

What retatrutide is

A synthetic peptide from Eli Lilly that activates three receptors at once: GLP-1 and GIP, the pair behind tirzepatide, plus glucagon. A fatty-acid side chain gives it a half-life of about six days, so it is injected once a week.

CLASS Triple GIP / GLP-1 / glucagon agonist

ROUTE Subcutaneous, once weekly

STATUS Investigational. Phase 3 under way; Lilly plans to file with the FDA in early 2027.

NOT APPROVED, NOT COMPOUNDABLE

No approved product exists, and in April 2025 the FDA told every state pharmacy board that retatrutide cannot be compounded under 503A or 503B.

Anything sold as retatrutide today is unapproved drug from an unregulated source.

This pamphlet is for adults following the drug's path to approval, or who have been offered something called retatrutide. It is a summary of the published record, not medical advice.

If you are offered retatrutide, ask

- ☐ Is this FDA-approved? (It is not, as of this edition.)
- ☐ Is this a registered trial? What is the NCT number?
- ☐ Is this Lilly's expanded-access program, and which physician applied?
- ☐ If neither, where does the vial come from, and what does its label say about human use?
- ☐ Who will check my heart rate and rhythm, and how often?
- ☐ Who is responsible if I have a serious side effect?

SOURCES

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4. Eli Lilly and Company. Lilly's triple agonist, retatrutide, delivered weight loss of up to an average of 71.2 lbs along with substantial relief from osteoarthritis pain in first successful Phase 3 trial (TRIUMPH-4). Press release, December 2025.
5. Eli Lilly and Company. Lilly's triple agonist, retatrutide, delivered powerful weight loss in pivotal Phase 3 obesity trial (TRIUMPH-1). Press release, May 21, 2026.
6. ClinicalTrials.gov. A study of retatrutide (LY3437943) in participants who have obesity or overweight (TRIUMPH-1). NCT05929066.
7. ClinicalTrials.gov. Pre-approval expanded access of retatrutide (LY3437943). NCT07629401.
8. U.S. Food and Drug Administration. Letter to executive officers, state boards of pharmacy: retatrutide in compounded drug products. April 2025.
9. U.S. Food and Drug Administration. Warning letters to sellers of unapproved retatrutide products (GLP-1 Solution, GenLabMeds, ASN-Labs). September 9, 2025.
10. U.S. Food and Drug Administration. Human drug compounding: sections 503A and 503B of the Federal Food, Drug, and Cosmetic Act.
11. Coskun T, et al. LY3437943, a novel triple glucagon, GIP, and GLP-1 receptor agonist for glycemic control and weight loss: from discovery to clinical proof of concept. *Cell Metab*. 2022;34(9):1234-1247.

This guide is an educational summary of published sources and is not medical advice. Retatrutide is an investigational drug with no approved product, and it cannot lawfully be compounded. Trial results describe Lilly's manufactured drug given under trial monitoring; they say nothing about any product sold outside a trial. Status statements are current as of the edition date.

Newport Peptide Society

[NEWPORTPEPTIDESOCIETY.COM/GUIDES/RETATRUTIDE](https://newportpeptidesociety.com/guides/retatrutide)

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Retatrutide

A guide to the triple GIP / GLP-1 / glucagon agonist

Retatrutide adds a third hormone, glucagon, to the GLP-1 and GIP pair behind tirzepatide. In Phase 3 trials it has produced the largest weight loss ever recorded for a drug, approaching what bariatric surgery achieves. It is not yet approved, and no pharmacy can lawfully compound it. This guide covers what the trials show, what the drug does to the body, and why the vials being sold as retatrutide today are not what they claim.

Three hormones, and what the trials showed

	GLP-1 + GIP	GLUCAGON
Appetite	Lower; meals feel larger	Modest effect
Pancreas	More insulin when sugar is high	Would raise sugar; offset
Liver, energy	Indirect, via weight loss	Burns liver fat; raises energy use
Heart rate	Small rise	Larger rise

−28.3% ⁵

Body weight at 80 weeks on 12 mg vs −2.2% placebo (TRIUMPH-1, topline)

45% ⁵

Of 12 mg participants lost 30% or more of body weight (TRIUMPH-1)

> 80% ³

Relative reduction in liver fat at higher doses (Phase 2 liver substudy)

TOPLINE, TRIAL-ONLY NUMBERS

Phase 3 figures are from Lilly press releases, not yet peer-reviewed, and describe the manufactured drug under trial monitoring. None of it applies to a vial bought outside a trial.

Trial dosing, and why nothing is compounded

TRIAL ESCALATION FOR A 30 MG VIAL + 1.5 ML WATER (20 MG/ML). NOT AN INSTRUCTION.			
WEEKS	DOSE	UNITS	PER 4 WK
1–4	2 mg	10	8 mg
5–8	4 mg	20	16 mg
9–12	8 mg	40	32 mg
13+	12 mg	60	48 mg
Mid arm	9 mg	45	36 mg

Results at 80 weeks: 4 mg −19.0%, 9 mg −25.9%, 12 mg −28.3% (11% stopped for side effects). No label exists; vials sold today have no verified concentration.

- APR 2025 FDA: not eligible for compounding under 503A or 503B
- SEP 2025 FDA warning letters to "research use only" sellers
- Q1 2027 Lilly's target to file for approval

WHAT IS IN THE VIAL

Pharmacies may compound only from approved or listed ingredients, and retatrutide is neither. Vials sold today come from chemical suppliers with no identity, potency, or sterility testing anyone answers for. Without a trustworthy concentration there is no dose to calculate.

- Lawful access today: a registered clinical trial, or Lilly's expanded-access program through a physician.
- A pharmacy offering it is acting outside the law; doubt the rest of what it says.

Safety signals, and what to ask

SELECTED EVENTS AT 68 WEEKS (TRIUMPH-4, TOPLINE)		
EVENT	12 MG	PLACEBO
Nausea	43%	—
Skin tingling or sensitivity	21%	—
Stopped for side effects	18%	4%

HEART RATE

Resting heart rate rose about 5 to 10 beats per minute, more than with tirzepatide, peaking near six months. A cardiovascular outcomes trial is under way to learn whether that matters.

- Expect the class warnings (thyroid C-cell tumors, pancreatitis, gallbladder, aspiration under anesthesia) on any future label.
- No data beyond two years, and none in pregnancy or adolescents.
- Unregulated vials add risks the drug itself does not have: unknown identity, potency, and sterility, and no monitoring.

THE OPTION THAT EXISTS TODAY

Tirzepatide is approved, comes in a manufacturer's pen, and rests on the same grade of evidence. It is what a prescriber can actually offer while the Phase 3 program finishes.