

RETATRUTIDE

("Reta")

An Evidence-Based Guide

Peptides 101 • How reta works • What research shows • Safety, Dosing, Reconstitution • Sources

IMPORTANT UPDATE AS OF AUGUST 3, 2026

Retatrutide is an investigational medicine. It is not FDA-approved, is not available for routine public use, and should not be purchased or used outside a legitimate clinical trial. This guide is educational only and does not provide dosing, sourcing, or treatment instructions.

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About Me

My recovery centered perspective behind all of this

MY STORY

I'm recovering from four years of binge eating. My intention in starting retatrutide was never to starve myself or slip back into harmful ED habits! **It was to support my recovery.** To relearn genuine hunger cues, regulate my emotions, and live with less food noise that used to affect every aspect of my life.

What I Advocate For

- **Recovery before restriction.** The goal is not to eat as little as possible, punish my body, or chase extreme results. All the transformations you see are the natural workings of Reta!
- **Relearning instead of overriding.** I want to rebuild trust in my hunger cues and respond to emotions with more awareness and care.
- **Healthy habits that can last.** I advocate for building nourishing, sustainable routines while on it.

DISCLAIMER

- *For informational purposes, everything discussed in this document is fictional and intended for educational discussion, and research only. This guide is **not medical advice**. I am simply sharing my research.*
- I highly recommend that you read through this guide thoroughly to understand more about Reta!! After doing so, and you still have questions, **feel free to DM me on Twitter!**
- **Some AI was used to aid in formatting and colors, but all research, content, and sources were manually done by me**

Always do YOUR OWN research before taking any peptide. Here are some great resources:

Articles:

<https://www.nejm.org/doi/full/10.1056/NEJMoa2301972>

<https://www.nature.com/articles/s44324-025-00054-5>

<https://pmc.ncbi.nlm.nih.gov/articles/PMC12190491/>

Great YouTube video to watch on Reta:

https://youtu.be/r1AfHN4hgjQ?is=B6BzdWYBf_ChshBr

How to Reconstitute & Inject Your Peptide

Watch this step-by-step tutorial here: <https://youtu.be/echyX7c9YjA?is=sjKpZZIGuMWf2bWN>

(Note: You do not need a larger syringe to reconstitute your peptide. A standard 100 unit insulin syringe works just fine.)

Terms for reta to search up on TikTok:

- R3ta, ratatouille, pep, peppers, rta, retta

1. Peptides 101

A simple foundation before discussing retatrutide

What is a peptide?

A peptide is a short chain of amino acids. Amino acids are the building blocks of proteins. Some peptides occur naturally in the body and act as signals; others are designed as medicines to copy, modify, or extend those signals.

2. Retatrutide Basics

What it is, what it is not, and why researchers are studying it

What is retatrutide?

Retatrutide (development code LY3437943) is a single investigational peptide designed to activate three hormone receptors: GIP, GLP-1, and glucagon [1,4]. Because it acts at three receptors, it is usually described as a triple hormone receptor agonist or triple agonist.

Retatrutide is a triple agonist peptide that activates GLP-1, GIP, and glucagon receptors. Because it activates all three pathways, it is called a “**triple agonist**.” These pathways regulate **appetite, insulin sensitivity, metabolism, and energy expenditure**, which is why retatrutide has been studied for obesity and metabolic diseases.

How Reta works:

Reta works for fat loss by increasing your caloric deficit: it helps reduce hunger (you’ll eat less), increases metabolic burn (you burn more calories at rest), and pushes your body to target fat specifically for fuel.

Reta Benefits:

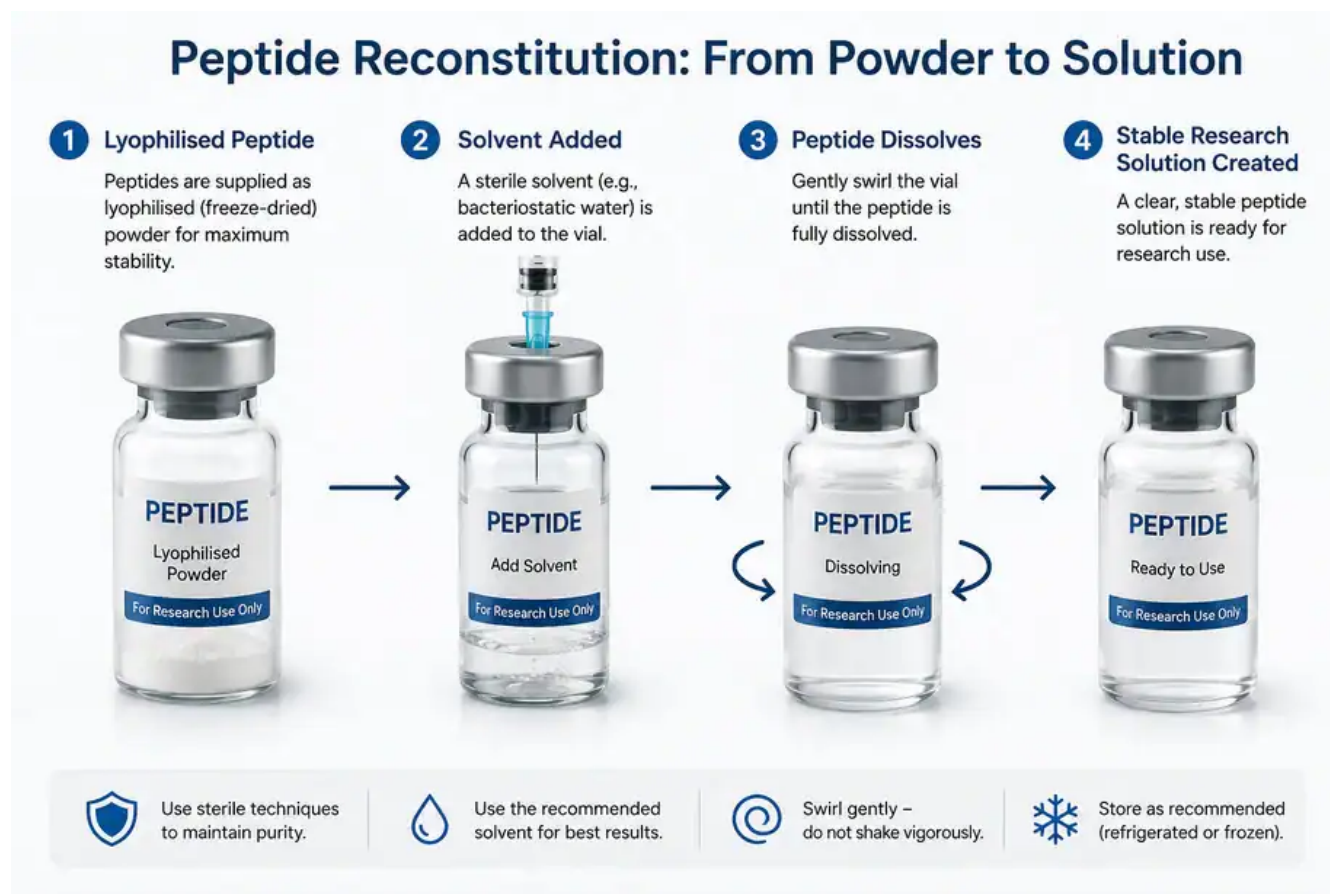
- Weight loss by reducing appetite and increasing fullness
- Reduced food cravings and less “food noise”
- Better blood sugar control
- Improved insulin sensitivity
- Reduced waist circumference
- Reduced body fat
- Increased energy expenditure (burning more calories), which may contribute to greater weight loss than GLP-1-only medications
- Possible improvements in cholesterol and triglycerides
- Potential improvements in fatty liver disease

Some people also report:

- Easier portion control
- Less snacking between meals
- More stable energy after eating

How to Reconstitute the Reta:

Use 1ml of BAC water for a 10mg vial of Reta. Use 2ml of BAC water for a 10mg vial of Reta.



How to Reconstitute & Inject Your Peptide

Watch this step-by-step tutorial here:

<https://youtu.be/echyX7c9YjA?is=sjKpZZIGuMWf2bWN>

Bacteriostatic Water / Bac Water

Reta comes as a freeze-dried powder, so you'll need bac water to reconstitute it before use. The bac water is what you add to the Reta vial to turn the freeze-dried powder into a liquid solution.

Dosing (VERY IMPORTANT):

- **How it works:** If you have a 10 MG vial of Reta reconstituted with 1 mL of bac water, that makes every 10 units on a 100 unit syringe = 1 mg. (use a peptide calculator)
- **Dose:** Start at 0.5mg- that is 5 units on the syringe. Titrate up by 0.5mg every 2-4 weeks as needed/tolerated
- Find your ideal dose where you feel benefits with no side effects
- **Timing:** take 1x a week at night
- **Method:** Subcutaneous injection("SubQ") (Stomach or upper glute is a common spot.)
- How to inject peptides: <https://youtu.be/echyX7c9YjA?is=pXMU7gPVGK14xrsG>

Storage:

- **Reconstituted Reta:** Store in the refrigerator at 36–46°F (2–8°C).
- **Bacteriostatic Water (BAC Water):** Store at room temperature in a cupboard or other cool, dry place. Do not refrigerate. Once opened, it is generally recommended to use it within 28 days. Unopened BAC water typically has a shelf life of several years until its printed expiration date.
- **Unreconstituted Reta (Powder):** When stored in a cool, dry, dark place, the lyophilized (powder) peptide can remain stable for 3–4 years. For long-term storage (more than 4 months), keeping unreconstituted peptides in the freezer is recommended to help maximize stability.

Side Effects:

Common / Not Concerning:

- Nausea (common early on if you dose too much - titrate slowly)
- Injection site redness or mild pain
- Fatigue during first few weeks
 - (the peptide "MOTS-c" is commonly started around the same time as Reta to address fatigue or low energy.)

Reta dose: (in more detail)

The most common approach for dosage (this is also what I did) is to start at 0.5 mg weekly for 2–3 weeks, then increase slowly by 0.5 mg every 3–4 weeks. Some people notice effects quickly but not for everyone; it builds up in your system over time so week 3-4 will feel stronger than week 1! Starting at a high dose or increasing too quickly increases the chance of side effects, so 0.5 mg is a great place to start.

Example progression:

- * 0.5 mg once weekly for 2–3 weeks
- * 1.0 mg once weekly for 3 weeks
- * 1.5 mg once weekly for 3 weeks

Continue increasing by **0.5 mg** only if needed and if you're tolerating it well. If you're continuing to see progress and are happy with your results at your current dose, there's no need to increase. The goal is to use the lowest effective dose that continues to provide the desired effects/results.

Important info for Dosing: Use a [PEPTIDE CALCULATOR](#) to convert your dose (mg) into the correct # of syringe units based on your reconstitution before injecting. Never assume mg = syringe units.

Syringes are measured in units, and the # of units you draw up depends on how your vial was reconstituted (mixed). If you have a 10 mg vial reconstituted with 1 mL of bac water, that makes every 10 units on a U-100 syringe = 1 mg dose. So if you want to pin 0.5 mg as your dose, that's 5 UNITS on the syringe.

Use this to make things easier: <https://primepeptides.co/peptide-calculator/>

(Disclaimer: This is not medical advice. I'm simply sharing information I've learned and my own experience! for educational and research discussion purposes only. Everyone should do their own research before making decisions about their health)

“It's week 1/week 2 and I don't feel anything.. Should I up my dose??”

- It is common to not feel the effects until after the 2nd/3rd week! Because Reta gradually accumulates in your system, the effects become stronger over time. Ex: by around week 4, people find they feel it more effective than they did week 1, even if they're taking the same weekly dose.
- Note: You will likely experience side effects the higher that you start/ the quicker you up your dose. Starting at a higher dose/upping your dose too soon can increase your chances of experiencing side effects. If you're risk-averse or want to minimize side effects, starting at 0.5 mg and slowly titrating up is a more cautious approach.

“When should I increase my dose?”

- Only consider increasing your dose if you're tolerating your current dose well and aren't experiencing significant side effects.
- Reta builds up gradually in the body, so it can take about 4 weeks at a given dose before you experience its full effects.

Things to Assess Before Increasing Your Dose:

- 1. Food noise and cravings: Are food thoughts becoming more frequent, and are cravings becoming harder to manage?
- 2. Appetite: Is your appetite consistently increasing throughout the week (not just feeling hungrier on a single day)?
- 3. Progress: Has your weight or other progress been stalled for at least 2–3 weeks, despite staying consistent with your nutrition and physical activity?

How the three pathways are understood

GLP-1	Helps regulate appetite, food intake, glucose-dependent insulin release, and digestion	Effects vary by person, and nausea or other gastrointestinal effects can occur.
GIP	Participates in glucose-dependent insulin signaling and energy regulation	Its role in weight regulation is complex and is still being studied.
Glucagon	Influences liver glucose output and energy metabolism	The contribution of glucagon-receptor activity to retatrutide's human effects is still being clarified.

How it is being studied

In clinical trials, retatrutide has been administered as a once-weekly subcutaneous injection. Researchers are evaluating it for obesity, type 2 diabetes, and several obesity-related complications and outcomes. Trial administration is controlled by study protocols and medical teams; it is not a template for self-use.

3. Current Regulatory and Research Status

What YOU need to know as of August 2026

Not approved

Retatrutide has not been approved by the U.S. Food and Drug Administration or any other regulatory agency [3,4]. It remains an investigational medication available legally only through authorized clinical trials.

Where the research stands

- A peer-reviewed phase 2 obesity trial was published in 2023.
- A peer-reviewed phase 2 type 2 diabetes trial was also published in 2023.
- Multiple phase 3 studies are underway or have reported topline results.
- Some 2026 phase 3 findings have been announced by the manufacturer, but not every dataset has yet completed full peer-reviewed publication and regulatory review.
- Approval, final labeling, contraindications, monitoring requirements, pricing, and public availability remain undetermined.

4. What the Research Shows So Far

Published phase 2 obesity trial

The 2023 randomized, double-blind, placebo-controlled phase 2 trial enrolled 338 adults with obesity or overweight plus a weight-related condition, without type 2 diabetes. At 48 weeks, average weight change ranged from about –8.7% to –24.2% across the studied retatrutide groups, compared with about –2.1% with placebo. The greatest average reduction occurred in the highest studied maintenance-dose group. These were group averages in a controlled trial—not guaranteed individual outcomes [1].

Published phase 2 type 2 diabetes trial

In a separate 2023 phase 2 trial involving 281 participants with type 2 diabetes, retatrutide produced dose-dependent reductions in HbA1c and body weight over 24 to 36 weeks. The study helped inform dose selection for phase 3 research. It was not designed to establish routine public use [2].

2026 phase 3 announcements

In 2026, Lilly announced positive topline results from several phase 3 studies, including obesity and type 2 diabetes programs. For example, the company reported an average 28.3% weight reduction over 80 weeks in the highest-dose group of TRIUMPH-1. Treat these figures as manufacturer-reported topline findings until full methods and results are independently scrutinized in peer-reviewed publications and regulatory review [8,9].

5. Side effects

Common adverse events reported in published trials

- Nausea
- Diarrhea
- Vomiting
- Constipation
- Reduced appetite or other gastrointestinal symptoms

What is not fully known yet

- Long-term safety over many years
- The frequency of rare adverse events in very large populations
- Final contraindications, warnings, and monitoring requirements
- Safety in pregnancy, breastfeeding, adolescents, older or medically complex populations unless specifically studied
- How real-world use may differ from carefully monitored trials
- The safety of products sold online claiming to contain retatrutide

Personal Experience

I started at a high dose (1.5mg) and during my first week I experienced vomiting, nausea, extreme fatigue, digestive discomfort, and sulfur burps. This is why it's important to start low!

6. Retatrutide Compared With Familiar Medicines

The differences with Ozempic and other meds

Medicine	Main receptor targets	Regulatory status (U.S.)	Key distinction
Semaglutide	GLP-1	Approved products exist for type 2 diabetes and chronic weight management	Single-receptor agonist
Tirzepatide	GIP + GLP-1	Approved products exist for type 2 diabetes and chronic weight management	Dual-receptor agonist
Retatrutide	GIP + GLP-1 + glucagon	Investigational; not FDA-approved	Triple-receptor agonist under clinical development

7. How to Read and Analyze a COA

A guide for reading lab reports

What is a COA?

A COA summarizes laboratory results for a material, batch, or submitted sample and compares those results with stated specifications. In a regulated manufacturing system, it sits inside a larger quality framework that includes validated methods, batch records, qualified suppliers, stability data, deviation investigations, release decisions, and traceability. A stand-alone PDF cannot substitute for that entire system.

Start with the sample type

Report type	What may have been tested	Main limitation
API or raw-material COA	Bulk active ingredient before it becomes a finished product	Does not establish the quality, dose, sterility, container integrity, or stability of a finished vial.
Finished-product COA	The formulated and packaged drug product	Still needs authentic batch traceability, suitable specifications, validated methods, and a lawful quality system.
Third-party sample report	Whatever sample a client submitted to the laboratory	Unless chain of custody is documented, it may not prove that the sample came from the advertised vendor, batch, or sealed vial.

My 7 step CoA check

- 1. Match the identifiers:** The product name, form, lot or batch number, sample ID, and report number should match the label and any accompanying records exactly. A COA for “retatrutide” without a batch link is not batch-specific evidence.
- 2. Confirm what the laboratory received:** Look for the sample description, quantity, condition, date received, and who submitted it. “Sample supplied by client” means the lab generally did not verify its commercial origin.
- 3. Verify the laboratory independently:** Use the laboratory’s official contact details or report-verification system not only a vendor-provided link. Ask whether the report number is authentic and unchanged.
- 4. Check accreditation and scope:** ISO/IEC 17025 accreditation can support laboratory competence, but the accreditation scope must actually cover the relevant test method and analyte. A logo alone is not enough.
- 5. Review dates:** Check manufacture or sampling date, test date, release date, and expiry or retest date. Results from a different batch or a sample tested long before the listed batch existed are major red flags.
- 6. Read the method:** A result should name or reference the analytical method. Stronger reports identify validated or compendial methods, reference standards, units, and method limitations.
- 7. Check authorization and integrity:** The report should be dated, reviewed, and signed or electronically authorized by identifiable personnel. Watch for unexplained revisions, cropped pages, inconsistent fonts, altered metadata, or missing attachments.

COA red flags

- No lot or batch number or it does not match the vial
- The same COA is reused for multiple batches
- No method, units, specification, or reference standard
- Only screenshots, cropped pages, or low-resolution images are provided

8. My SOURCES !!

1. <https://voidresearch.shop> (Worldwide)

Why I use Void Research for my peptides:

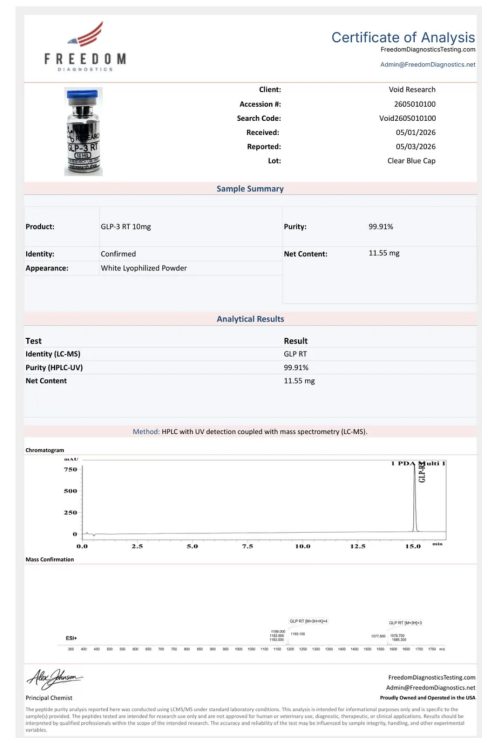
What I like about Void Research:

- Third-party tested with COAs
- 99% purity
- Great prices
- Fast U.S. shipping (typically 1–3 business days)
- International shipping
- Responsive customer service
- Trusted and transparent company

Get **RETA ("GLP-3RT") 10% OFF** here ↓

<https://voidresearch.shop/invite/YAEKO/>

- This is "GLP3-RT" on the website
- If you follow the recommended dosing in this guide, the 10 MG vial will last 7-12 weeks)
- INTERNATIONAL SHIPPING



How is purity verified?

- Every batch is tested by an independent third-party laboratory. Each COA includes the batch number, test date, and testing lab, and is uploaded to the corresponding product page before any vials from that batch are shipped.

2. <https://forma-ph.vercel.app/> (PH based)

(one of my main sources after void since it's Philippine based, sourced from canada. Can ship world wide)

Why I get from Forma

- Easy and fast transactions
- Free 20 minute consultation call
- Has some coaching along with it by a **certified coach and nutritionist**
- Only 1 size vial (20mg) with FREE bac water
- Has a FREE and comprehensive macro calculator:
<https://calorie-calculator-black.vercel.app/?ref=forma>

3. <https://peptide.com> (US Based only)

Why I recommend Peptide for US based individuals

- Dispatched within 24hrs from our US facility. No customs, no overseas freight.
- Verified CoA's

4. <https://ivorylabs.shop> (haven't ordered from them yet, but seem legitimate)

- Every lot is verified by an accredited third-party lab before it leaves their facility.
- A signed Certificate of Analysis travels with each order
- Orders placed before 1PM PST are packed and dispatched the same business day.



Research Sources

1. Jastreboff AM, et al. Triple–Hormone-Receptor Agonist Retatrutide for Obesity — A Phase 2 Trial. *New England Journal of Medicine*. 2023;389:514–526. DOI: 10.1056/NEJMoa2301972. [Source](#)
2. Rosenstock J, et al. Retatrutide, a GIP, GLP-1 and glucagon receptor agonist, for people with type 2 diabetes: a phase 2 trial. *The Lancet*. 2023;402:529–544. DOI: 10.1016/S0140-6736(23)01053-X. [Source](#)
3. U.S. Food and Drug Administration. FDA's Concerns with Unapproved GLP-1 Drugs Used for Weight Loss. Updated June 15, 2026. [Source](#)
4. Eli Lilly and Company. What to Know About Retatrutide. Medically reviewed; updated July 2026. Sponsor source used for current development status and clearly labeled company-reported results. [Source](#)
5. ClinicalTrials.gov. Phase 3 study in participants with obesity and established cardiovascular disease (NCT05882045; TRIUMPH-3). [Source](#)
6. ClinicalTrials.gov. Retatrutide Phase 2 Obesity Study (NCT04881760). [Source](#)
7. ClinicalTrials.gov. TRIUMPH-Outcomes: Cardiovascular and Kidney Outcomes in Adults Living With Obesity (NCT06383390). [Source](#)
8. Eli Lilly and Company. TRIUMPH-1 topline results announcement. May 21, 2026. Sponsor announcement; not a substitute for peer-reviewed publication or regulatory review. [Source](#)
9. Eli Lilly and Company. TRIUMPH-2 and TRIUMPH-3 topline results announcement. July 23, 2026. Sponsor announcement; not a substitute for peer-reviewed publication or regulatory review. [Source](#)

Educational Disclaimer

My guide is for general education. It does not diagnose, prevent, or treat disease; establish a clinician–patient relationship; recommend a medicine; or provide instructions for dosing, reconstitution, injection, purchasing, or sourcing. Medical and regulatory information changes. Review the sources and update the date before every publication or reuse. I genuinely love helping you guys out so if you have questions feel free to message me!!

Last fact-checked: August 3, 2026.