Retatrutide

Triple GLP-1/GIP/Glucagon Receptor Agonist

What It Is & What It Does

Retatrutide goes a step further than tirzepatide, hitting three hormone pathways at once (GLP-1, GIP, and glucagon). The third pathway, glucagon, directly tells the liver to burn fat, which is part of why early trial results show the biggest weight changes of any drug in this family tested so far. It's still experimental — not available outside of clinical trials.

What The Research Shows

- In its Phase 2 trial, the 12mg dose group lost 24.2% of body weight at 48 weeks — among the largest results ever recorded for this drug class.
- Notably, its Phase 2 trial deliberately enrolled close to 50% men — a much more balanced split than tirzepatide's (32.5% male) or semaglutide's (25.9% male) major trials, which the lead trial researcher suggested may have actually dampened the overall average result compared to trials skewed more female.
- No increase in serious cardiovascular events was seen; overall trial dropout for side effects was low.

Men's & Women's Health Research

Men / General	Women
• Men still lost substantial weight (up to 21.9-22.8% at top doses) — less than women on average, but still far beyond what any prior obesity drug had achieved for either sex. • Men with a higher starting BMI (35+) lost meaningfully more weight than men with a lower starting BMI — a dose-response-like pattern specific to the male subgroup data.	• In sex-subgroup analysis of the Phase 2 trial, women averaged 25.3-28.5% body weight loss at the top doses, meaningfully more than men — a statistically significant difference (about 4.2 percentage points more, p=.019). • 93.2% of women on the 12mg dose achieved at least 10% body weight loss, versus 89.7% of men — both very high response rates, but women's was higher. • Women reported somewhat higher nausea rates than men (31% vs. 24%), though this didn't translate into a higher dropout rate.

Reported Side Effects

- Nausea (up to 42.4%), diarrhea, constipation, vomiting — most common early and after dose increases
- Unusual skin sensations reported by some participants
- Mild increases in resting heart rate observed in trials

Regulatory Status

Not FDA-approved. Investigational only, available through clinical trials.

Tumor Growth Research Note — Retatrutide

Category: No Documented Mechanism Found

No documented tumor-growth mechanism or cancer-risk signal was found for Retatrutide in the research conducted for this catalog. This compound's documented mechanisms don't fall into the primary categories of concern (angiogenesis, direct mitogenic/IGF-1 signaling, or direct melanocyte stimulation) covered in the full research review. This is a statement of what the current research does and doesn't show, not a guarantee of safety in every context — anyone with an active or recent cancer history should still consult a physician before using any research compound.

This note is a compound-specific excerpt. For the complete framework, full evidence review, and all compound categories, see the standalone document: Can Peptides Cause Tumor Growth? — A Deep-Dive Research Summary. For laboratory and research use only. Not for human or veterinary use. Nothing here constitutes medical advice or a screening recommendation.

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2026 Phase 3 TRIUMPH results

Phase 3 Results Since This Document Was Written

The research above is drawn from Retatrutide's Phase 2 trial. Multiple Phase 3 readouts from Eli Lilly's TRIUMPH program have since reported:

• TRIUMPH-4 (obesity/overweight with knee osteoarthritis, reported December 2025): 12mg dose produced 28.7% average body weight loss (about 71.2 lbs) at 68 weeks, alongside reduced knee pain.
• TRIUMPH-1 (pivotal obesity trial, reported May 2026, n=2,339): 25.0% average weight loss at 80 weeks on 12mg, versus 3.9% on placebo; participants with severe obesity (BMI 35+) who escalated to max tolerated dose reached up to 30.3% average weight loss at 104 weeks.
• TRIUMPH-2 and TRIUMPH-3 (type 2 diabetes, and severe obesity with existing cardiovascular disease, reported July 2026): up to 20.8% and 22.6% average weight loss respectively at 12mg, 80 weeks.
• Lilly has stated it plans to submit a Biologics License Application to the FDA in Q1 2027. Retatrutide remains investigational and not FDA-approved as of this update.