv Gerontol 2014). A review paper also mentions that older adults who took it by mouth had better memory and attention, but this claim comes from a summary article, not a traceable, verifiable clinical trial (Bull Exp Biol Med 2021).

ANIMAL RESEARCH

Surprisingly, there is basically no animal research on Vesugen at all. The same 2021 review that discusses it actually says that testing it in animal models of Alzheimer's disease 'seems to be very important' — meaning that as of the writing of that review, it hadn't been done yet (Bull Exp Biol Med 2021). All of the supporting lab work has been done in cell dishes, not in living animals.

SIDE EFFECTS

In the one human study (41 men), no side effects were reported — but that study wasn't designed to specifically look for them, so this isn't strong proof of safety (Adv Gerontol 2014). A review of this type of peptide broadly claims 'no reported side effects,' but that just means nobody has found any yet, not that none exist (Int J Mol Sci 2022). One lab finding is a bit concerning on paper: the peptide boosted a gene (NFκB) tied to inflammation and another (IGF1) tied to cell growth in stem cells — theoretically this could matter for inflammation or unwanted cell growth, but nobody has tested for this in real bodies (Mol Biol Rep 2020).

EXPERIMENTAL RESEARCH DOSES

In the human study on blood flow, the peptide (called Vezugen there) was given as a standalone treatment, but the exact dose amount and injection method used in that paper aren't detailed in the available profile data. Other reports mention it being taken by mouth (orally) in clinical/review write-ups. This is purely descriptive of what has been studied — not a suggestion for use (Bull Exp Biol Med 2021).

WHAT IS THE RESEARCH COMMUNITY SAYING?

Online chatter about Vesugen is limited but does exist, mostly on Reddit peptide forums. One person tried a nasal spray version hoping to help with heart/blood flow and mild erectile issues but reported no noticeable effect at all, despite generally liking other bioregulator peptides — they planned to switch to an injectable version next (r/PeptideDiscussion). A more concerning report came from someone who took an oral capsule version for five days: they described feeling physically weak, foggy-headed, irritable, and depressed — symptoms that got worse rather than better, and lingered for weeks after stopping (r/Peptides). Overall, real-world reports are sparse, mixed, and at least one is worrying — this lines up with how little solid science exists behind this peptide.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community reports mention a nasal spray at 2 mg/mL concentration and oral capsules taken twice a day for five days, but people did not report a consistent, agreed-upon 'standard' dose the way they do for more popular peptides. There isn't enough public discussion to identify a lowest, most common, and highest dose with any confidence. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Vilon · No. 65

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
20 mg	$75	$375

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Vilon is a lab-made peptide made of just two amino acids — Lysine and Glutamic acid, nicknamed "KE." It's part of the same Russian-designed bioregulator peptide family as Vesugen, created to mimic and simplify what's found in a thymus (a small immune-system gland) extract called Thymalin (Int J Immunopharmacol 1997; Int J Mol Sci 2022). In fact, KE is literally one of the two active ingredients inside that thymus extract, so Vilon can be thought of as taking one useful piece out of a natural extract and making it in pure, synthetic form.

WHAT DOES IT DO?

Vilon appears to work on the immune system by helping young immune cells called T-cells mature properly and by boosting infection-fighting cells like neutrophils (Int J Immunopharmacol 1997). Like its cousin Vesugen, it also seems to slip into the cell nucleus and directly grab onto DNA, turning about three dozen genes up or down (Molecules 2021; Int J Mol Sci 2023). In lab tests with human stem cells, it boosted a 'longevity gene' called SIRT1 by 6 to 8 times in younger cells (Adv Gerontol 2023), and in immune cells it calmed down inflammation signals (Int J Mol Sci 2022).

WHY ARE RESEARCHERS INTERESTED?

Based on the source data, researchers are interested in Vilon mainly for immune function (helping older or weakened immune systems work better) and longevity (a mouse study found it extended lifespan and reduced tumor growth). There's also some interest in inflammation, since it calmed inflammatory signals in immune cell experiments.

WHAT DO HUMAN STUDIES SHOW?

Human evidence here is thin and low-quality. One report describes adding Vilon to standard cancer treatment for elderly patients with advanced colorectal cancer — the authors say it may help patients survive longer and have fewer complications, but they themselves call it early, preliminary work, not a real controlled trial (Adv Gerontol 2005). Lab tests done directly on blood cells taken from elderly people (aged 75-88) showed changes suggesting more active gene expression (Bull Exp Biol Med 2004; Georgian Med News 2023). Despite being the most-studied peptide in this whole family, there is still no properly controlled human trial (the gold-standard kind with a placebo group and random assignment).

ANIMAL RESEARCH

The single most talked-about finding for Vilon comes from mice: long-term dosing increased how long the mice lived and slowed down spontaneous tumor growth (Dokl Biol Sci 2000). This is an exciting result, but it was published as a short report without full details, and — importantly — no other independent lab has repeated and confirmed it.

SIDE EFFECTS

No formal safety testing (the kind that specifically counts side effects) has been published for Vilon. The mouse lifespan study didn't report any toxicity from long-term dosing (Dokl Biol Sci 2000). In lab dish tests, Vilon caused the least disruption to a cell-signaling pathway (ERK1/2) compared to four other similar peptides, and researchers didn't see any problems with how cells divided (Int J Mol Sci 2022). On paper, there are theoretical concerns — since it can rev up immune activity, it could plausibly be risky for someone with an autoimmune disease — but this hasn't actually been studied.

EXPERIMENTAL RESEARCH DOSES

Existing profile data doesn't give a specific studied human dose amount — it notes that both injectable (parenteral) and nasal (intranasal) routes appear in the older Russian-language literature, but exact numbers, frequency, and study length aren't spelled out in the available source. No dosing information here should be read as a suggestion for use.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Vilon shows up fairly often in peptide forums, generally with cautiously positive but modest reports. On a Reddit thread asking about Vilon after two months of use, one user under medical guidance reported slightly better sleep and feeling calmer, but called the changes "minor, not dramatic" (r/PurePeptides). Another post said Vilon "definitely helps me sleep" when used at night (r/BodyHackGuide). In a peptide-combination story, someone using Vilon alongside BPC-157 and KPV for gut and immune issues (branded as "Gut Feeling") reported their mast cell activation symptoms went into remission, though it's impossible to say Vilon specifically caused that since multiple peptides were combined (r/HistamineIntolerance). Others in the chronic-fatigue/long-COVID community paired Vilon with VIP and reported meaningful, if temporary, symptom relief (r/covidlonghaulers). A recovery-focused post claimed reduced muscle soreness after workouts (r/PeptideDiscussion). Overall, the tone across the community is that Vilon is seen as gentle, low-drama, and modestly helpful for sleep, calm, and recovery — nobody describes dramatic transformations.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community-discussed doses ranged quite widely. Some forum users reported doses as low as 250-500 mcg per day, while a commonly repeated online protocol calls for 1 mg daily for 10-20 days, cycled a few times a year. On the higher end, some sources describe 5-10 mg subcutaneous doses daily for 5-10 days per cycle, and oral capsule guides mention up to 10-20 mg daily for 10-20 day cycles. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

SECTION 06

General Research

7
COMPOUNDS

Peptides studied across several different research areas, included for their broad relevance to peptide science.

ARA-290 · No. 66

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
10 mg	$60	$300

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

ARA-290 (medical name: cibinetide) is an 11-amino-acid peptide engineered to copy a small, useful piece of a natural hormone called erythropoietin (EPO) — the same hormone that tells your body to make red blood cells. Scientists designed ARA-290 to keep EPO's helpful tissue-protecting effects while removing the part that boosts red blood cells (which can be risky) (Heij et al., Mol Med 2012; Brines et al., Mol Med 2015). It's man-made and doesn't occur naturally in this exact form in the body.

WHAT DOES IT DO?

Imagine your body has a special repair switch called the Innate Repair Receptor. ARA-290 flips that switch on. When activated, this switch calms down inflammation and helps damaged tissue repair itself — all without touching the red-blood-cell-boosting pathway (Heij et al. 2012). In animal studies, it reduced pain sensitivity from nerve damage and helped small nerve fibers regrow.

WHY ARE RESEARCHERS INTERESTED?

Based on the source data, the main areas of interest are: nerve-related pain relief (specifically small-fiber neuropathy, a type of nerve damage causing burning/tingling pain), and inflammation. There's also some interest tied to diabetes, since one trial looked at blood sugar control (HbA1c) alongside nerve symptoms.

WHAT DO HUMAN STUDIES SHOW?

Two small but real clinical trials exist. In the first, 22 people with sarcoidosis-related nerve damage (small fiber neuropathy) got either ARA-290 or a placebo through an IV for 4 weeks; the treated group showed meaningful improvement on a nerve-symptom questionnaire, but pain and fatigue scores improved about equally in both groups — meaning it didn't clearly beat placebo on those specific measures (Heij et al. 2012). The second trial, in 48 people with type 2 diabetes, gave daily shots for 28 days and found modest improvements in blood sugar control (HbA1c), pain scores, and triglycerides, plus improved nerve fiber density — but only in a specific subgroup, not across everyone (Brines et al. 2015). Both studies are small and haven't been confirmed by larger trials.

ANIMAL RESEARCH

In rodent studies, ARA-290 reduced pain hypersensitivity (called allodynia, where normally painless touch feels painful) and reversed nerve damage related to diabetes (Heij et al. 2012). This preclinical animal work is what originally supported moving into human testing.

SIDE EFFECTS

The good news: both human trials found no real safety concerns. Blood counts, liver, kidney, and pancreas tests stayed normal, and there was no unwanted immune reaction to the drug (Brines et al. 2015). However, in the diabetes trial, two serious problems came up in people taking ARA-290: one person's kidney function briefly worsened (they were also on a strong diuretic medication), and one person died of a heart attack two weeks after finishing treatment, though doctors judged this was unrelated to the drug. Long-term safety over months or years is not known.

EXPERIMENTAL RESEARCH DOSES

In the sarcoidosis nerve-pain study, people received 2 mg through an IV, three times a week for 4 weeks (Heij et al. 2012). In the diabetes study, people gave themselves 4 mg as a shot under the skin (subcutaneous), once daily for 28 days (Brines et al. 2015). This is purely a description of what was tested in research — not a usage recommendation.

WHAT IS THE RESEARCH COMMUNITY SAYING?

ARA-290 has an active following on Reddit, especially among people dealing with nerve pain (small fiber neuropathy). Reports are largely positive but mixed. One detailed post described following the exact clinical trial protocol (4 mg/day for 28 days) and noticing real improvement in nerve symptoms after about 12 days, with no side effects, though the main complaint was the high cost — around $600-700/month (r/smallfiberneuropathy). Another long-term user combined it with intense triathlon training and reported less inflammation, better sleep, digestion, and reduced workout soreness over four months (r/Biohackers). Not everyone benefits though — one person reported 14 days in with zero relief for their neuropathy (PeptiRank), and someone with a different nerve condition (erythromelalgia) said it had no effect on their symptoms (r/Erythromelalgia). A frequent theme is that benefits often fade within weeks after stopping, and cost is consistently cited as the biggest downside.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community-reported doses ranged from as low as 0.5-2 mg per day up to 8 mg per day, with 4 mg per day subcutaneously being the most commonly cited amount, closely matching what was used in the actual clinical trials. Some people started low (0.5-2 mg) and titrated up to 4 mg over the first week. A few reported going higher, to 8 mg/day, without extra benefit and at higher cost. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Epithalon · No. 67

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
10 mg	$45	$225
40 mg	$65	$325
50 mg	$70	$350

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Epithalon (also spelled Epitalon) is a short, 4-amino-acid, lab-made peptide with the sequence Ala-Glu-Asp-Gly, nicknamed "AEDG." It was designed to copy the amino acid makeup of a natural pineal gland extract called Epithalamin (the pineal gland is a small brain structure that helps regulate sleep). It was later found to occur naturally, in small amounts, in a pineal gland protein mixture (Araj et al., Int J Mol Sci 2025).

WHAT DOES IT DO?

Scientists haven't found the exact 'switch' this peptide flips inside cells — its true mechanism is still unverified. The leading idea is that it slips inside the cell's control center (the nucleus) and directly touches DNA, possibly turning on a gene involved in making telomerase, an enzyme that helps protect the caps on the ends of chromosomes (called telomeres) which naturally shorten as we age (Araj et al. 2025).

WHY ARE RESEARCHERS INTERESTED?

Based on the source data, the main interest areas are longevity (via telomere and aging research) and sleep (via effects on melatonin, the sleep hormone). There's also a small strand of research into eye health from an older study on vision problems.

WHAT DO HUMAN STUDIES SHOW?

Only two human studies are described in detail in the available research. One gave 162 patients with a vision disease (retinitis pigmentosa) small injections near the eye for 10 days and reported improved vision and wider field of view in most patients. The other gave 75 women a small daily dose under the tongue for 20 days and found changes in melatonin-related markers and certain sleep-related genes. Neither study gives enough detail about how carefully it was designed (was there a placebo? was it randomized?) to fully trust the results (Araj et al. 2025).

ANIMAL RESEARCH

There is a decent amount of animal and cell research. In human cells grown in a lab, the peptide lengthened telomeres by an average of 33% in some tests — though results were inconsistent, with a few showing no change or even a decrease. It also let skin cells (fibroblasts) divide more times before wearing out. Some rodent studies found it protected kidneys and lowered tumor rates, but another rodent study found no effect on tumors at all — so the animal evidence is mixed, not uniformly positive.

SIDE EFFECTS

This is a big gap in the research: the review paper openly states that basic safety testing — checking for short and long-term toxicity, effects on genes/DNA, cancer risk, and interactions with food or other drugs — simply hasn't been done yet. No one has established a maximum safe dose. In the eye study, no side effects were reported, and in rat studies no kidney damage was seen (Araj et al. 2025). There's also a real practical risk: lab testing of suspected fake/illegal Epithalon products found some were actually a different, similar-sounding peptide instead.

EXPERIMENTAL RESEARCH DOSES

Reported routes across different studies include shots under the skin, into muscle, into the abdomen, nasal sprays, oral, under the tongue, and injections near the eye. The eye study used a very small amount (5 micrograms per eye) for 10 days; the melatonin study used 0.5 mg per day under the tongue for 20 days. This is purely descriptive of studies that have been done — not a recommendation to use these amounts.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Epithalon has a large, enthusiastic community following, especially in longevity and biohacking circles, mostly discussing sleep improvement. Many Reddit users report noticeably better sleep quality within one to two weeks of starting a cycle, often describing it as one of their favorite peptides for that purpose (r/Peptides). One person combined a personal telomere test before and after a 12-week self-experiment and reported their telomeres appeared longer afterward, though they noted they "felt exactly the same" despite the lab number changing (r/Nootropics). Not everyone notices anything: some users report no effect at all on sleep or appearance. A repeated concern in forums is dosing — many posts argue that older Russian protocols recommending 5-10 mg/day are too high, and that lower doses (100-500 mcg) may be just as effective with less risk of side effects like a racing heart during exercise or sleep disruption (r/Peptidesource; r/BiohackingU). There is also a theoretical worry discussed in forums that lengthening telomeres too aggressively without taking breaks could theoretically raise cancer risk, though actual research on this specific concern in humans doesn't exist.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Reported community doses vary widely. On the low end, some users take as little as 100-300 mcg per day. The most commonly discussed range is 500 mcg to 5 mg per day, typically for 10-20 day cycles repeated once or twice a year. On the high end, some older-style protocols use up to 10 mg per day for 10-20 days, though many recent forum posters argue this is unnecessarily high. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

FOXO4-DRI · No. 68

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
10 mg	$200	$1,000

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

FOXO4-DRI (sometimes called proxofim) is a lab-made peptide built by fusing a piece of a natural protein called FOXO4 to a special "delivery tag" borrowed from the HIV virus that helps it get inside cells (Baar et al., Cell 2017). It's specifically engineered to target and destroy "senescent" cells — these are old, damaged cells that have stopped dividing but refuse to die, sometimes called "zombie cells," which build up as we age and cause inflammation.

WHAT DOES IT DO?

Normally, zombie cells survive because a protein called FOXO4 grabs onto another protein called p53 (which usually tells damaged cells to self-destruct) and holds it hostage inside the cell, preventing it from doing its job. FOXO4-DRI works by cutting in line — it competes with the real FOXO4 and steals p53 away, freeing it up to do what it's supposed to do: trigger the zombie cell to self-destruct through a process called apoptosis (programmed cell death) (Baar et al. 2017; Krimpenfort & Berns, Cell 2017).

WHY ARE RESEARCHERS INTERESTED?

Based on the source data, the main interest is longevity/anti-aging, since it selectively removes aged "zombie" cells that contribute to tissue decline. There's also interest tied to reducing chemotherapy-related side effects (like hair thinning and weight loss caused by cancer drugs), since mouse studies showed benefit there too.

WHAT DO HUMAN STUDIES SHOW?

There are zero human studies of any kind. No clinical trials have ever tested this peptide in people.

ANIMAL RESEARCH

All the existing evidence comes from mice. The peptide selectively killed aged/damaged cells nearly 12 times more than healthy cells in lab dish tests. In mice, it reversed weight loss and liver damage caused by chemotherapy, and in naturally aging mice and a fast-aging mouse strain, it restored fur thickness, made mice more responsive to stimuli, increased their activity on a running wheel, and improved several kidney health markers (Baar et al. 2017). Any talk of human "rejuvenation" is purely a guess based on these mouse results — there's no human data to back it up yet.

SIDE EFFECTS

In mice, the peptide seemed well tolerated over the tested time periods — no notable changes in blood counts after 30 days, no visible heart tissue damage, and no meaningful change in body or kidney weight. It also didn't make healthy cells more vulnerable to chemo-related DNA damage. However, the scientists who ran this study explicitly said a much more thorough safety check is still needed before drawing real conclusions (Baar et al. 2017). Since this peptide works by triggering a broad cell-death program, there are theoretical worries about unwanted effects on healthy tissue, immune reactions to the HIV-derived delivery tag, and effects on wound healing — none of which have been tested in humans.

EXPERIMENTAL RESEARCH DOSES

In the mouse studies, the peptide was given as an injection into a vein or into the abdominal cavity, at a dose of 5 mg per kilogram of body weight, given three times, every other day (Baar et al. 2017). This is animal research data only — there is no human dosing information, and this should not be read as usage guidance.

WHAT IS THE RESEARCH COMMUNITY SAYING?

FOXO4-DRI has a small but dedicated following in longevity/biohacking circles, often discussed as "the only senolytic (zombie-cell killer) practically available" as a research chemical. One detailed Reddit post described a self-designed protocol of 20 mg every other day for a total of 140 mg per year, calculated by scaling the mouse dose up to human body size, and listed possible side effects like fatigue and nausea, while noting explicitly that there are zero human clinical trials and only one mouse in-vivo study to go on (r/BodyHackGuide). Given how new and niche this compound is, broader community discussion (detailed personal experience reports with before/after results) is minimal or absent compared to more popular peptides.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

The main community-discussed protocol found totals roughly 140 mg per year, given as 20 mg doses every other day, based on scaling up the mouse research dose to an estimated human-equivalent amount (around 25-30 mg per dose, sometimes rounded to 20 mg in practice). There isn't enough additional public discussion to identify a clear range of lowest-to-highest doses beyond this one commonly cited protocol. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

GHK · No. 69

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
50 mg	$60	$300

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

GHK (glycyl-L-histidyl-L-lysine) is a naturally occurring 3-amino-acid peptide that your own body already makes — it's found in the main protein of your skin and connective tissue (type I collagen). When paired with copper, it's called GHK-Cu, sometimes labeled "copper peptide" or "copper tripeptide-1" on skincare products (Pickart & Margolina, Int J Mol Sci 2018). Interestingly, the amount of GHK naturally in your blood drops by more than half between age 20 and age 60 (Dou et al., Aging Pathobiol Ther 2020).

WHAT DOES IT DO?

GHK doesn't act through a typical 'lock and key' receptor system. Instead, it grabs onto copper atoms extremely tightly and delivers them to enzymes in your body that need copper to function — including ones involved in making collagen (the protein that keeps skin firm) and fighting off damaging molecules called free radicals. It boosts production of collagen and elastin (the proteins that give skin structure and stretchiness), and it calms down certain inflammation signals (Pickart & Margolina 2018).

WHY ARE RESEARCHERS INTERESTED?

Based on the source data, the main interest area is skin health (wrinkle reduction, skin thickness, collagen production) — this is by far the best-studied use. There's also emerging but much less certain interest in areas like wound healing and general anti-aging/inflammation, based on animal studies.

WHAT DO HUMAN STUDIES SHOW?

The human evidence is solid for skin, but only for skin applied topically (as a cream), not for systemic (whole-body) use. In 12-week studies with facial creams, women with sun-damaged skin saw increased skin thickness and reduced wrinkle depth. A comparison study found GHK-Cu improved collagen in 70% of users, beating out both vitamin C (50%) and retinoic acid (40%). Another controlled trial found it reduced wrinkle volume more than a comparison ingredient over 8 weeks (Pickart & Margolina 2018). Note: no human trials exist for injectable or systemic uses.

ANIMAL RESEARCH

In animal studies, GHK-Cu has sped up wound healing, encouraged new blood vessel growth, and helped regenerate cut nerves in rats. It also showed some anti-tumor and calming (anti-anxiety) effects in rodents at very small doses. These animal findings are promising but haven't been confirmed with human trials for these particular uses.

SIDE EFFECTS

Decades of use in cosmetic skin creams haven't turned up reported problems, but there's no formal safety study tracking things like long-term organ effects, safety during pregnancy, or drug interactions. One thing worth knowing: people with a rare condition called Wilson disease (a copper-processing disorder) should be extra cautious, since GHK is a copper-delivery molecule and its safety hasn't been studied in that group. It's also worth noting that some of the main scientists behind the key research have a financial connection to GHK-Cu skincare companies, which is a relevant bias to be aware of (Pickart & Margolina 2018).

EXPERIMENTAL RESEARCH DOSES

All human research on GHK has used it topically (applied to skin as a cream), typically for 8-12 weeks, applied once or twice daily. No systemic (injected or oral) human dosing data exists. This is descriptive of published research only, not a usage suggestion.

WHAT IS THE RESEARCH COMMUNITY SAYING?

GHK-Cu is extremely popular in skincare communities, where it's widely discussed as an ingredient that genuinely improves fine lines and skin texture over time (r/SkincareAddiction). Beyond skincare, a growing peptide community discusses injectable GHK-Cu, often blended with other peptides like BPC-157 and TB-500 for general recovery and skin benefits, using online "peptide calculators" to work out doses from combination vials. People report feeling their forehead lines look better and their skin is more supple after consistent topical or injected use. Discussion around injectable use tends to be more cautious about total GHK-Cu amount, with several commenters mentioning protocols advise staying under roughly 2-3 mg per day when injected.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

For topical use, standard skincare products already contain a small, low percentage of GHK-Cu, applied once or twice daily. For injectable/community use (which has no clinical backing), forum posters commonly discuss doses in the 1-4 mg per day range, with many recommending staying at or below about 2-3 mg per day. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

N-Acetyl Epitalon Amidate · No. 70

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
5 mg	$60	$300

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

N-Acetyl Epitalon Amidate is a chemically modified version of Epithalon (the sleep/longevity peptide described above), with small extra chemical groups added to both ends of the molecule. It's meant to be a "stabilized" version of the original 4-amino-acid AEDG peptide. Importantly, when scientists searched the peer-reviewed medical literature specifically for this exact modified molecule, they found zero published studies — nothing exists in the scientific record about it specifically (PubMed search).

WHAT DOES IT DO?

Since there's no research on this exact molecule, everything we can say is borrowed from the unmodified parent peptide, Epithalon — whose own mechanism is still not fully confirmed by scientists (see the Epithalon profile above for its proposed DNA-interaction idea). The theory behind adding these chemical caps is that they might make the peptide harder for the body's enzymes to break down, letting it last longer in the body. However, the same scientific review that covers this peptide family specifically lists testing these chemical modifications as something that still needs to be studied — meaning the durability benefit is a guess, not a proven fact (Araj et al. 2025).

WHY ARE RESEARCHERS INTERESTED?

Because there is no dedicated research on this specific molecule, any interest is entirely borrowed from Epithalon, the parent peptide — meaning longevity and sleep are the areas people hope this might help with, purely by inference, not because of any direct evidence.

WHAT DO HUMAN STUDIES SHOW?

None exist for this specific compound. Zero human trials have tested N-Acetyl Epitalon Amidate itself.

ANIMAL RESEARCH

None exist for this specific compound either. No animal or preclinical studies have been identified for this particular modified molecule.

SIDE EFFECTS

There is no safety data of any kind — no toxicity testing, no studies on genetic effects, no cancer-risk studies, no data on immune reactions — for this specific compound. Notably, even the parent peptide Epithalon is missing this same safety information, so this modified version is doubly unstudied (Araj et al. 2025). Just because no harm has been reported doesn't mean it's safe — it simply hasn't been checked. There's also a real-world quality-control risk: lab testing of some Epithalon-labeled products has found they were substituted with a different, similarly-named peptide.

EXPERIMENTAL RESEARCH DOSES

Not established in any published literature — there is no human or animal pharmacology data at all specific to this compound, so there's nothing from formal research to report here.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Unlike the parent peptide Epithalon, N-Acetyl Epitalon Amidate has an active, long-running discussion history in nootropics/biohacking forums going back over a decade. Self-experimenters describe mixed results: one long-time user reported improved skin suppleness and better digestion of a wider variety of foods after 100 mg total, cycled over time, though they noted the substance had low solubility and was hard to inject (r/Nootropics). Another detailed report described feeling calmer and less anxious, along with more physical energy and clearer skin, but also noted an unwanted side effect of "emotional numbing" — reduced ability to feel excited or happy (r/Nootropics). A separate long-term self-experimenter who tracked telomere length before and after several 10-day cycles reported longer telomeres on lab testing but no noticeable change in how they actually felt day to day (r/Nootropics). Reported side effects across posts include nausea, decreased appetite, vivid dreams, and mild stomach upset. A commonly repeated practical complaint is that this modified version doesn't dissolve well in water and can look cloudy or clog needles when injected.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community-reported doses ranged from roughly 1.25 mg to 10 mg per day, with 3-5 mg per day being fairly commonly mentioned, typically used for 8-10 day cycles. Some users started high (5-10 mg) and reduced the dose after noticing unwanted effects like hunger crashes or emotional numbing. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

PNC-27 · No. 71

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
5 mg	$50	$250
10 mg	$65	$325

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

PNC-27 is a lab-made peptide built by fusing two pieces together: a small segment of a natural tumor-suppressor protein called p53 (the part that normally binds to another protein, HDM-2/MDM2), attached to a separate 17-amino-acid piece that helps the whole thing stick to and get into cell membranes (Sarafraz-Yazdi et al., Int J Mol Sci 2022). It was specifically designed as an experimental anti-cancer compound.

WHAT DOES IT DO?

Here's the clever trick: many cancer cells display an unusual amount of a protein called HDM-2 right on their outer surface (membrane), while healthy cells generally don't. PNC-27 is built to specifically dock onto that surface HDM-2. Once several PNC-27 molecules gather at the same spot on a cancer cell's membrane, they poke a hole (pore) straight through it, causing the cell to rapidly die through a messy process called necrosis (different from the cleaner, more controlled cell-death process called apoptosis). Because healthy cells don't display HDM-2 on their surface the same way, they're mostly left alone (Sarafraz-Yazdi et al. 2022; Do et al., PNAS 2010).

WHY ARE RESEARCHERS INTERESTED?

Based on the source data, the sole area of research interest is cancer-cell killing (an experimental anti-cancer approach). This is not connected to fat loss, muscle growth, sleep, or any other wellness category — it is purely an oncology (cancer) research compound.

WHAT DO HUMAN STUDIES SHOW?

There are absolutely no human clinical trials of PNC-27. A search of the official clinical trials registry turned up zero registered studies for this compound.

ANIMAL RESEARCH

This is a notable gap: while PNC-27 has strong lab-dish (in vitro) evidence, the key mechanistic research paper reports no new animal experiment for PNC-27 itself. The animal tumor-shrinking data that sometimes gets attributed to this peptide actually comes from a related but different peptide called PNC-28, not PNC-27 itself. So as of the source data, there is no confirmed live-animal evidence specifically for PNC-27.

SIDE EFFECTS

There is no human safety data at all — no reports on tolerability or immune reactions. There's also no formal animal toxicity data, so no one has established a safe dose range or a ratio of benefit-to-harm (therapeutic index). Since this peptide works by poking holes in cell membranes, there's a real theoretical risk of it damaging red blood cells (hemolysis), causing reactions during infusion, or causing a "tumor lysis"-type reaction if it kills a lot of cancer cells quickly — none of these risks have actually been measured in any study. It's also worth knowing that some of the key scientists behind this peptide's research hold patents related to it, a relevant conflict of interest.

EXPERIMENTAL RESEARCH DOSES

There is no established route, dose, or timing information from real pharmacology research — everything published so far is lab-dish (in vitro) work using direct exposure of cells to the peptide, not a therapeutic dosing schedule in a living body (Sarafraz-Yazdi et al. 2022).

WHAT IS THE RESEARCH COMMUNITY SAYING?

PNC-27 has a small but serious community of people using it for personal or family cancer concerns, mostly on Reddit's peptide forums, described by one specialized site as "oncology-adjacent, not biohacking" (Biomogging). One detailed post described injecting it alongside another immune peptide for a jawbone growth that reportedly shrank, but also mentioned an unusual number of nosebleeds while using it, which they attributed to possible effects on nearby blood vessels (r/Peptides). Another person described using it for a family member with stage IV cancer over 8 weeks with gradually increasing doses, but scans showing stability were confounded by a new cancer drug started around the same time, making it impossible to know what actually helped (r/Peptides). There's also an account of using it for a dog with leukemia under a veterinary oncologist's care (r/Peptides). Because it acts fast and clears the body quickly, community sources note there's no felt "drug effect" — people can't tell if it's working just by how they feel, and most personal reports involve serious illness rather than casual experimentation, making the overall body of community discussion sparse and hard to interpret compared to more mainstream peptides.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community-discussed doses vary enormously, from very low (100-300 mcg per day, gradually increased) up to much higher amounts (10-20 mg per day, split into 2-3 injections). A frequently mentioned mid-range is roughly 5-10 mg per day, often split into multiple smaller shots because the peptide clears from the body quickly (within about 30 minutes). Course lengths discussed range from 1-2 weeks up to 3-4 weeks, sometimes repeated monthly. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

VIP · No. 72

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
5 mg	$60	$300
10 mg	$85	$425

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

VIP, short for Vasoactive Intestinal Peptide, is a 28-amino-acid peptide your body already makes naturally — it's not something invented in a lab from scratch. The man-made, purified drug version of it is called aviptadil (brand names Zyesami or RLF-100) (UniProt P01282). It belongs to a family of natural signaling molecules related to other gut/hormone peptides like glucagon.

WHAT DOES IT DO?

VIP works by attaching to two related "docking stations" (receptors) called VPAC1 and VPAC2, found in your lungs, gut, immune cells, and blood vessels. When it attaches, it triggers effects like widening blood vessels (dropping blood pressure), relaxing airway muscles (helping you breathe easier), and calming down immune system overactivity (Mathioudakis et al.). It's actually about 100 times more powerful at relaxing airways than a common asthma medication, and about 50 times more powerful than a well-known blood-vessel-widening drug.

WHY ARE RESEARCHERS INTERESTED?

Based on the source data, the main areas researchers have studied are: breathing/lung conditions (like severe COVID-19 lung failure and sarcoidosis-related lung disease), and — separately, as an approved use — erectile dysfunction (combined with another drug). There's also community interest in inflammation-related "mold illness" (chronic inflammatory response syndrome), though this specific use has much weaker scientific backing than the lung research.

WHAT DO HUMAN STUDIES SHOW?

The most important human study is also a negative result: a large, well-designed trial (called TESICO) tested IV aviptadil in critically ill COVID-19 patients and found it did NOT improve outcomes or survival compared to placebo — the trial was actually stopped early because it clearly wasn't working (TESICO, Lancet Respir Med 2023). On the positive side, VIP combined with another drug (as "Invicorp") is an approved treatment for erectile dysfunction in parts of Europe (Invicorp SmPC). Smaller, less rigorous studies have looked at inhaled VIP for lung blood pressure problems and for calming immune overactivity in a lung disease called sarcoidosis, with some encouraging but preliminary results.

ANIMAL RESEARCH

This information isn't detailed as a separate category in the source data — the profile focuses primarily on human clinical and physiological findings rather than distinct animal studies.

SIDE EFFECTS

Because VIP powerfully widens blood vessels, common side effects include flushing (skin redness/warmth), headache, dizziness, and a racing heart. For the erectile dysfunction combination drug specifically, there's a risk of an erection lasting too long (priapism), which is why it's not recommended for certain blood disorders or for people on blood thinners (Invicorp SmPC). In the large COVID-19 trial, a combined safety measure occurred somewhat more often in the treatment group than placebo, though this difference wasn't statistically strong enough to be certain it was a real effect. Low blood pressure and diarrhea are known to limit how much can be given.

EXPERIMENTAL RESEARCH DOSES

In the large COVID-19 trial, aviptadil was given through an IV. Human research on plasma levels shows the peptide disappears from the bloodstream extremely fast, with a half-life (time for half of it to clear) of only about 1 minute, meaning it doesn't stay in the body long (Domschke et al. 1978). For the approved erectile dysfunction use, it's given as a very small injection (25 micrograms combined with another drug) directly into the treatment area. This is purely descriptive of research and approved medical use, not a general recommendation.

WHAT IS THE RESEARCH COMMUNITY SAYING?

VIP's community discussion is concentrated almost entirely in mold-illness and chronic fatigue forums (like r/CIRS and r/covidlonghaulers) rather than mainstream peptide/biohacking spaces, since it's the final step of a specific medical protocol (the Shoemaker protocol) for people recovering from suspected toxic mold exposure (Molecular Reference). Users describe using a highly diluted nasal spray form (called "VIP 1:1000") to gently activate their body's VIP receptor before eventually moving to a stronger, undiluted version, with warnings that jumping straight to the strong version too early can make people feel worse if they still have unresolved inflammation (r/CIRS). Some users in chronic fatigue/long-COVID communities report significant, sustained symptom relief lasting months when combining VIP nasal spray with Vilon (r/covidlonghaulers), though the community broadly acknowledges this treatment has only helped about a quarter of the people who try it, and effects often don't last. Cost is a frequently mentioned frustration, since compounded prescription versions can be expensive and aren't always covered by insurance.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community protocols for the mold-illness/CIRS use typically start with a heavily diluted nasal spray (often referred to as "1:1000" dilution) before progressing, after clearing other steps of a longer protocol, to a stronger "1:1" strength nasal spray. In the chronic fatigue/long-COVID community, reported doses ranged from very low (50 mcg, up to 4 times daily) down to a more tolerable 50 mcg twice daily, with some users using around 1 mg per day and adjusting down to 250-500 mcg to balance benefits against side effects. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

SECTION 07

Hormonal / Reproductive

7
COMPOUNDS

Peptide and protein hormones studied for their role in reproduction and hormone-signaling research.

Gonadorelin Acetate · No. 73

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
2 mg	$35	$175

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Gonadorelin is a lab-made copy of a hormone your brain already makes called GnRH (gonadotropin-releasing hormone) — basically a chemical message that tells a gland in your brain (the pituitary) to release other hormones. It's a chain of 10 amino acids (the building blocks of proteins), and it's been made into medicines sold under names like Factrel and Lutrepulse (PubChem). It isn't found floating around in nature outside the body — it's manufactured to be chemically identical to what your hypothalamus (a brain region) already produces.

WHAT DOES IT DO?

Think of gonadorelin as a text message sent to your pituitary gland telling it, "Hey, release LH and FSH!" Those two hormones then tell the ovaries or testicles to do their job — like triggering ovulation in women or supporting sperm and testosterone production in men. But here's the catch: your body normally sends this message in little bursts, like texts sent every couple of hours. If you instead leave the message on repeat non-stop, the pituitary gets annoyed and stops listening — this is called desensitization (Lutrepulse product monograph).

WHY ARE RESEARCHERS INTERESTED?

Researchers are mainly interested in gonadorelin for fertility and reproductive health — specifically helping women ovulate when their body isn't sending the right signals on its own, and as a test to check whether the pituitary gland is working properly. It's also studied as a way to prevent testicle shrinkage in men who are on testosterone therapy, though this specific use is less proven (Lutrepulse monograph; DrugBank).

WHAT DO HUMAN STUDIES SHOW?

In real medical studies, doctors gave women with a specific fertility issue (their brain wasn't sending the ovulation-trigger signal) small pulses of gonadorelin through an IV every 90 minutes for about 3 weeks. This got 68% of them (23 out of 34) to ovulate, usually within 2-3 weeks (Lutrepulse monograph). It's also used just as a one-time test dose to see how well a person's pituitary gland responds. Claims that it can "restore testosterone" or build muscle are based on the theory of how it works, not on solid clinical trial proof.

ANIMAL RESEARCH

In cattle with a certain ovarian cyst problem, veterinarians use gonadorelin shots (100 micrograms) as an approved treatment, and it's backed by data submitted to U.S. regulators (FDA NADA summary). This is actual approved veterinary use, not just a lab experiment.

SIDE EFFECTS

About 1 in 10 people using it report mild irritation where they got the shot, or vein irritation from the IV. About 12% of women who used it to get pregnant ended up with twins or more. Fewer than 1% got an uncomfortable condition called ovarian hyperstimulation, where the ovaries overreact and swell. A small number of people (about 3%) develop antibodies against the drug, meaning their immune system starts blocking it so it stops working. Rare but serious allergic reactions have also happened (Lutrepulse monograph).

EXPERIMENTAL RESEARCH DOSES

In the main fertility study, women got 5 micrograms delivered under the skin or into a vein every 90 minutes for 21 days using a special pump (Lutrepulse monograph). For a single diagnostic test of pituitary function, a bigger one-time dose around 100 micrograms was used. This is research and medical dosing information only, not a suggestion for personal use.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Online discussion — mostly on Reddit's r/trt and r/Testosterone communities — is heavily skeptical. People switched from hCG (a related hormone shot) to gonadorelin, often because hCG became harder to get through pharmacies after 2020 regulatory changes (Reddit r/trt). The most common complaint is that gonadorelin breaks down in the body within minutes, so the twice-a-week shots many clinics prescribe don't match how the hormone is supposed to work (in frequent pulses). Many users reported their testicles kept shrinking despite treatment and eventually switched back to hCG, which lasts much longer in the body (Reddit r/trt; Reddit r/Testosterone). A smaller group reported real success, but usually only when dosing many times per day rather than once or twice weekly (PeptiRank community reports). One person on TRT (testosterone replacement therapy) said dosing twice weekly gave them great libido and no shrinkage after 6 months, but this is an outlier compared to most reports (Reddit r/Testosterone).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community-reported doses ranged widely: some people used as little as 50-200 micrograms once or twice weekly (mirroring what clinics prescribe), while people trying to match the true research protocol used much smaller doses (10-20 micrograms) given many times a day, even every 90 minutes with a pump (Reddit gonadorelin threads; PeptiRank). The highest frequently discussed doses reached around 500 micrograms per week split into multiple shots. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

HCG · No. 74

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
2000 IU	$50	$250
5000 IU	$70	$350
10000 IU	$90	$450

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

HCG (human chorionic gonadotropin) is a hormone your body naturally makes during pregnancy — it's the hormone that home pregnancy tests detect. It's a fairly large protein made of 237 building blocks (amino acids) arranged in two connected pieces, and it's produced by cells in the placenta (Nwabuobi et al.). For medical use, it's manufactured either by purifying it from urine or by growing it in a lab using genetic engineering.

WHAT DOES IT DO?

HCG acts like a stand-in for another hormone called LH (luteinizing hormone), which normally tells your ovaries or testicles to do their job. In pregnancy, it tells the ovary to keep making a hormone (progesterone) that supports the pregnancy. In men, it can trick the testicles into thinking they're getting the normal "make testosterone" signal, even when that signal has been shut off — for example, by testosterone therapy (StatPearls).

WHY ARE RESEARCHERS INTERESTED?

Fertility is the big one — HCG is the standard trigger shot used in IVF (in vitro fertilization) to cause the final step of egg maturation before it's collected. It's also the hormone doctors measure in blood or urine to detect and track pregnancy, and it's used as a marker to track certain cancers. There's also long-standing interest (but no solid backing) in using it for weight loss (Nwabuobi et al.; StatPearls).

WHAT DO HUMAN STUDIES SHOW?

HCG is a well-established, heavily studied medicine for fertility treatments — it's the standard way to trigger ovulation in IVF, and doctors know a lab-made version (250 micrograms under the skin) works just as well as the older urine-derived version (10,000 units in the muscle) (Nwabuobi et al.). On the flip side, when it comes to weight loss, the FDA has stated clearly there's no real evidence it helps people lose more weight than they would otherwise (FDA Q&A on HCG weight-loss products).

ANIMAL RESEARCH

The existing profile data doesn't report specific animal studies for HCG — most of what's known comes directly from human medical and fertility research.

SIDE EFFECTS

The biggest risk is something called ovarian hyperstimulation syndrome (OHSS) — basically the ovaries overreact to the hormone and become swollen and painful, usually peaking about a week to 10 days after the shot (MENOPUR label). When people have used HCG (often from sketchy online sources) for weight loss, the FDA has received reports of very serious problems, including blood clots in the lungs, strokes, heart attacks, depression, and even death (FDA Q&A).

EXPERIMENTAL RESEARCH DOSES

For triggering egg maturation, doctors have studied a lab-made 250 microgram shot under the skin as being equal to a larger 10,000-unit shot of the older urine-derived version into the muscle (Nwabuobi et al.). This is medical dosing data, not personal-use advice.

WHAT IS THE RESEARCH COMMUNITY SAYING?

HCG is one of the most widely discussed hormones on TRT (testosterone replacement therapy) and bodybuilding forums like r/Testosterone, r/trt, and Professional Muscle. People overwhelmingly describe it as effective for preventing testicle shrinkage during testosterone therapy and for restoring fertility afterward, with many reporting their testicles returned to normal size within weeks to months (Reddit r/Testosterone; IronMag Forums). Some users also report a boost in general well-being and libido. A common complaint is that higher doses can raise estrogen levels, causing side effects like oily skin, acne, or mood swings, which is why many combine it with an aromatase inhibitor (a drug that blocks estrogen production) (Reddit r/trt). For weight loss, most posts (including on bodybuilding-focused forums) echo the FDA's position that it doesn't meaningfully help beyond what a low-calorie diet would do on its own (Anabolic Steroid Forums).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

For maintaining testicle size and fertility during TRT, people commonly report using 250-500 IU (international units) two to three times per week, with some going up to 1,000-2,000 IU weekly for fertility-focused use (Reddit hCG/TRT threads; Anabolic Steroid Forums). Some report using it daily at lower doses (around 100 IU/day). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

HMG · No. 75

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
75 IU	$65	$325

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

HMG (human menopausal gonadotropin), sold under the brand MENOPUR, isn't actually one single peptide — it's a purified mix of hormones extracted from the urine of women who have gone through menopause. Since their ovaries have stopped working, these women's bodies produce very high levels of two fertility hormones (FSH and LH), which get collected and purified into a standardized medicine (MENOPUR label).

WHAT DOES IT DO?

Picture your ovaries as a factory that needs two different signals to build and release an egg. HMG delivers both: the FSH part tells egg-containing follicles to grow, and the LH-like part helps prepare the egg for release. It takes about 1 to 3 weeks of injections to get follicles to grow properly, but a separate shot (usually HCG) is still needed afterward to actually trigger the egg's release (MENOPUR label).

WHY ARE RESEARCHERS INTERESTED?

HMG is mainly studied for fertility treatment — specifically helping women grow multiple eggs during IVF (in vitro fertilization) cycles. Researchers have also compared it to newer lab-made fertility drugs to see which works better and is safer.

WHAT DO HUMAN STUDIES SHOW?

HMG has solid backing from real clinical trials for helping women grow eggs during fertility treatment, with pregnancy rates similar to a newer lab-made version (recombinant FSH), even though it tends to produce slightly fewer eggs (Deeks, Clin Drug Investig 2018). It also seemed to cause a gentler ovarian response with a lower chance of overstimulation compared to the lab-made alternative. There isn't strong evidence for using it outside of fertility treatment.

ANIMAL RESEARCH

The existing profile data doesn't report any animal studies specific to HMG — the available research comes from human fertility trials.

SIDE EFFECTS

In one trial of 373 women, about 7 in 100 developed ovarian hyperstimulation syndrome (painful ovarian swelling). More than a third of resulting pregnancies were multiples (twins or more). Other reported problems include lung complications, blood clots (including strokes and heart attacks in rare cases), and ovarian twisting. Common milder complaints include stomach pain (about 7%), headache (about 6%), and pain where the shot was given (about 4%) (MENOPUR label).

EXPERIMENTAL RESEARCH DOSES

In studies, a single 225-unit shot under the skin reached its highest blood level after about 18 hours, and the hormone stuck around in the body for roughly 11-13 hours before being cleared (MENOPUR label). Typical fertility treatment protocols run injections over 7-20 days.

WHAT IS THE RESEARCH COMMUNITY SAYING?

On fertility forums like r/TTC_PCOS and bodybuilding/TRT forums, HMG gets mixed reviews. Some women undergoing IVF report lower-than-expected results with HMG-only protocols, especially those with PCOS (polycystic ovary syndrome), since it can add extra LH-like activity their bodies don't need (Reddit r/TTC_PCOS). In the men's TRT/fertility community, HMG is frequently discussed as something added on top of HCG when a man wants to preserve or restore fertility, since it directly provides FSH (needed for sperm production) rather than relying on the small amount naturally found in HCG (Reddit r/Testosterone; Reddit r/Testosterone). Multiple posters described successful pregnancies after combining HCG and HMG for a few months, describing it as expensive but worth it (Anabolic Steroid Forums; Reddit r/maleinfertility).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Men's fertility forums commonly discuss 75 IU two to three times weekly, sometimes up to 150 IU three times a week, usually paired with 500-1,000 IU of HCG a few times weekly (Reddit r/Testosterone; ExcelMale forum). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Kisspeptin-10 · No. 76

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
5 mg	$50	$250
10 mg	$60	$300

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Kisspeptin-10 is a small, lab-made piece (fragment) of a longer natural hormone called kisspeptin, which your brain makes to help control puberty and reproduction. It's a chain of just 10 amino acids (protein building blocks), which is why it's called kisspeptin-"10" (PubChem). Scientists discovered how important the full-length hormone is after finding that people born without a working receptor for it never went through puberty (de Roux et al., PNAS 2003).

WHAT DOES IT DO?

Kisspeptin-10 is like the very first domino in a chain reaction that leads to reproductive hormones being released. It tells a specific set of brain cells to release GnRH, which then tells the pituitary gland to release LH and FSH — the hormones that control testosterone, estrogen, and fertility. In studies, a single injection could double LH levels in men within about 30 minutes (Jayasena et al., JCEM 2011).

WHY ARE RESEARCHERS INTERESTED?

Researchers are interested in kisspeptin-10 for fertility and hormone health, since it sits at the very top of the reproductive hormone chain. There's also growing scientific interest in its effects on mood, sexual arousal, and brain activity related to intimacy and bonding — separate from its hormone effects (de Roux et al.; Jayasena et al.).

WHAT DO HUMAN STUDIES SHOW?

In healthy men, injecting kisspeptin-10 reliably raised LH at every dose tested, and testosterone rose at some doses too, with effects peaking around 30-40 minutes after the shot (Jayasena et al., JCEM 2011). Interestingly, the same shot did almost nothing in women during one part of their monthly cycle but did work during another part — showing the hormone system responds very differently depending on timing and sex. Separately, a related but longer-lasting version of the hormone (kisspeptin-54, not the same as kisspeptin-10) successfully triggered egg release in 95% of women during a fertility study, with a lower risk of ovarian overstimulation than usual (Abbara et al., JCEM 2015). Direct proof for kisspeptin-10 itself as an actual treatment (rather than just a research tool) is still limited.

ANIMAL RESEARCH

In sheep and rodents, longer-acting versions of the kisspeptin hormone (designed to last longer than kisspeptin-10, since kisspeptin-10 disappears from the body in minutes) successfully triggered ovulation and sped up puberty (Decourt et al., Sci Rep 2016).

SIDE EFFECTS

In the human studies referenced, short-term use didn't cause any serious reported problems, and the fertility trigger trial using the related longer-lasting version found no cases of moderate-to-severe ovarian overstimulation (Abbara et al.). However, there's no research on what happens with long-term or repeated use, and no studies yet on possible effects in men with prostate issues or other hormone-related conditions.

EXPERIMENTAL RESEARCH DOSES

In the human research studies, kisspeptin-10 was given as a single shot into a vein at doses between roughly 0.3 and 10 nanomoles per kilogram of body weight, and it disappeared from the bloodstream extremely fast — its levels dropped by half in only about 4 minutes (Jayasena et al.). Because it clears the body so quickly, researchers developing longer-acting versions gave those by continuous IV drip or repeated hourly injections instead of single shots.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Kisspeptin-10 has a notably active community, especially among men recovering from sexual side effects of past medications (in forums like r/PSSD and r/FinasterideSyndrome) and general biohackers on r/Biohackers and r/Peptides. Many people report meaningful improvements in libido, arousal, and mood, sometimes describing effects as fast as within one to two weeks of starting daily use (Reddit r/FinasterideSyndrome; Reddit r/PSSD). Some report unexpected mood-boosting or social-confidence effects that seem separate from the hormone pathway (Reddit r/NooTopics). A significant concern raised repeatedly is that rising estrogen levels from increased hormone activity can cause side effects like poor sleep, heavy-feeling legs, and mood swings if not monitored with blood tests (Reddit r/PSSD). Others report no effect at all, especially when using it as a subcutaneous injection rather than a nasal spray, since some believe the short-acting nature of the compound makes absorption timing important (Reddit r/Biohackers). Compared with hCG, several users describe kisspeptin as giving a stronger, more immediate libido boost but with less reliable effects on testicle size (Reddit r/Peptides).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

The lowest commonly discussed doses were around 20-60 micrograms per dose, the most common range discussed was 100-250 micrograms taken every other day to a few times weekly, and higher discussions reached 300-500 micrograms per injection or per week (Reddit r/PSSD; Reddit r/Testosterone; Biohack Labs dosing guide). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Oxytocin Acetate · No. 77

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
2 mg	$25	$125
5 mg	$35	$175
10 mg	$45	$225

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Oxytocin is sometimes called the "love hormone," and it's completely natural — your brain makes it in a region called the hypothalamus and stores it in the pituitary gland until it's needed (StatPearls). It's a small ring-shaped chain of 9 amino acids (protein building blocks). The medical version used in hospitals (sold as Pitocin or Syntocinon) is a lab-made copy of the same molecule, and the "acetate" part just refers to how the medicine is chemically packaged, not a different effect (PubChem).

WHAT DOES IT DO?

Oxytocin's most famous jobs are helping the uterus contract during childbirth and helping breast milk get released during breastfeeding. But it also acts as a messenger in the brain, playing a role in feelings of trust, bonding, and connection with other people. It's like your body's way of chemically reinforcing social and physical closeness (StatPearls).

WHY ARE RESEARCHERS INTERESTED?

Doctors have used it for decades in real hospital settings — mainly for starting or speeding up labor and controlling bleeding after childbirth. Researchers are also very interested in its effects on the brain, especially for anxiety, social behavior, and conditions like autism, though results here have been mixed. There's also interest (without strong proof) in whether it can help with sexual arousal or emotional connection (StatPearls; Sikich et al., NEJM 2021).

WHAT DO HUMAN STUDIES SHOW?

For childbirth-related uses, oxytocin is extremely well established with decades of clinical use for starting labor and controlling bleeding after delivery (StatPearls). But for behavioral or mental health uses, the best evidence is disappointing: a large, high-quality study gave nasal oxytocin spray to 290 children and teens with autism for 24 weeks and found it worked no better than a fake spray (placebo) for improving social withdrawal (Sikich et al., NEJM 2021). Other uses like helping with arousal or delayed orgasm are talked about but don't have strong trial evidence backing them.

ANIMAL RESEARCH

The existing profile data doesn't detail specific animal studies for oxytocin, though its role in bonding behavior is widely studied in animal research generally; the sourced profile focuses on human obstetric and neuropsychiatric evidence.

SIDE EFFECTS

Common milder effects include redness where injected, nausea, vomiting, and stomach discomfort, along with contractions that can feel stronger and more frequent than expected. More serious but rarer problems include irregular heartbeat, seizures, dangerously high blood pressure, hallucinations, and severe allergic reactions. Taking too much, especially with certain IV fluids, can cause water buildup in the body serious enough to cause coma. There's also a reported link with increased risk of depression after childbirth. It should not be used in several specific pregnancy complications (StatPearls).

EXPERIMENTAL RESEARCH DOSES

Through an IV, effects start in about 1 minute and last about an hour; through a shot in the muscle, effects start in 3-5 minutes and last up to 3 hours; as a nasal spray (10-20 units), effects start within minutes and last about 20 minutes. The hormone disappears from the blood extremely fast — its level drops by half in just 1-6 minutes (StatPearls; PubChem). This reflects medical dosing data, not a personal-use suggestion.

WHAT IS THE RESEARCH COMMUNITY SAYING?

On r/Biohackers, people frequently describe using oxytocin nasal spray for mood and social comfort, with several describing near-instant improvements in bad moods or feelings of warmth and connection after just one or two sprays (Reddit r/Biohackers). Some report it feels almost euphoric but fades quickly with no lingering effects. A less common but notable complaint from a small number of male users is testicle enlargement or worsening of prostate symptoms with regular nasal use (Reddit r/Biohackers). Others report no noticeable effect at all, and a few describe unrelated physical discomfort like back pain after use. Compared to the clear, well-documented medical benefits in childbirth, the community's mood/bonding use is much more anecdotal (based on personal reports) and inconsistent between users.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

For nasal spray use, community reports commonly mention 1-2 sprays per nostril per use (roughly in the range used in some clinical studies, around 10-40 IU), used situationally rather than daily (Reddit r/Biohackers). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Teriparatide · No. 78

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
10 mg	$90	$450

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Teriparatide is a lab-made copy of the first 34 building blocks (amino acids) of a much longer natural hormone called parathyroid hormone, which your body uses to control calcium and bone health. It's sold under brand names like Forteo and is made using genetic engineering technology (recombinant DNA) rather than being extracted from a natural source (PubChem).

WHAT DOES IT DO?

Here's something surprising: too much parathyroid hormone all the time actually breaks bone down, but tiny, once-daily doses of teriparatide flip the script and build new bone instead. It's like the difference between constantly nagging someone (which wears them down) versus a quick daily reminder (which motivates them to build something). This once-a-day dosing pattern triggers bone-building cells to activate, while also affecting how your kidneys handle calcium and phosphate (StatPearls).

WHY ARE RESEARCHERS INTERESTED?

Teriparatide is specifically important for treating osteoporosis (weak, fragile bones) — it's one of the few available treatments that actually builds new bone rather than just slowing bone loss.

WHAT DO HUMAN STUDIES SHOW?

In a major clinical trial of over 1,600 women with osteoporosis who'd already had a spine fracture, those on daily teriparatide injections had far fewer new spine fractures compared to those on a placebo (fake treatment): about 5% got a new fracture on the lower dose versus 14% on placebo. Bone density in the spine went up by about 9 percentage points (Neer et al., NEJM 2001). Nausea and headache were the most common downsides.

ANIMAL RESEARCH

In rats given the drug over their entire two-year lifespan at various doses, some developed a type of bone cancer called osteosarcoma. This raised concern initially, but 15 years of monitoring people who actually take the drug hasn't shown the same cancer risk in humans (StatPearls).

SIDE EFFECTS

Common complaints include nausea, headache, dizziness, and a drop in blood pressure when standing up too fast. About 3% of people on the standard dose get elevated calcium levels in their blood. Rare skin-related calcium buildup has been reported. Because of the rat cancer findings (even though not seen in humans), doctors avoid prescribing it to people who've had bone cancer, radiation to their bones, or certain other bone conditions, and it shouldn't be used during pregnancy or breastfeeding (StatPearls).

EXPERIMENTAL RESEARCH DOSES

The standard studied and approved dose is 20 micrograms injected under the skin once daily into the thigh or belly area. It reaches its highest level in the blood about 30 minutes after injection and disappears from the body quickly, with a half-life around 1 hour (StatPearls).

WHAT IS THE RESEARCH COMMUNITY SAYING?

On r/osteoporosis, teriparatide (brand name Forteo) is one of the most-discussed osteoporosis treatments, and the community response is generally positive about bone-density gains but frustrated about side effects. A recurring, frequently repeated complaint is unexpected belly fat gain during treatment, which many users say isn't mentioned in official product information despite showing up across many personal accounts (Reddit r/osteoporosis). Some describe this fat gain reversing after stopping the medication. Other users mention muscle cramps severe enough that they switched to a different bone medication. Several long-term patients describe losing their bone-density gains again after stopping treatment if they don't follow up with another bone medicine, which matches medical guidance that teriparatide is often paired with another drug afterward to help hold onto the gains (Reddit r/osteoporosis).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community discussion around teriparatide largely mirrors the standard prescribed medical dose of 20 micrograms injected once daily, since it's an FDA-approved prescription medication rather than an unregulated research peptide; forum discussion focuses more on side effects and duration of treatment (commonly up to 2 years) than on off-label dosing experiments (Reddit r/osteoporosis). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Testagen · No. 79

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
20 mg	$75	$375

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Testagen is a very short, lab-made chain of just 4 amino acids (protein building blocks), often written as KEDG based on the first letters of those building blocks. Despite the name sounding like "testosterone," it is NOT a hormone or steroid — it's part of a family of experimental "bioregulator" peptides developed by Russian scientist Vladimir Khavinson, meant to target reproductive-system tissue specifically (Khavinson et al., Molecules 2021). The name refers to the testicle-related tissue it's theorized to act on, not to testosterone itself.

WHAT DOES IT DO?

The theory behind Testagen and similar tiny peptides is that they're small enough to slip inside cells and even into the cell's control center (the nucleus), where they interact directly with DNA and its packaging materials (called histones) to influence which genes get turned on or off. Think of it like a librarian who doesn't add new books to the library, but instead decides which existing books get pulled out and read. For Testagen specifically, lab experiments (not tests in living people) showed it can bind to certain DNA sequences and to specific proteins that DNA wraps around (Khavinson et al., Molecules 2021).

WHY ARE RESEARCHERS INTERESTED?

The claimed area of interest is male reproductive system function, but it's important to understand this interest is based almost entirely on theory and lab-dish experiments, not on solid human trial evidence.

WHAT DO HUMAN STUDIES SHOW?

There are no real controlled human trials of Testagen — none have been registered publicly, and no studies have measured how it behaves once inside the human body or whether it's genuinely safe. Any claims about improved fertility or reproductive function come from a mix of theory and word-of-mouth reports, not scientific proof (Khavinson et al.). It's also worth noting that almost all of the existing research on this and related peptides comes from a small number of connected Russian research groups, without much outside confirmation.

ANIMAL RESEARCH

The closest thing to real experimental data is a lab-dish (in vitro) study, not a live-animal study: researchers tested this exact 4-amino-acid peptide alongside five other short peptides and found it could bind to certain proteins from wheat plant cells (called histones) that DNA wraps around, with the strength of binding depending on the exact DNA sequence involved (Fedoreyeva et al., Biochemistry (Moscow) 2013). This is a basic biochemistry experiment, not a study of a living animal's health or behavior.

SIDE EFFECTS

There's no published safety data on Testagen at all — no controlled studies checking for toxicity, no information on how doses affect the body over time, and no defined list of who should avoid it. Since the proposed way it works involves influencing genes, the complete lack of data checking for things like DNA damage or long-term reproductive effects is a real gap, not proof that it's safe.

EXPERIMENTAL RESEARCH DOSES

There is no established, measured dosing information from real research studies — details like how long it stays in the body, how well it's absorbed, and how it breaks down have simply never been studied and published.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Discussion of Testagen is thin compared to more mainstream peptides, scattered mainly across niche subreddits like r/Peptides and specialty peptide vendor blogs. Reports are decidedly mixed: some users describe no effects at all after weeks of use, while others report modest increases in semen volume, energy, or libido after a course of dosing (Reddit r/Peptides; Reddit r/CosmicNootropic). Multiple independent write-ups emphasize that vendor marketing claims (like "200,000+ treated patients" or specific testosterone-normalizing effects) cannot be verified against any indexed scientific publication, and caution that the compound's real evidence base is thin, old, and concentrated in a single Russian research lineage with essentially no outside replication (Peptide News Network overview; PeptideInfo Wiki). As one Reddit user summarized it, "there really isn't replicated data for these in English... will they hurt you, probably not" (Reddit r/Peptides) — a fair description of a compound where public discussion is limited and enthusiasm outpaces evidence.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

The lowest commonly discussed protocols involve oral capsules at around 10 mg per day for 10-20 day cycles, the most common injectable protocols discussed range from 100-300 micrograms daily, and the higher end of discussion reaches around 1-2 mg daily by injection for a 20-day course (Reddit r/CosmicNootropic; vendor dosing guides). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

SECTION 08

Mitochondrial / Antioxidant

5
COMPOUNDS

Compounds studied for cellular energy production and reducing oxidative stress.

Glutathione · No. 80

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
600 mg	$35	$175
1200 mg	$60	$300
1500 mg	$65	$325

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Glutathione is a tiny, naturally occurring molecule made of just 3 amino acids (protein building blocks) that your own cells make constantly — it's often called your body's "master antioxidant." It's not something invented in a lab from scratch; rather, medical and cosmetic versions are made to be identical to what your body already produces, then given as a pill, IV drip, or injection (Forman et al., Mol Aspects Med 2009).

WHAT DOES IT DO?

Think of glutathione as your body's built-in cleanup crew. It grabs harmful, unstable molecules (called oxidants) floating around your cells and neutralizes them before they can cause damage, kind of like a sponge soaking up a spill before it stains the carpet. It also helps escort out toxins and certain drugs from your system, and it's a way your cells deliver the amino acid cysteine where it's needed (Forman et al.; Aebi et al.).

WHY ARE RESEARCHERS INTERESTED?

Researchers are interested in glutathione mainly for general antioxidant support and overall cellular health, since oxidative stress (basically cell damage from unstable molecules) is linked to aging and many diseases. It's also popular commercially for skin brightening/lightening, though solid scientific proof for this use is thin (Davids et al., Int J Dermatol 2016).

WHAT DO HUMAN STUDIES SHOW?

A well-run 6-month study gave 54 people either 250 mg or 1,000 mg of oral glutathione daily and found the higher dose raised glutathione levels in blood cells by roughly 30-35%, and in cheek cells by a striking 260%; it also boosted certain immune cells' ability to fight off threats (Richie et al., Eur J Nutr 2015). But confusingly, a separate study giving people a single 3-gram oral dose found no meaningful rise in blood glutathione levels at all (Witschi et al., Eur J Clin Pharmacol 1992) — suggesting that a single dose behaves very differently from taking it consistently over months. As for the popular skin-lightening use given through an IV, a careful review of the science found there simply are no published studies proving it works or is safe for that specific purpose (Davids et al.).

ANIMAL RESEARCH

The existing profile data doesn't report specific animal studies for glutathione — the available research described here is entirely from human studies.

SIDE EFFECTS

Short clinical trials found minimal or no side effects, but there's essentially no long-term safety data for repeated IV use. Health regulators in the Philippines have flagged possible risks including liver, kidney, and nervous system problems, a rare but severe skin reaction, a theoretical increased skin cancer risk from changing how your skin's pigment behaves, and infection risk if the injections aren't done under sterile, medically supervised conditions (FDA Philippines Advisory 2019-182).

EXPERIMENTAL RESEARCH DOSES

Through an IV, glutathione disappears from the blood quickly, with its level dropping by half in about 14 minutes. In the successful 6-month oral study, doses of 250 mg or 1,000 mg per day were used (Aebi et al.; Richie et al.). This reflects study dosing data, not a recommendation.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Glutathione has a large, very active community, especially centered on skin lightening/brightening in South Asian communities on Reddit (r/IndianSkincareAddicts, r/TwoXIndia, r/SouthIndianInfluencer) as well as general biohacking spaces (r/Biohackers, r/BiohackingU). Reports are genuinely split: many people describe visibly brighter or lighter skin after weeks of IV treatments, while a similar number report no noticeable change at all, describing the cost (often $150-500 per session) as not worth it (Reddit r/IndianSkincareAddicts; IVDirectory community review). A commonly repeated theme is that any skin-brightening results fade within weeks to months after stopping treatment, meaning ongoing use is needed to maintain results (Reddit r/30PlusSkinCare). Several posters, including people identifying as medical professionals, caution that IV glutathione for skin lightening isn't FDA-approved and that any "glow" could partly be from simple IV hydration and the placebo effect rather than the glutathione itself (Reddit r/TwoXIndia). Separately, in general biohacking communities, people report using smaller injectable doses for skin clarity, reduced brain fog, and general energy rather than dramatic lightening (Reddit r/DIYaesthetics).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

For injectable/IV use, commonly discussed doses range from about 100-300 mg per dose a few times a week on the lower end, up to 600-1,500 mg per IV session (sometimes 2-3 times weekly) on the higher end for skin-lightening-focused protocols (Reddit r/BiohackingU; Reddit r/IndianSkincareAddicts). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Melanotan I · No. 81

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
10 mg	$50	$250

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Melanotan I (also called MT-I or afamelanotide, brand name SCENESSE) is a lab-made copy of a hormone your body already makes called alpha-MSH, which tells your skin to produce more pigment (the brown-black coloring called melanin). It's a chain of 13 amino acids (tiny building blocks that link together to form proteins and peptides) put together in a lab, not something found naturally in this exact form (FDA SCENESSE label). Interesting side note: even though the source profile files it under 'Mitochondrial/Antioxidant' peptides (compounds that protect the tiny power plants inside your cells), that's actually a mismatch — MT-I doesn't work on mitochondria at all. It works on skin pigment cells instead.

WHAT DOES IT DO?

Think of MT-I like a key that fits a lock on your skin's pigment-making cells (called melanocytes). Once it turns that lock, the cells start pumping out more brown pigment (melanin), giving you a deeper tan — even without much sun. This happens through a chemical messenger system in the cell (cAMP) that gets switched on when MT-I attaches to a receptor called MC1-R (FDA label; EMA SmPC).

WHY ARE RESEARCHERS INTERESTED?

The main area of interest is skin protection — specifically helping people with a rare disease (erythropoietic protoporphyria, or EPP) tolerate sunlight without severe pain reactions, by boosting their skin's natural pigment shield. This is the only area with strong backing in the source data; claims about cosmetic tanning or antioxidant/anti-aging benefits are not backed by solid evidence in the profile.

WHAT DO HUMAN STUDIES SHOW?

Two big, well-designed human trials (the kind where neither doctors nor patients know who's getting the real drug, called double-blind, placebo-controlled trials) tested implants of MT-I in people with EPP. In the US trial (94 people, 270 days), patients could spend about 69 hours in the sun pain-free versus 41 hours for those on a placebo (fake treatment). In the European trial (74 people, 180 days), the difference was even bigger — 6 hours versus under 1 hour — and people also had fewer painful skin reactions and reported feeling better overall (Langendonk et al., NEJM 2015). Outside of this specific disease, there's no solid human trial evidence for cosmetic tanning or antioxidant use — instead there are worrying case reports of people using unregulated 'grey-market' Melanotan and later developing darker moles or skin growths, though it's not proven the drug caused this (Actas Dermosifiliogr 2012; Ir Med J 2013).

ANIMAL RESEARCH

The source data provided doesn't describe any animal studies for Melanotan I — the research summarized focuses entirely on human trials and case reports.

SIDE EFFECTS

In the official trials, about 1 in 5 people had irritation where the implant was placed (like redness or soreness), and about the same number felt nauseous. Other reported effects included a sore throat, cough, feeling tired, dizziness, some skin darkening (in about 4 out of 100 people), sleepiness, and new or darker moles (also about 4%) (FDA label). European data on 425 patients found similar rates of nausea (~19%) and headache (20%), plus rare but serious allergic reactions in some people. Doctors recommend a full skin check every six months because moles can darken. People with severe liver problems shouldn't use it, and effective birth control is required during treatment (EMA SmPC). Unregulated injectable versions carry extra risks since you don't know the real dose or purity, and sharing needles is dangerous (Actas Dermosifiliogr 2012).

EXPERIMENTAL RESEARCH DOSES

In the approved medical use, doctors place a 16 mg implant under the skin above the hip bone every 2 months. It takes about 36 hours to reach peak levels in the blood and stays active for roughly 15 hours (half-life) (FDA label). This is strictly how it was studied in medical research for a specific rare disease — it is not a suggestion for personal use.

WHAT IS THE RESEARCH COMMUNITY SAYING?

There's a large and active community discussing Melanotan I, mostly for cosmetic tanning rather than the approved medical use. On Reddit threads like r/KPRubraFaceii and r/SkincareAddiction, people describe getting noticeably tanned within one to two weeks, along with mild stomach cramps, brief facial flushing, and increased moles (Reddit r/KPRubraFaceii). Many users compare it favorably to Melanotan II, saying MT-I gives a 'more subtle, clean tan' with fewer side effects (Reddit r/Peptidesource). Common complaints are nausea (some say it's worse than any other peptide they've tried) and darkening of existing moles, which some users monitor with regular dermatologist visits (Reddit r/Biohackers). A recurring controversial claim is that it boosts libido or social confidence — this is not something the approved medical evidence supports, and one skincare-forum poster explicitly warned that 'reliable evidence supporting these claims remains sparse' (Reddit r/SkincareAddiction).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Online, people report starting doses as low as 100-250 mcg (micrograms) per injection, with a common protocol being 250-500 mcg two to three times a week, or a 'loading phase' of around 1 mg daily for 10 days followed by a lower maintenance dose once tanning is achieved (Reddit r/Peptidesource; The Peptide Catalog dosing guide). Some users report going as high as 1-2 mg per day during aggressive tanning phases (Peptides.org dosage guide). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

MOTS-c · No. 82

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
10 mg	$50	$250
40 mg	$100	$500

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

MOTS-c is a small, naturally occurring peptide (a short chain of amino acids, which are protein building blocks) that your body actually makes from an unusual place: your mitochondria, the tiny structures inside cells often called the "powerhouse" because they produce energy. It's only 16 amino acids long and comes from a surprising source — a piece of DNA inside the mitochondria that scientists didn't realize actually coded for a protein until relatively recently (UC eScholarship review).

WHAT DOES IT DO?

MOTS-c acts like a messenger that tells your cells, especially muscle cells, to become more efficient at using energy, kind of like flipping a switch that shifts your body's metabolism into a leaner, more efficient mode. It does this by activating a well-known "metabolic master switch" enzyme (called AMPK) that also gets triggered naturally during exercise. Under certain kinds of stress, it can even travel into the cell's control center (the nucleus) to help turn on genes related to handling that stress (Lee et al., Cell Metab 2015; Wan et al., J Transl Med 2023).

WHY ARE RESEARCHERS INTERESTED?

MOTS-c has attracted a lot of interest in metabolic health — meaning things like insulin resistance (when your body doesn't respond well to insulin, a step toward diabetes), obesity, and general aging-related decline in energy and physical function.

WHAT DO HUMAN STUDIES SHOW?

So far, there are no completed clinical trials in humans testing whether giving people MOTS-c actually treats anything — the human evidence is all "observational," meaning scientists just measured natural MOTS-c levels in different groups of people rather than giving it as a treatment. They found lower natural MOTS-c levels in obese teenage boys, people with type 2 diabetes, kidney disease, and heart blood vessel problems (Wan et al., J Transl Med 2023). Regulators have also stated they've found no human safety data for MOTS-c through any method of use (FDA).

ANIMAL RESEARCH

This is where the strongest evidence lies. In mice, MOTS-c prevented insulin resistance (a step toward diabetes) linked to both aging and a high-fat diet, and it prevented diet-induced obesity (Lee et al., Cell Metab 2015). In older mice, daily injections for 2 weeks improved physical performance, and in obese mice, a shorter treatment improved blood sugar and insulin measurements (UC eScholarship review).

SIDE EFFECTS

There is no dedicated published research on side effects, toxicity, or immune reactions from taking MOTS-c (Wan et al.). U.S. regulators have specifically flagged concerns that compounded MOTS-c products may cause immune reactions depending on how they're given, that verifying the purity of manufactured batches is complicated, and plainly stated they "lack important information regarding any safety issues raised by MOTS-c, including whether it would cause harm if administered to humans" (FDA).

EXPERIMENTAL RESEARCH DOSES

There's no established data on how MOTS-c behaves in the human body (like how long it lasts or how well it's absorbed). In animal research, it was given as injections either into the belly (intraperitoneal) or under the skin, with doses like 15 mg per kilogram of body weight daily for 2 weeks, or 2.5 mg per kilogram twice daily for 3 days in different studies (UC eScholarship review).

WHAT IS THE RESEARCH COMMUNITY SAYING?

MOTS-c has an active following in biohacking and longevity communities, particularly on r/Biohackers, r/PeptideForum, and r/BodyHackGuide. Reports are mixed regarding fat loss — several users note that the doses typically used by the community (often around 2-4 mg) are far lower than the doses used in the actual mouse research (which scaled up would be much higher), and some openly say they haven't seen convincing fat-loss results despite trying it (Reddit r/Biohackers). The most consistently reported benefit is increased energy and improved exercise stamina, especially when taken before workouts (Reddit r/PeptideForum; Reddit r/BodyHackGuide). A notable independent write-up points out that the only real human clinical trial data comes from a different, related compound (an analog called CB4211, not the actual MOTS-c peptide people are buying) tested at 25 mg per day — much higher than typical community doses of 2-4 mg, likely due to cost (community dosing analysis; general MOTS-c forum discussion). A minority of users report side effects like intense focus bordering on anxiety, or a sharply increased appetite (Reddit r/BodyHackGuide).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

The lowest commonly discussed doses are around 1-2 mg per day, the most common range discussed is 2-5 mg taken 3-5 times per week (often before workouts), and higher-end discussions reach 10 mg per week or more, sometimes even 5-10 mg per single dose (Reddit r/Biohackers; Reddit r/BodyHackGuide; Evolutionary.org forum). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

NAD + · No. 83

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
100 mg	$30	$150
250 mg	$40	$200
500 mg	$50	$250
1000 mg	$100	$500

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

NAD+ (nicotinamide adenine dinucleotide) isn't actually a peptide — it's a small molecule your body makes naturally, found in every living cell. Think of it as a rechargeable battery that helps your cells produce energy and repair damage. Because NAD+ itself doesn't survive well when taken directly, many products instead use 'precursor' molecules — building blocks like nicotinamide riboside (NR) or nicotinamide mononucleotide (NMN) — that your body converts into NAD+.

WHAT DOES IT DO?

Imagine your cells as tiny factories that need electricity to run. NAD+ acts like a shuttle bus, carrying electrons (tiny charged particles) around to keep the factory's power plant (the mitochondria) running smoothly. As we age, our natural NAD+ supply drops, so the idea behind supplementing it is to 'recharge the battery.' Taking the precursor pills (NR) raises NAD+ levels in the blood in a dose-dependent way — meaning more pills, more effect, up to a point (Trammell et al., Nat Commun 2016).

WHY ARE RESEARCHERS INTERESTED?

Researchers are interested in NAD+ mainly for anti-aging/longevity purposes and general cellular energy support, since NAD+ naturally declines as people get older. There's also early interest in brain-related conditions like neurodegenerative disease, though this is described as a hypothesis still being tested rather than a proven benefit.

WHAT DO HUMAN STUDIES SHOW?

A small one-person pilot study found that a single dose of the pill form (NR) raised blood NAD+ levels up to 2.7 times higher than normal (Trammell 2016). A more rigorous 12-week study (where people didn't know if they got the real pill or a fake one, and the treatment/placebo order was swapped halfway through) found that NR pills were well tolerated in healthy older adults and did raise NAD+ levels in the body — but effects on blood pressure and blood vessel stiffness were described as ideas that need more testing, not proven benefits yet (Martens et al., Nat Commun 2018). For the IV (through-the-vein) version, one small pilot study found that NAD+ given this way gets broken down very quickly by the body and mostly ends up excreted in urine, raising real questions about whether IV NAD+ 'gets in' the way marketers claim (Grant et al., Front Aging Neurosci 2019). Popular clinic claims about IV NAD+ fixing addiction, chronic fatigue, or 'anti-aging' are not backed by controlled trials in the source material.

ANIMAL RESEARCH

The provided source data doesn't describe animal studies for NAD+ — the research summarized focuses on human trials and pharmacology data.

SIDE EFFECTS

In the 12-week pill (NR) study, the treatment was well tolerated by healthy middle-aged and older adults, with no serious safety issues flagged (Martens 2018). The small IV pilot study didn't report any adverse effects either, but it was a tiny, short study, so it can't tell us much about long-term safety (Grant 2019). Longer-term risks and specific dangers for IV use aren't well established in the available published research.

EXPERIMENTAL RESEARCH DOSES

In human research, single oral doses of the precursor NR (100, 300, and 1,000 mg) were tested and showed a dose-dependent rise in blood NAD+ levels (Trammell 2016). The chronic study used the pill form for two separate 6-week periods. The IV study used a much smaller amount — a continuous drip of about 3 micromoles per minute over 6 hours (Grant 2019). These figures come strictly from published research and are shared for educational purposes only, not as usage advice.

WHAT IS THE RESEARCH COMMUNITY SAYING?

NAD+ has a huge amount of online discussion, especially around IV drips versus injections. On subreddits like r/Biohackers and r/NicotinamideRiboside, people report feeling sharper mental clarity, more energy, and better mood after IV sessions, though the experience is often described as uncomfortable during the infusion itself — nausea, cramping, or a racing heart are commonly mentioned (Reddit r/Biohackers). Many users switch from expensive IV drips (often $250-$500+ per session) to cheaper subcutaneous (under-the-skin) injections, reporting similar benefits at a lower cost (Reddit r/NicotinamideRiboside). A notable controversy: several commenters point out that NAD+ can't easily cross into cells intact and gets broken down by the body regardless of how it's given — with some users skeptical of the entire premise, while others insist their personal results (better sleep, less fatigue, improved mood) are real (Reddit r/covidlonghaulers). Long-COVID and chronic fatigue communities are especially active users, with very mixed reports — some say it was life-changing, others say it did nothing.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

For IV drips, commonly discussed doses range from 100-250 mg on the low end up to 500-1,000 mg per session, sometimes given daily for several days in a row during a 'loading phase,' then tapered to monthly maintenance sessions (Reddit r/Biohackers). For subcutaneous injections, people discuss starting around 25-50 mg a few times a week and gradually working up to 100-200 mg per dose (Reddit r/NicotinamideRiboside). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

SS-31 · No. 84

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
10 mg	$65	$325
50 mg	$125	$625

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

SS-31 (also called elamipretide, brand name FORZINITY) is a lab-made peptide — a short chain of just 4 amino acids (the building blocks of proteins) — designed to target mitochondria, the tiny structures inside your cells that produce energy. It was created by scientists (Szeto and Schiller) specifically to home in on a fatty molecule called cardiolipin found only in the membranes of mitochondria (FDA FORZINITY label).

WHAT DOES IT DO?

Picture your mitochondria as the power plant inside each cell, with an assembly line of machines that turn fuel into usable energy. SS-31 is thought to act like a repairman that clings to the inner wall of this power plant, helping keep the energy-making machinery organized and running efficiently, and reducing harmful byproducts (called reactive oxygen species, a type of cell damage) that leak out when things run poorly (Drug Discov Ther 2025; Birk et al.).

WHY ARE RESEARCHERS INTERESTED?

Researchers are mainly interested in SS-31 for conditions tied to poorly functioning mitochondria — muscle strength and fatigue in rare genetic diseases (Barth syndrome and mitochondrial myopathy), plus early-stage interest in eye health (dry age-related macular degeneration). It is not shown in this data to be broadly effective for general 'anti-aging' or fat loss claims sometimes seen online.

WHAT DO HUMAN STUDIES SHOW?

The clearest human trial was a small, 12-patient crossover study (where each patient got both the real drug and a placebo at different times, in random order) in people with Barth syndrome. It found SS-31 was NOT better than placebo for walking distance or fatigue scores, though people's leg muscle strength did improve later during an open-label follow-up phase where everyone knew they were getting the real drug (FDA label). A larger, 218-person trial (called MMPOWER-3) in a different condition — mitochondrial myopathy — found no meaningful benefit at all on walking distance or fatigue after 24 weeks, a clear negative result (Karaa et al., Neurology 2023). Despite mixed results, the FDA approved it in 2025 based on the muscle strength improvement seen later in the Barth syndrome study, though this was controversial — reportedly, nearly a dozen FDA reviewers were against approving it (Reuters, Nov 2025).

ANIMAL RESEARCH

The source data does not detail specific animal studies for SS-31 — the summarized research is centered on the human clinical trials described above and mechanistic/biochemical explanations rather than animal experiments.

SIDE EFFECTS

The most common problems were reactions right where the shot was given — nearly all patients on the drug had some redness, and about 3 out of 4 had pain at the injection site (compared to fewer people on placebo). Many people also developed a temporary rise in a type of white blood cell called eosinophils, which usually went away over time. There's a warning about possible serious allergic reactions, meaning patients shouldn't try the drug again if they have one (FDA label). The larger 218-person study found it was generally well tolerated with mostly mild-to-moderate side effects (Karaa 2023).

EXPERIMENTAL RESEARCH DOSES

The FDA-approved regimen is 40 mg given once daily as a shot under the skin. It's absorbed very efficiently (about 92% gets into the bloodstream), reaches peak levels within half an hour to an hour, and doesn't build up much in the body over time. People with kidney problems end up with more of the drug in their system (FDA label). This is strictly the dose studied in official clinical research, not a usage suggestion.

WHAT IS THE RESEARCH COMMUNITY SAYING?

SS-31 has a passionate but split community, especially among people with chronic fatigue syndrome (ME/CFS) and long-COVID looking for energy improvements. On r/cfs, one detailed personal account described major boosts in mental clarity and stamina at very low starting doses (500 micrograms), but also reported the effects being unpredictable and sometimes triggering worse fatigue crashes and insomnia at higher doses (Reddit r/cfs). Other users report no benefit at all after trying it for 10 days at what they considered an adequate dose, pushing back against enthusiastic online hype (Reddit r/cfs). It's frequently discussed alongside another peptide called MOTS-c as a mitochondria-focused stack. A commonly repeated (and unverified) online claim is that SS-31 'restores full energy production' in aging cells based on animal research — this goes well beyond what the human clinical trials actually showed, where two major trials failed to beat placebo on their main goals.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community reports vary widely — some describe starting as low as 500 micrograms per dose and titrating up slowly, while others reference doctor-suggested doses in the 10-30 mg range spread over a 4-week period, and one online poster described a personal routine at 8 mg per dose citing '0.5 mg per kg of body weight' as a rule of thumb (Reddit r/cfs; Reddit r/Peptides German thread). Some vendor-oriented posts describe daily dosing of 40 mg for 8-12 weeks, closer to the clinically studied regimen (Reddit r/Peptides). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

SECTION 09

Neuromuscular / Vascular

3
COMPOUNDS

Peptides and small molecules studied for effects on muscles, nerves, and blood vessels.

Alprostadil · No. 85

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
20 mcg	$100	$500

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Alprostadil is not a peptide at all — it's a lab-made version of a natural body chemical called prostaglandin E1, a type of fatty signaling molecule (not a chain of amino acids). It's sold under names like Caverject, Edex, MUSE, and Prostin VR Pediatric, and is used for very different purposes depending on the form: helping men get erections, or keeping a crucial blood vessel open in newborn babies with certain heart problems (Prostin VR label).

WHAT DOES IT DO?

Think of alprostadil as a chemical relaxant for blood vessel walls. It attaches to specific docking spots (receptors) on cells and tells the muscles lining blood vessels to loosen up, letting more blood flow through. In the penis, this widens the blood vessels and relaxes tissue, producing an erection. In newborns, it keeps a natural blood vessel (that should normally close after birth) open a bit longer, which can be lifesaving if the baby has certain heart defects (Caverject label).

WHY ARE RESEARCHERS INTERESTED?

The main areas of proven interest are heart/blood vessel health, specifically erectile dysfunction and keeping a critical vessel open in newborns with congenital heart problems. The source data does not support broader claims about general 'vascular health' benefits beyond these two specific, well-studied uses.

WHAT DO HUMAN STUDIES SHOW?

In three big multi-center trials, injecting alprostadil directly into the penis produced a clear dose-response effect (meaning higher doses worked better, up to a point) and helped men regardless of the underlying cause of their erectile problems (NEJM 1996). A different delivery method — a small pellet inserted into the urethra (the tube urine passes through) — was also tested in randomized trials and found effective (NEJM 1997; Br J Urol 1998). For newborns, decades of real-world clinical use back its ability to keep the ductus arteriosus (a blood vessel babies need open for certain heart defects) from closing (Prostin VR label).

ANIMAL RESEARCH

Some early lab work showed the drug could relax human penile tissue samples in a dish, and separate experiments in monkeys showed it increased blood flow to that area in a dose-dependent way (Caverject label).

SIDE EFFECTS

For the penile injection form, the most common issue is pain at the injection site (about 1 in 3 people), and less commonly a longer-than-normal erection lasting 4-6 hours (about 1 in 25 people) or an emergency-level erection lasting over 6 hours called priapism (about 4 in 1,000 people). Scarring of penile tissue happens in roughly 3 in 100 people overall. It shouldn't be used by people with certain blood disorders (like sickle cell disease), blood cancers, or penile scarring conditions (Caverject label). For newborns getting the IV form, there's a serious warning about breathing pauses (apnea), affecting about 1 in 10 babies, especially very small ones, usually within the first hour of treatment — plus fever, flushing, slow heart rate, and in rare cases seizures (Prostin VR label).

EXPERIMENTAL RESEARCH DOSES

For erectile dysfunction, studies tested doses from 2.5 to 20 micrograms injected directly into the penis. The drug is broken down very fast by the lungs — about 80% is cleared in a single pass through them — which is why continuous IV dosing is needed for the newborn heart-vessel use rather than a single shot. About 90% of a given dose leaves the body through urine within 24 hours (Caverject label). These figures are from official clinical research and prescribing information, not usage recommendations.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Community discussion is dominated by men managing erectile dysfunction, often on urology-focused forums and patient community boards (such as Prostate Cancer UK's forum, since many users start alprostadil after prostate surgery). People commonly describe the injection as intimidating at first but effective, with several describing the effect as a 'game changer' once the right dose is found — with one person noting a 2.5 microgram dose gave a firm erection lasting over an hour (Prostate Cancer UK community forum). Many users compare different brands (Caverject vs. Viridal Duo) and dosing strategies, such as using only part of a pre-measured dose to fine-tune the effect and avoid overly long erections. A common theme is trial-and-error dose-finding under medical supervision, since too much can cause an uncomfortably long erection.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Forum posts describe starting doses as low as 2.5 micrograms, with some users needing up to 10 micrograms or using only a fraction of a pre-filled 10-microgram cartridge to get a comfortable result lasting about an hour (Prostate Cancer UK community forum). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Botulinum Toxin Type A · No. 86

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
100 IU	$100	$500

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Botulinum toxin type A (known by brand names like BOTOX) isn't a synthetic peptide — it's a natural protein toxin made by a bacteria called Clostridium botulinum. It's purified and used in extremely tiny, carefully measured amounts as medicine and for cosmetic wrinkle treatment. It's a fairly large, complex protein — much bigger than most lab-made peptides — built from two connected chains (BOTOX label; Monash et al. 2025).

WHAT DOES IT DO?

Imagine nerves talking to muscles by sending chemical text messages (a signal chemical called acetylcholine) that say 'contract now.' Botulinum toxin sneaks into the nerve ending and cuts up one of the proteins needed to send that message, so the muscle stops getting the 'contract' signal — it temporarily relaxes. Over weeks to months, the nerve grows new connections and the effect wears off (BOTOX label; Monash et al. 2025).

WHY ARE RESEARCHERS INTERESTED?

This is a very well-studied drug used for several proven purposes: reducing wrinkles (cosmetic), calming an overactive bladder, preventing chronic migraines, easing muscle spasticity, treating cervical dystonia (a neck muscle condition), stopping excessive underarm sweating, and correcting crossed eyes or eyelid spasms. Some newer, exploratory research is looking into psychiatric and digestive uses, but those are described as still investigational, not established.

WHAT DO HUMAN STUDIES SHOW?

Botulinum toxin has been tested in numerous controlled human trials across all its approved uses. The best-known large study, called the PREEMPT program, pooled results across trials and supported using it to prevent chronic migraines (Headache 2010). It's also been studied for antibody resistance — meaning some people's immune systems make antibodies against the toxin that can make it stop working over time, though this was found in only about 1% of patients treated for limb spasticity, and it wasn't a very reliable way to predict who would stop responding to treatment (Mathevon et al. 2019). The label specifically states that non-approved uses like everyday migraine prevention (as opposed to chronic migraine) or sweating outside the underarms are not proven to work.

ANIMAL RESEARCH

The source data doesn't detail specific animal studies — the summarized research focuses on the toxin's molecular mechanism and human clinical trial results.

SIDE EFFECTS

There's a serious warning that the toxin's effect can sometimes spread beyond the injection site, causing general weakness, double vision, drooping eyelids, trouble swallowing, or even breathing difficulty — rare but potentially life-threatening, with the highest risk in children treated for muscle spasticity. It shouldn't be used by people allergic to it or with an infection at the injection site. Specific side effects depend on why it's being used — for example, urinary tract infections happen in about 18% of people using it for overactive bladder (versus 6% on placebo), and drooping eyelids happen in about 1 in 5 people treated for eye-muscle spasms (BOTOX label). In extremely large amounts, it's actually one of the most lethal substances known, though the tiny medical doses used are far below dangerous levels (Monash et al. 2025).

EXPERIMENTAL RESEARCH DOSES

The drug is given by injection directly into muscle, bladder tissue, or skin, depending on the use. Interestingly, at the tiny doses used medically, it can't even be detected in the blood with current lab tests — so scientists can't measure a normal half-life or absorption rate the way they can for most drugs. Instead, the effect's duration depends on how long it takes nerves to regrow their connections, usually 3-6 months for cosmetic use (BOTOX label). 'Units' are specific to each brand and can't be swapped between products — this is technical research information, not usage guidance.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Cosmetic Botox has an enormous, very normalized online discussion presence, especially on beauty-focused subreddits like r/beauty. People commonly share their 'unit count' and how long results lasted — with wide variation, from about 2.5 months for a lighter forehead treatment to 4-5 months for higher doses (Reddit r/beauty). A recurring theme is that results 'wear off differently for everyone,' with some attributing faster fading to metabolism or skincare habits. People frequently discuss comparing brands (Botox vs. Dysport), with many saying they work similarly but at different price points. Preventative use — starting Botox in one's late 20s or early 30s before wrinkles fully form — is a widely discussed and somewhat debated cosmetic trend.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

For forehead treatment, community reports commonly describe 10-20 units for lighter results and 30-40 units for stronger, longer-lasting effects, with return visits typically every 3-5 months (Reddit r/beauty). These figures apply to the cosmetic community context specifically (medical dosing for conditions like migraine or bladder issues follows separate, clinically defined protocols). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

SNAP-8 · No. 87

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
10 mg	$40	$200

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

SNAP-8 is a lab-made peptide — a short chain of 8 amino acids — designed for use in cosmetic skincare products, not as a medicine. It's a longer, chemically modified version of another cosmetic peptide called Argireline (acetyl hexapeptide-8), sometimes marketed as a gentler, topical alternative to Botox (PubChem CID 86080331; Pintea et al. 2025).

WHAT DOES IT DO?

The theory behind SNAP-8 is that it competes with a natural protein your nerve cells use (called SNAP-25) to trigger muscle contraction — similar in concept to how Botox works, but far weaker and without actually destroying anything. If it worked as intended, it would gently 'jam the signal' telling tiny facial muscles to contract, in theory softening the look of expression lines (US Patent 8,865,651 B2; Pintea et al. 2025).

WHY ARE RESEARCHERS INTERESTED?

The interest here is entirely in skin health/cosmetic anti-wrinkle effects — there's no other area of interest supported by the profile data.

WHAT DO HUMAN STUDIES SHOW?

There is essentially no dedicated published human research on SNAP-8 itself — a search of the major medical research database (PubMed) found no studies specifically about it (PubMed search). What data exists comes from studying its 'parent' molecule, Argireline: one randomized, placebo-controlled study in China found about 49% of people reported improvement in wrinkles versus 0% on placebo (Wang et al. 2013). However, this can't be assumed to transfer directly to SNAP-8. Even more concerning, a review of Argireline's actual skin penetration found only about 0.22% of the peptide applied to skin actually got through the outer skin layer over 24 hours, suggesting these peptides probably work on the very surface of the skin rather than reaching muscle at all — undermining the whole 'mini-Botox' idea (Zdrada-Nowak et al. 2025).

ANIMAL RESEARCH

No animal studies for SNAP-8 are described in the provided source data.

SIDE EFFECTS

No dedicated human safety data specific to SNAP-8 exists in the sources reviewed. Applied to skin as a cosmetic (topical), similar related peptides are generally described as well tolerated without major problems — but there is a documented case where injecting (rather than applying topically) a similar peptide caused a bacterial skin infection, a reminder that these products are meant for the skin's surface, not for injection (Zdrada-Nowak et al. 2025).

EXPERIMENTAL RESEARCH DOSES

There's no established half-life, absorption rate, or standard clinical dose for SNAP-8 in the available published research. It's typically formulated into skincare products at a concentration of about 0.05% (Pintea et al. 2025). This is a cosmetic-industry standard, not a scientifically validated therapeutic dose.

WHAT IS THE RESEARCH COMMUNITY SAYING?

SNAP-8 shows up mostly in skincare-focused online spaces (like r/45PlusSkincare and r/beautyph) rather than performance or biohacking communities. Users generally describe it as part of a DIY serum mix, often combined with another popular peptide, GHK-Cu, and applying it twice daily — several report smoother, more hydrated-looking skin after weeks of consistent use, describing it (somewhat jokingly) as 'Botox in a bottle' (Reddit r/beautyph). Others report positive but gradual results that take time to notice, aligning with the more modest topical-only mechanism described in the scientific literature (Reddit r/45PlusSkincare). There's little controversy or safety concern discussed, likely because it's used topically as a cosmetic rather than injected — though the scientific concern (that it may barely penetrate the skin) is a mismatch with enthusiastic anecdotal reports.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community discussion focuses on topical concentrations and mixing ratios rather than injectable dosing. A commonly described DIY approach is reconstituting SNAP-8 powder with water and mixing roughly 0.5 mL of the reconstituted peptide solution into about 35 mL of a base serum, applied once or twice daily (Reddit r/beautyph). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

SECTION 10

Melanocortin / Receptor

2
COMPOUNDS

Peptides studied for their effects on pigmentation and the brain's melanocortin signaling pathway.

Melanotan II · No. 88

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
5 mg	$35	$175
10 mg	$40	$200

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

Melanotan II (MT-II or MT-2) is a lab-made, ring-shaped (cyclic) peptide made of 7 amino acids, designed to mimic the natural skin-tanning hormone alpha-MSH but with a stronger, broader effect. It was developed in research labs studying skin pigmentation (PubChem CID 92432; Dorr et al., Life Sci 1996).

WHAT DOES IT DO?

MT-II works like a master key that fits several different locks (receptors) in the body, not just one. It turns on tanning by activating skin pigment cells, but it also affects brain and spinal cord receptors tied to sexual arousal, yawning, and appetite — meaning it can cause a tan, but also unintended side effects like spontaneous arousal or reduced hunger, because it's hitting more targets than just skin cells (King et al.).

WHY ARE RESEARCHERS INTERESTED?

Two areas of genuine research interest: skin tanning/photoprotection, and improving sexual arousal or erectile function through its effect on brain receptors. It has also generated some anecdotal interest in appetite suppression, though this is a side effect of the mechanism rather than a well-studied primary benefit.

WHAT DO HUMAN STUDIES SHOW?

A tiny early-stage study with just 3 people showed that repeated small shots caused noticeable tanning, along with nausea, sleepiness, and unwanted erections lasting 1-5 hours (Dorr 1996). A slightly larger study in 20 men with erectile dysfunction found the drug produced erections in 17 of the 20 men and increased sexual desire more often than a placebo (Wessells et al. 2000). Importantly, there have been no larger, later-stage human trials (the kind normally needed before a drug is approved), and no long-term human safety data exists.

ANIMAL RESEARCH

Studies in rodents support the idea that one of MT-II's target receptors (MC4R) is responsible for triggering erections, though scientists still disagree about how much a second receptor (MC3R) contributes — this part of the science remains unsettled (King et al.).

SIDE EFFECTS

Commonly reported: nausea, facial flushing (redness), sleepiness, and spontaneous erections. More seriously, there are documented case reports of dangerous reactions including a body-wide 'fight-or-flight' overdrive with muscle breakdown and kidney problems after a large dose (6 mg) (Nelson et al. 2012); painful, prolonged erections requiring emergency treatment or surgery (Dreyer et al. 2019; Mallory et al. 2021); and unusual moles with four reported cases of skin cancer (melanoma) appearing during or shortly after use — though it's not proven the drug directly caused the cancers (Habbema et al. 2017). Since it's typically bought from unregulated internet sellers, the actual dose and purity of any given product is uncontrolled and unpredictable.

EXPERIMENTAL RESEARCH DOSES

In the small early human study, doses of 0.01 to 0.03 mg per kilogram of body weight were given as shots under the skin, repeated five times over the study (Dorr 1996). No official half-life or absorption data for humans has been published. This information comes strictly from published research and is not a usage suggestion.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Melanotan II has one of the largest and longest-running online communities of any peptide discussed here, spanning tanning-focused subreddits (like r/Melanotan2) and bodybuilding/steroid forums. Long-time users describe a fairly consistent pattern: initial nausea and facial flushing that some manage with antihistamines, followed by a noticeably deeper tan within 1-3 weeks, plus increased libido that many mention almost as a side benefit (Reddit r/steroids). New moles or darkened freckles are consistently reported and taken somewhat seriously, with some users describing regular dermatologist skin checks as a precaution (Reddit r/Biohackers). A more unusual and clearly unproven thread of discussion involves people using very low 'microdoses' hoping for social confidence or anxiety-reduction benefits, tied to speculation about oxytocin-like brain effects — this is explicitly experimental and not supported by any clinical research reviewed. Given that MT-II is illegal to sell for human use in several countries, some community members flag legal and purity concerns around grey-market vials.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Widely discussed starting doses are around 250 micrograms per injection, with many users working up to 500 micrograms to 1 mg daily during an initial 'loading phase' meant to build a tan quickly, then dropping to 250-500 micrograms once or twice a week for maintenance (Reddit r/steroids; Reddit r/Melanotan2). Some report much lower 'microdoses' of 40-75 micrograms for non-tanning, exploratory uses (Reddit r/Biohackers). These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

PT-141 · No. 89

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
10 mg	$40	$200

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

PT-141 (also called bremelanotide, brand name Vyleesi) is a lab-made peptide of 7 amino acids, chemically related to Melanotan II — it's actually one of the natural breakdown products (a metabolite) that forms when MT-II is processed by the body. It was specifically developed and FDA-approved as a treatment for low sexual desire in women (FDA Vyleesi label).

WHAT DOES IT DO?

Like MT-II, PT-141 activates several of the same 'melanocortin' receptors scattered around the body and brain. Scientists don't fully know exactly how this leads to increased sexual desire — the FDA label itself says the mechanism is unknown — but it's believed to work through brain pathways rather than acting directly on blood flow the way erectile dysfunction pills like Viagra do (FDA label; King et al.).

WHY ARE RESEARCHERS INTERESTED?

The primary, well-established area of interest is treating hypoactive sexual desire disorder (HSDD, or persistently low sexual desire) in premenopausal women. There's also earlier-stage research interest in erectile function in men, though this use is not FDA-approved.

WHAT DO HUMAN STUDIES SHOW?

Two large, well-designed twin trials (called RECONNECT, involving 1,267 women total, lasting 24 weeks) found that PT-141 improved measures of sexual desire and reduced related distress compared to placebo, with results considered statistically real but modest in size — meaning the improvement was measurable but not dramatic for most women (Kingsberg et al., Obstet Gynecol 2019). In a longer follow-up study, only about 40% of participants stuck with the extended year-long open-label phase, suggesting many women didn't feel it was worth continuing (Simon et al.). Separately, in men with erectile dysfunction, an earlier study using a nasal spray version showed improved erection quality and questionnaire scores, but this use was never approved by the FDA (King et al.).

ANIMAL RESEARCH

In rats, the peptide activates a specific brain area (the paraventricular nucleus) and triggers erections, supporting the idea that its effects run through the brain rather than directly on blood vessels (King et al.).

SIDE EFFECTS

The most common issue is nausea, affecting 40% of users (with about 8% stopping treatment because of it), plus flushing (20%), injection-site reactions (13%), headache (11%), and vomiting (5%). A notable side effect is patchy darkening of skin — on the face, gums, or breasts — that happened to about 1% of typical users but jumped to 38% in people who used it every day for 8 days straight, and this darkening isn't always reversible. It can also cause a small, temporary rise in blood pressure alongside a slower heart rate, so it shouldn't be used by people with uncontrolled high blood pressure or heart disease (FDA label). No deaths or new safety concerns emerged over a year of open-label follow-up (Simon et al.).

EXPERIMENTAL RESEARCH DOSES

The FDA-approved dose is 1.75 mg given as a shot under the skin, absorbed almost completely (near 100% bioavailability), reaching peak blood levels around 1 hour after injection, and clearing from the body with a half-life of roughly 2.7 hours. People with moderate-to-severe kidney problems end up with 1.5 to 2 times more of the drug in their system (FDA label). This is the officially studied clinical dose, not a usage recommendation.

WHAT IS THE RESEARCH COMMUNITY SAYING?

PT-141 has an active online community, particularly among men on forums like r/Peptides, despite the drug only being FDA-approved for women. Detailed personal write-ups describe a fairly predictable pattern: nausea and intense facial/body flushing on the first try (especially at higher doses), followed hours later by strong, spontaneous erections and heightened sexual arousal, with one detailed account describing the overall experience as 'amazing' when it worked well, but noting the timing and intensity of effects were unpredictable (Reddit r/Peptides). A commonly shared tip is starting with a very low dose (0.5 mg or less) to gauge tolerance for nausea and flushing before increasing, and being cautious about combining it with erectile dysfunction pills like Cialis, since some users report uncomfortable or overly intense erections when stacking the two. Users also note that, unlike prescription ED pills with a clear on/off timing, PT-141's onset (roughly 2-4 hours) and duration are harder to predict.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community reports commonly describe a first dose around 1 mg being 'too much' for many people, with 0.5 to 0.75 mg often mentioned as a gentler starting point that still produces noticeable effects with milder side effects (Reddit r/Peptides). Some experienced users report using up to the officially studied dose range (around 1.75 mg), matching the FDA-approved amount. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

SECTION 11

Combination Products

8
COMBINATIONS

Pre-mixed multi-peptide blends explained in plain English, covering what's in them, why they're combined, and what the research community says about using them together.

Wolverine Blend (BPC-157 + TB-500) · No. 90

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
BPC-157 2 mg + TB-500 2 mg	$40	$200
BPC-157 5 mg + TB-500 5 mg	$50	$250
BPC-157 10 mg + TB-500 10 mg	$80	$400

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

The Wolverine Blend is a mix of two lab-made peptides — tiny chains of amino acids that act like signals in your body — put into one vial: BPC-157 and TB-500. The usual version is a 20 mg vial with 10 mg of each, so a 1:1 ratio, though different sellers make it in different strengths (vendor spec). It's nicknamed after the comic-book character Wolverine because of claims that it makes injuries heal super fast.

WHAT DOES IT DO?

The idea behind combining them is that BPC-157 works like a local repair crew — it shows up right where an injury is and helps grow new blood vessels and calm inflammation (BPC-157 wound-healing review). TB-500 (based on a natural protein fragment called thymosin beta-4) works more like a coordinator that travels through the whole body, helping cells move to where repairs are needed (thymosin β4 review). Put together, the theory is that one handles the injury site while the other supports healing everywhere else. Important: this reasoning is borrowed from studies of each peptide alone — it isn't proof that combining them works better.

WHAT DO STUDIES SHOW?

There's actually one real study that tested the combination directly, which is rare for peptide blends. Scientists cut the Achilles tendon in rats and compared BPC-157 alone, TB-500 alone, and the two together. They found the combination did NOT do better than either peptide by itself (Biçer et al., Jt Dis Relat Surg 2026). No studies in humans exist for the combination, and no other animal studies have looked at the pair together.

SIDE EFFECTS

Neither peptide is an approved medicine, so there isn't good safety data at these doses in people. Because both peptides encourage new blood vessel growth, there's a theoretical worry about accidentally feeding undetected tumor growth, though this hasn't been proven. The most commonly reported issue is mild irritation, redness, or soreness where the shot is given. Nobody has studied whether combining the two creates safety problems beyond what each has alone.

EXPERIMENTAL RESEARCH DOSES

Researchers studying BPC-157 by itself have generally used small daily amounts given under the skin. TB-500 has been studied with less frequent, larger doses because it stays in the body longer. There is no official studied dose for the combined product — vendor suggestions come from people's personal experience, not clinical trials. This information is purely educational, not a suggested amount to use.

WHAT IS THE RESEARCH COMMUNITY SAYING?

The 'Wolverine Stack' nickname reportedly came from Reddit around 2018–2019, when users compared their recovery to the mutant healing power of the comic character (The Peptide File). It's now one of the most talked-about peptide combos online, with long, detailed self-tracking posts on Reddit. People report using it for torn hamstrings, ACL/meniscus surgery recovery, shoulder and elbow tendon problems, and plantar fasciitis, often describing less pain and swelling within one to three weeks and feeling 'back to normal' faster than expected (r/Biohack_Blueprint experience; r/bpc_157 journal; r/PlantarFasciitis log). Reported side effects mentioned in these threads are generally mild — brief warmth or lightheadedness right after the shot, occasional headache, or mild grogginess with nasal-spray TB-500 (r/workout thread). One detailed independent write-up bluntly points out that despite thousands of glowing testimonials, there is not one published human study of the two peptides used together, and cautions that improvement could be from rest, physical therapy, or time rather than the peptides themselves (The Peptide File). The most-discussed controversy is exactly this gap — strong anecdotal enthusiasm versus zero human trial evidence.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

In online discussions, people commonly report starting BPC-157 around 250 micrograms once or twice a day and TB-500 around 2 to 2.5 milligrams once or twice a week, often for a loading period of about 4 to 6 weeks. Some report going as high as 500 to 750 micrograms of each peptide daily for a couple of weeks for more acute injuries (r/bpc_157_wolverine_results; Underground_Biohacking_protocol_summary). The lowest amounts discussed are around 200-250 micrograms combined per day, while some more aggressive posters describe totals near 1-1.5 milligrams per day. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

GLOW Blend (BPC-157 + GHK-Cu + TB-500) · No. 91

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
BPC-157 10 mg + GHK-Cu 50 mg + TB-500 10 mg	$100	$500

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

GLOW is a three-peptide mix usually sold as a 70 mg vial containing 50 mg of GHK-Cu (a copper-binding peptide), 10 mg of BPC-157, and 10 mg of TB-500 — a 5:1:1 ratio (GLOW protocol reference). Different sellers use somewhat different ratios and total amounts.

WHAT DOES IT DO?

GHK-Cu is added on top of the BPC-157/TB-500 pair because it's linked to building collagen (the protein that keeps skin firm) and helping skin cells repair themselves (Pickart & Margolina, IJMS 2018). So the pitch is: BPC-157 heals locally, TB-500 helps recovery throughout the body, and GHK-Cu improves skin and tissue quality — three different jobs working together. But this is a guess built from research on each peptide separately; nobody has actually tested how all three behave when combined.

WHAT DO STUDIES SHOW?

No published research — human or animal — has tested this exact three-peptide mixture. The closest related evidence is a rat tendon study of just BPC-157 and TB-500 together (without GHK-Cu), which found the combination was no better than either peptide alone (Biçer et al. 2026). So the actual three-way combination has zero direct scientific support.

SIDE EFFECTS

Adding 50 mg of GHK-Cu brings in a copper-exposure question that the two-peptide Wolverine blend doesn't have — nobody has closely studied what that amount of injected copper does over time. Skin/injection-site irritation is a commonly reported issue with copper peptides specifically. Since three different peptides are combined, any extra or overlapping risks from mixing them have not been studied.

EXPERIMENTAL RESEARCH DOSES

There is no clinical dosing standard for this exact blend since it hasn't been formally studied as a combination. Any dosing numbers come from the separate research literature on each individual peptide, not from testing the three-part mixture together.

WHAT IS THE RESEARCH COMMUNITY SAYING?

GLOW is extremely popular in peptide communities, especially among people interested in skin, hair, and anti-aging outcomes as well as tissue repair. Reddit threads describe smoother, firmer-feeling skin, improved wrinkles, and hair regrowth after several weeks of use (r/USPeptides experience thread; r/Aging thread; r/bpc_157 hair growth report). A detailed critique post argues that combining three peptides with limited individual human evidence doesn't create strong combined evidence — it just puts three weakly-proven compounds in the same syringe, and recommends dosing each separately for better control (r/PeptideProgress breakdown). Commonly reported side effects include fatigue, brain fog, and low blood pressure at higher GHK-Cu doses, which some posters attributed to 'copper overload' (r/bpc_157 fatigue report); mild nausea and injection-site stinging are also mentioned. Debate continues over the correct ratio (50/10/10 is called the 'original' by some long-time posters) and whether GHK-Cu chemically degrades the other peptides when pre-mixed in one vial — most posters conclude this fear is overstated (r/BodyOptimization discussion).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community protocols commonly describe daily doses around 2 mg of GHK-Cu paired with roughly 400-500 micrograms each of BPC-157 and TB-500, dosed once a day for about 4 to 8 weeks before taking a break (Biohack Labs dosage guide; r/PeptideGuide reconstitution guide). Lower-end posters mention around 100-200 micrograms of GHK-Cu with proportionally smaller amounts of the others; higher-end posters describe going up to 3-3.5 mg GHK-Cu daily. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

COMBINATION PRODUCTS · NO. 92

KLOW Blend (BPC-157 + GHK-Cu + TB-500 + KPV) · No. 92

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
BPC-157 10 mg + GHK-Cu 50 mg + TB-500 10 mg + KPV 10 mg	$110	$550

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

KLOW is GLOW (BPC-157 + GHK-Cu + TB-500) with a fourth peptide, KPV, added in. A common version is an 80 mg vial: 50 mg GHK-Cu, 10 mg BPC-157, 10 mg TB-500, and 10 mg KPV (Cenexa Labs spec). KPV is a small piece cut from a larger natural hormone called alpha-MSH.

WHAT DOES IT DO?

KPV is added because it's been linked to calming down inflammation by blocking a cell-signaling pathway called NF-κB (Brzoska et al., Endocr Rev 2008; KPV anti-inflammatory data). The theory is that reducing inflammation might help the other three peptides do their repair work better. Just like with GLOW, this reasoning is theoretical and pieced together from separate single-peptide studies — no one has tested whether this actually happens when all four are combined.

WHAT DO STUDIES SHOW?

No research — human or animal — has tested this specific four-peptide mixture. Every piece of supporting evidence comes from studying each peptide completely on its own, in different experiments, on different research questions.

SIDE EFFECTS

KLOW carries the same copper-exposure question as GLOW because of the 50 mg GHK-Cu dose. KPV affects the immune system broadly, and mixing an anti-inflammatory peptide with peptides meant to promote tissue repair hasn't been checked for whether it might interfere with the normal inflammation phase your body needs early in wound healing. Combining four separate compounds into one vial also raises practical concerns about sterility and getting an accurate dose, and there's no data on how the mixture behaves in the body over time.

EXPERIMENTAL RESEARCH DOSES

No official studied dose exists for the four-peptide mixture. Any numbers come only from research on the individual peptides tested separately, not from any trial of the combined product.

WHAT IS THE RESEARCH COMMUNITY SAYING?

KLOW discussions are common on Reddit peptide forums, largely overlapping with GLOW's audience but with more emphasis on anti-inflammatory and 'gut healing' claims tied to KPV, plus frequent mentions of pairing it with weight-loss drugs like semaglutide or tirzepatide to reduce nausea or support skin tightening during rapid weight loss (Peptide Schedule KLOW guide). One detailed reference notes this GLP-1 companion use is 'entirely anecdotal' with no clinical evidence behind it. Reddit threads mostly cover dosing math and reconstitution rather than dramatic before/after stories (r/BodyHackGuide dosage thread; r/Peptidesource dosage thread). People frequently disagree about correct ratios and whether GHK-Cu degrades the other three peptides sitting together in the same vial over weeks of storage, though most experienced posters say this isn't a real problem within a typical 20-40 day usage window (r/BodyOptimization discussion).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community protocols commonly describe around 2 mg total blend per injection, once daily, which breaks down to roughly 400-500 micrograms each of BPC-157, TB-500, and KPV alongside the larger GHK-Cu dose (Peptide Mind KLOW guide; r/Peptidesource dosage thread). Cycles are commonly described as 8-12 weeks on with about 4 weeks off. Reported ranges span from about 2 mg to 4 mg total daily, with some posters citing lower-end ranges as low as 2-4 mg overall and higher-end reports up to 10-20 mg discussed by a minority. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

CagriSema Blend (Cagrilintide + Semaglutide) · No. 93

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
Cagrilintide 5 mg + Semaglutide 5 mg	$66	$330

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

CagriSema combines two lab-made hormone-mimicking peptides: cagrilintide, which copies a natural hormone called amylin, and semaglutide, the same active ingredient found in Ozempic and Wegovy. Research versions typically mix them 1:1 by weight, matching the 2.4 mg/2.4 mg ratio Novo Nordisk uses in its official drug trials (REDEFINE 2, NEJM 2025).

WHAT DOES IT DO?

Semaglutide works on the GLP-1 pathway, a hormone system that tells your brain you're full. Cagrilintide works on a different but related pathway (amylin) that also affects fullness and how fast your stomach empties. The idea is that hitting two separate 'I'm full' signals at once produces more weight loss than hitting just one. Unlike most peptide blends, this rationale isn't just a guess — it's backed by real combination trials on the actual manufactured drug.

WHAT DO STUDIES SHOW?

This is one of the best-studied peptide combinations in existence. A large Phase 3 trial called REDEFINE 2 found people lost 13.7% of their body weight on average compared to 3.4% on placebo over 68 weeks in people with obesity and type 2 diabetes (NEJM 2025). Another trial, REIMAGINE 2, found the combination beat semaglutide alone (Novo Nordisk). Important catch: all of this strong evidence is for Novo Nordisk's official manufactured product — not for research-chemical vials bought online, which have unverified purity and contents.

SIDE EFFECTS

Stomach-related side effects were common in trials — about 72.5% of people on the combination had some kind of gastrointestinal issue versus 34.4% on placebo. If someone is also taking insulin or certain diabetes pills, there's a real risk of blood sugar dropping too low. Nausea, vomiting, and dehydration are expected and can add up when combining two drugs that both affect the gut.

EXPERIMENTAL RESEARCH DOSES

In the official research, both peptides were slowly increased together over many weeks — starting very low and stepping up roughly every four weeks until reaching 2.4 mg of each per week, given as a single weekly shot under the skin.

WHAT IS THE RESEARCH COMMUNITY SAYING?

CagriSema has active discussion communities, including dedicated Reddit forums for clinical trial participants (r/CagriSema; r/Semaglutide REDEFINE-1 updates). People in trials report large weight losses — commonly 40-90 pounds over many months — and describe losing 'food noise' or cravings almost entirely. A very common complaint is fatigue, sometimes described as severe enough that people switch to other GLP-1 drugs like tirzepatide instead (r/CagriSema fatigue thread; r/cagrilintide fatigue mention). Constipation and dehydration are also frequently mentioned, generally described as manageable with more water and electrolytes. A widely discussed 2026 trial update (REDEFINE 4) found tirzepatide slightly outperformed CagriSema head-to-head for weight loss, which surprised many in the community who had expected CagriSema to be the stronger drug (r/GLP1ResearchTalk discussion).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community and clinical-style sources describe a slow step-up schedule: starting around 0.25 mg of each peptide weekly, then roughly doubling every four weeks — 0.5 mg, then 1.0 mg, then 1.7 mg — before reaching a common 'maintenance' dose of 2.4 mg of each per week by around week 17 (CagriSema dosing guide; Body Pharm dosing guide). Some people online mention going slower with 6-week steps instead of 4-week steps if side effects are strong, and a minority mention exploring doses above 2.4 mg. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

CJC-1295/Ipamorelin Blend (CJC-1295 No DAC + Ipamorelin) · No. 94

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
CJC-1295 No DAC 5 mg + Ipamorelin 5 mg	$50	$250
CJC-1295 No DAC 10 mg + Ipamorelin 10 mg	$65	$325

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

This blend pairs two peptides that both push the body to release more of its own growth hormone. CJC-1295 (the 'No DAC' version, sometimes called modified GRF 1-29) copies a natural hormone called GHRH. Ipamorelin works on a completely different hormone switch called the ghrelin receptor. A standard vial has 5 mg of each, for 10 mg total, in a 1:1 ratio (vendor spec).

WHAT DOES IT DO?

Because the two peptides trigger growth hormone release through two different biological doorways, using them together is thought to produce a bigger growth hormone release than either one alone. Human research has shown that combining a GHRH-type peptide with a ghrelin-type peptide does boost growth hormone more than either alone (Leal-Cerro et al., Eur J Endocrinol 1995). But that finding is about the general class of peptides — it wasn't tested using this exact CJC-1295/ipamorelin pair, so applying it here is an extrapolation, not direct proof.

WHAT DO STUDIES SHOW?

No published study or registered clinical trial has tested this exact CJC-1295 (No DAC) + ipamorelin combination. Ipamorelin's effects as a stand-alone selective peptide have been documented (Raun et al. 1998), but the no-DAC version of CJC-1295 has very little published human data on its own, let alone combined with anything else.

SIDE EFFECTS

Keeping growth hormone and its related hormone IGF-1 elevated for long periods theoretically raises risks like insulin resistance, fluid retention (swelling), joint aches, and carpal tunnel-like symptoms in the wrist/hand. Using two growth-hormone-boosting peptides together plausibly makes these effects stronger, though this hasn't been formally tested. Neither peptide is approved by the FDA, and both are banned in competitive sports.

EXPERIMENTAL RESEARCH DOSES

There's no formally studied human dose for this exact combination. What has been studied is the broader concept of combining a GHRH-type peptide with a GHRP-type peptide, generally using small microgram-level doses given by injection under the skin.

WHAT IS THE RESEARCH COMMUNITY SAYING?

This is one of the most commonly discussed peptide stacks in fitness and biohacking communities, with detailed self-experiment logs on Reddit (r/Biohackers 2-month report; r/PeptideForum feedback thread). Commonly reported benefits include noticeably better sleep quality (often described as deeper sleep with vivid dreams), faster workout recovery with less soreness, modest strength gains over several weeks, and a slightly leaner-looking midsection. A frequently mentioned mild side effect is a brief warm 'flush' or tingling feeling for about 10 minutes right after injecting. Compared to less-selective growth hormone peptides, people report ipamorelin causes less appetite increase, which some prefer. Cycling patterns of several weeks on, then time off, are widely discussed, and many posters recommend blood testing IGF-1 levels before and after to check whether the peptides are actually working, since felt effects like better sleep can be hard to separate from other lifestyle changes.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

The most commonly reported doses in online discussions are around 100 to 300 micrograms of each peptide, taken once or twice daily, often timed before bed and sometimes also in the morning while fasted (r/Biohackers 2-month report; r/PeptideForum feedback thread). A common cycling pattern mentioned is 5 days on with 2 days off, run for several weeks to a few months. Some report going up to 375-400 micrograms each per dose over longer cycles. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

RetaCagri Blend (Retatrutide + Cagrilintide) · No. 95

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
Retatrutide 5 mg + Cagrilintide 5 mg	$80	$400

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

RetaCagri combines retatrutide, a peptide that activates three separate gut-hormone receptors at once (GIP, GLP-1, and glucagon), with cagrilintide, an amylin-hormone-mimicking peptide. Vials are typically mixed at a 1:1 weight ratio, though strengths vary widely by seller and aren't standardized.

WHAT DOES IT DO?

The claimed logic is that adding cagrilintide's amylin-based fullness signal on top of retatrutide's already-powerful triple-hormone action should push weight loss even higher than either peptide alone. Retatrutide by itself produced striking results, with people losing an average of 24.2% of their body weight at 48 weeks in one trial (Jastreboff et al., NEJM 2023), and cagrilintide has its own separate body of trial evidence (cagrilintide review). But this combination reasoning is entirely borrowed from separate research programs — nobody has tested retatrutide and cagrilintide given together.

WHAT DO STUDIES SHOW?

No published trial, registry study, or patent has tested retatrutide plus cagrilintide as a combination. The only real trial evidence for combining an amylin-type peptide with a gut-hormone peptide involves a completely different pairing — cagrilintide with semaglutide (branded CagriSema) — not retatrutide.

SIDE EFFECTS

Both peptides individually cause dose-related nausea, vomiting, and reduced appetite, so using them together is expected to make these stomach-related effects add up, with real risk of dehydration, mineral/electrolyte imbalances, and possibly excessive weight loss. Anyone also using insulin or certain diabetes medications faces increased risk of dangerously low blood sugar (GLP-1 adverse-effect review). Neither peptide is an approved medical product.

EXPERIMENTAL RESEARCH DOSES

There is no officially studied dose for using retatrutide and cagrilintide together. Individually, retatrutide has been studied at doses up to several milligrams weekly, and cagrilintide has trial data up to 2.4 mg weekly, but no research has established what happens when they're combined.

WHAT IS THE RESEARCH COMMUNITY SAYING?

This is an actively discussed stack on Reddit's retatrutide-focused communities, generally framed as an 'advanced' or 'aggressive' combination for people who've plateaued on retatrutide alone (r/Retatrutide_cagrilintide_thread; r/Retatrutide stacking thread). The common pattern described is starting retatrutide alone, getting it stable, and only adding cagrilintide later if appetite suppression fades or weight loss plateaus. People report that cagrilintide 'kicks in fast' for cravings — some describe taking a smaller dose and feeling cravings disappear within a couple of hours. Some posters push back on the idea of stacking at all, arguing it's simpler and safer to just raise the retatrutide dose or add a single well-studied companion drug instead. Reported downsides mirror each drug's individual profile: stomach upset, fatigue, and retatrutide's occasional skin-tingling sensation, managed by slow dose increases, hydration, and electrolytes (r/peptides4dummies_ overview).

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Community sources describe starting retatrutide low (around 1-2 mg weekly) and increasing to a commonly mentioned range of 4-10 mg weekly, then adding cagrilintide starting around 0.25-1 mg weekly and slowly raising it, with many people topping out around 2.4 mg weekly (Peptide Catalog stack guide; r/peptides4dummies_ overview). Some pre-mixed vendor vials use a 5:1 retatrutide-to-cagrilintide ratio. A few posters mention going as high as 3-4 mg retatrutide combined with roughly 0.6-0.8 mg cagrilintide per dose. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Semax/Selank Blend (Semax + Selank) · No. 96

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
Semax 10 mg + Selank 10 mg	$65	$325

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

This blend pairs two Russian-developed peptides: Semax, a small modified piece of a hormone called ACTH, and Selank, a synthetic version of a natural immune-system peptide called tuftsin. They're usually supplied as separate vials in matched amounts, commonly 5 mg/5 mg or 10 mg/10 mg, given either as an injection or as a nasal spray.

WHAT DOES IT DO?

The pitch is that Semax may boost brain function and focus (it's linked to a brain-growth protein called BDNF), while Selank may reduce anxiety. The idea is that combining a 'focus' peptide with a 'calm' peptide should balance each other out — sharper thinking without feeling wired or anxious. This reasoning comes from separate research on each peptide done mostly in Russian scientific literature, not from any study of the two used together.

WHAT DO STUDIES SHOW?

No study has tested Semax and Selank mixed or dosed together as a combination. One 2020 brain-imaging study did look at both peptides in the same research project, but each volunteer received only Semax, only Selank, or a placebo — never both together (Panikratova et al., Dokl Biol Sci 2020). Neither peptide is approved for medical use outside Russia, and both have fairly limited independently repeated research even on their own.

SIDE EFFECTS

Individually, each peptide has been reported to cause only mild issues — irritation in the nose (with nasal spray versions) and brief tiredness. However, no controlled studies have looked at what happens when the two are combined, whether their brain effects add up in unexpected ways, or how they interact with psychiatric medications.

EXPERIMENTAL RESEARCH DOSES

There's no established combined dosing standard, since no formal research has tested them together. Individual peptide studies have generally used small microgram-level daily doses, often given as a nasal spray.

WHAT IS THE RESEARCH COMMUNITY SAYING?

Nicknamed the 'Focus Stack' by some Reddit users, this combination has an active following in nootropic (cognitive-enhancement) and biohacking communities (r/Biohackers focus stack thread; r/StackAdvice detailed log). People commonly describe Semax as giving sharper focus and drive, especially taken in the morning, while Selank is described as calming and helpful for anxiety and sleep when taken in the evening — several posters describe timing them this way specifically to get 'the best of both' without feeling too wired or too flat (r/ParamountPeptide write-up). Reported downsides include irritability or a 'wall' effect where benefits seem to fade partway through a cycle, and a few people report the effects wearing off or becoming inconsistent after a couple of weeks (r/Peptides mixed-results thread). Community discussion often stresses cycling on and off (like 5 days on, 2 off) to avoid this fading effect. Some users combine the stack with other supplements like L-theanine or choline and report it's hard to separate which ingredient is doing what.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Commonly discussed doses range from about 200 to 500 micrograms of each peptide per day, with some more intensive protocols going up to 500-1,000 micrograms of each, once or occasionally twice daily (BodyHackGuide focus protocol; thepeptideguide.net protocol). Typical cycling patterns mentioned are 5 days on, 2 days off, run for around 2-3 months before a longer break. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

Tesamorelin/Ipamorelin Blend (Tesamorelin + Ipamorelin) · No. 97

RESEARCH PRICING

STRENGTH	SINGLE VIAL	10-VIAL KIT
Tesamorelin 12 mg + Ipamorelin 6 mg	$100	$500

Prices reflect the official Trinity Peptides product catalog. For Research Use Only — not for human consumption. Call (909) 322-6375 for current availability.

WHAT IS IT?

This blend combines tesamorelin, a stabilized version of a natural growth-hormone-releasing hormone, with ipamorelin, a peptide that triggers growth hormone release through a different hormone pathway (the ghrelin receptor). Vials commonly come in ratios like 10 mg/5 mg or 5 mg/5 mg, without any single standard ratio across sellers.

WHAT DOES IT DO?

Like the CJC-1295/ipamorelin blend, the goal is to stimulate growth hormone release from two different biological angles at once for a bigger effect than either alone. Tesamorelin has a stronger scientific pedigree than most research peptides — it's actually FDA-approved (brand name Egrifta) for reducing excess deep belly fat in people with HIV-related fat redistribution (Falutz et al., NEJM 2007). Still, the idea that adding ipamorelin improves on tesamorelin alone is based on general growth-hormone-peptide science, not on any study of this specific pairing.

WHAT DO STUDIES SHOW?

No published study or clinical trial has tested tesamorelin combined with ipamorelin. Tesamorelin's approval and research data all come from using it by itself. Ipamorelin has never completed a major successful clinical program of its own (Raun et al. 1998). No paper or patent evaluating the two together was found.

SIDE EFFECTS

Tesamorelin's official prescribing information lists effects like joint pain, difficulty processing sugar (glucose intolerance), fluid retention/swelling, and injection-site reactions. Adding a second growth-hormone-boosting peptide could plausibly make these stronger by pushing growth hormone and IGF-1 (a related hormone) even higher, though this hasn't been formally studied. People using approved tesamorelin normally get their IGF-1 levels checked by a doctor — there's no equivalent oversight when people combine these on their own.

EXPERIMENTAL RESEARCH DOSES

Tesamorelin's approved medical dosing is based on injecting it once daily. There's no officially studied dose for combining it with ipamorelin — any numbers for the pair come from unsupervised community use, not from clinical research.

WHAT IS THE RESEARCH COMMUNITY SAYING?

This stack has an active following among people focused on visceral (deep belly) fat loss and body recomposition, with many long-term self-tracked reports (r/BodyHackGuide feedback thread; r/PeptideDiscussion experience post). People frequently say tesamorelin does 'most of the work' for reducing stubborn belly fat while ipamorelin mainly smooths out sleep and recovery. Reported benefits include noticeably reduced waist measurement over weeks to months, better sleep with vivid dreams, and improved workout recovery. A commonly mentioned side effect is a brief warm 'flush' or tingling right after injecting, plus occasional joint aches; some compare it favorably to CJC-1295/ipamorelin, saying tesamorelin gives steadier, more visible fat-loss results, though it may cause more water retention if dosed too aggressively (r/PeptideGuide comparison thread). Community debate exists over whether ipamorelin is even necessary alongside tesamorelin, with some arguing tesamorelin alone (as studied in its approval trials) is sufficient and others insisting ipamorelin measurably improves results.

WHAT EXPERIMENTAL DOSES ARE BEING DISCUSSED ONLINE?

Commonly discussed protocols use around 1-2 mg of tesamorelin combined with 100-300 micrograms of ipamorelin, once or twice daily (often before bed, sometimes also in the morning fasted), typically run 5 days on and 2 days off for 8-12 week cycles (Jay Campbell dosing guide; Peptide Mind protocol). Some posters mention using just 1 mg tesamorelin with 100-150 micrograms ipamorelin as a gentler approach, while others report going up to 2 mg tesamorelin combined with 500-600 micrograms ipamorelin. These are community-reported experimental discussions and are NOT proof that these doses are safe or effective.

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