

GUIDE TO RETATRUTIDE

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FOR INFORMATIONAL PURPOSES ONLY;
NOT INTENDED AS MEDICAL ADVICE.

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DISCLAIMER:

The following section is intended for laboratory reference use only. It is not intended to guide or suggest clinical application or human use. All content pertains to reconstitution in research settings using lyophilized compounds and sterile techniques.

INSTRUCTIONS FOR RECONSTITUTING RETATRUTIDE

1. Preparation:

- Assemble the following supplies:
 - syringe
 - alcohol wipes
 - bacteriostatic water
 - vial of lyophilized powder
- Ensure that the vial of Retatrutide is at room temperature before reconstitution.
- Calculate the correct amount of water you will use to reconstitute (example on the next page)
- **Before injecting, wipe the rubber stopper of both vials with an alcohol pad** to ensure proper hygiene and maintain sterility. If there is a cap blocking the rubber stopper, be sure to remove it gently and discard it.

2. Reconstitution Process:

- Use a syringe to draw the necessary amount of bacteriostatic water needed for reconstitution.
- Insert the syringe with bacteriostatic water into the peptide vial and slowly inject the water into the vial of Retatrutide.
- Gently swirl the vial (do not shake) to mix the solution until the tirzepatide is fully dissolved.

3. Dosing:

- Follow the commonly studied dosage based on your schedule (one example is shown on the next page- it is not meant to influence your research protocol).
- Use an insulin syringe to draw the correct number of units based on the research dosing protocol.

4. Storage:

- Store the reconstituted tirzepatide in the refrigerator (between 2°C and 8°C).



EXAMPLES OF RECONSTITUTION CALCULATIONS

The table below provides a detailed example on how to reconstitute a 30mg vial of Retatrutide and administer the correct doses. It serves as an educational reference of how to calculate the amount of bacteriostatic water used to reconstitute the lyophilized powder based on one widely used research protocol. Please note that this is a general guide, and specific instructions may vary depending on the research protocol being followed.

Use the table below to determine what amount of bacteriostatic water to add to a 30mg Vial of Retatrutide:

Dosage (mg)	Bacteriostatic Water (ml)	Units to Draw
(Weeks 1-2) 1.0 mg	1.2 ml	10 units
(Weeks 3-4) 2.0 mg	Same vial	20 units
(Week 5) 4.0 mg	Same vial- vial ends at week 3	40 units
(Week 6) 4.0 mg (Week 7) 8.0 mg	1.2 ml	4 mg- 40 units 8mg - 80 units

Notes:

- Reconstituting the first 12 mg vial with 1.2 ml yields a 0.1 mg per unit solution. In the example above, that vial will be empty after Week 5.
- For the second vial, still 12 mg, you'll reconstitute with 1.2 ml of water, giving you 0.1 mg/unit again — you would have one 4mg dose and one 8mg dose.

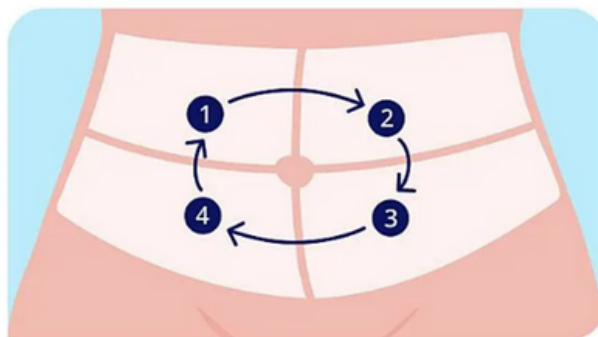
Helpful Tips for Reconstitution and Dosing

- **Hold the vial upside down:** When drawing the bacteriostatic water into the syringe, it can be helpful to hold the vial upside down. This will make it easier to draw the water, as gravity will assist in filling the syringe more smoothly.
- **Use a separate syringe for mixing:** When mixing the Retatrutide with bacteriostatic water, use a separate syringe. After mixing, **discard the syringe used for mixing.** This is because the blunt tip of the syringe used for mixing may get damaged and could lead to difficulty drawing the medication accurately later.
- **Do not shake:** When mixing the reconstitution solution, always **swirl gently** instead of shaking. Shaking could damage the medication and create bubbles in the vial.
- **Inject slowly:** Add your bacteriostatic water to the peptide vial slowly. Typically, the pressurized cap will pull the liquid in without you needing to press the syringe.
- **Double-check dosage:** Always ensure that the correct number of units is drawn into the syringe. Check the dosage on the label and cross-check with the units in the syringe before administering.
- **Keep the vial clean:** Be mindful of not contaminating the rubber stopper when drawing up the water or medication. Always wipe the stopper with an alcohol pad before use.

SELECTING AN INJECTION SITE



Choose an area:
abdomen, upper legs or upper arms.



Select an injection site to start injecting.
Switch injection sites weekly

Visual Aid of How to Administer an Injection Subcutaneously

1 Clean top of vial with alcohol wipe	2 Insert syringe needle at 45 degree angle	3 Hold vial tilted upwards, slowly pull back until you have reached your dosage
4 Turn right side up, withdraw syringe and tap to bring air bubble to top of chamber	5 Push plunger up slightly to expel air bubble from syringe until tiny droplet appears	6 Locate and clean injection site, pinch between thumb and index finger
7 Inject at 45 degree angle into pinched area and inject slowly	8 Replace cap on syringe and dispose of needle in a sharps container	9 Place your vial(s) back in the fridge



DOSING

Retatrutide is typically initiated at a 1.0 mg weekly dose, with gradual increases intended to improve tolerability. A commonly referenced clinical titration pattern moves from 1.0 mg → 2.0 mg → 4.0 mg → 8.0 mg → 12.0 mg, usually increasing every 2 weeks. However, this is not a fixed requirement — **many individuals do not need to reach the highest dose, and slower escalation is often preferred for long-term comfort and sustainability.**

In clinical trials, 12 mg weekly produced the most pronounced weight loss and metabolic effects. But it also came with a higher incidence of side effects like nausea and fatigue. Real-world feedback and trial subgroup data suggest that many people achieve excellent results at 4 mg or 8 mg, and some even choose to remain at 2 mg if they're responding well and tolerating it comfortably.

It's important to understand that dose increases are optional, not mandatory. **The best long-term results often come from using the lowest effective dose, and adjusting upward only if appetite control or weight loss stalls.**

In some cases, researchers or individuals may choose to remain at a given dose for 3–4 weeks (or longer) before moving up. This slower approach helps reduce gastrointestinal discomfort, improves adherence, and allows for a more stable response over time.

Skipping steps or escalating too quickly is not recommended, as this tends to increase the likelihood of side effects and may lead to early discontinuation.

FREQUENCY OF INJECTIONS

Retatrutide is typically administered once every 7 days, but some individuals report a noticeable decline in appetite suppression or energy by day 6 or even day 5. In these cases, shortening the injection interval to every 5–6 days can help maintain more consistent effects.

Although brand-name guidance suggests weekly dosing, that recommendation is largely for convenience. Retatrutide has a half-life of about 120 hours (5 days), with drug levels peaking within 24 hours post-injection and gradually declining afterward. Because of this, a 5–6 day injection cycle may more closely align with its pharmacokinetics.

As the drug's effect tapers toward the end of a 7-day cycle, individuals may notice increased hunger, larger meals, or mood shifts. Instead of increasing the dose, many find that adjusting the timing of injections can offer smoother appetite control and fewer fluctuations.

EFFECTS AND SIDE EFFECTS OF RETATRUTIDE AND GLP-1 MEDICATIONS

Retatrutide is a triple agonist targeting the GLP-1, GIP, and glucagon receptors. While it shares many side effects with GLP-1-only medications, its broader metabolic effects may amplify both efficacy and tolerability challenges during dose escalation.

The most common side effects are gastrointestinal and include nausea, vomiting, diarrhea, constipation, and reduced appetite. These are generally mild to moderate and dose-dependent, typically improving with time and slower titration.

The risk of hypoglycemia is low when retatrutide is used alone, but may increase if taken alongside insulin or sulfonylureas. Less common but serious side effects include pancreatitis, gallbladder disease, or kidney issues, which require prompt evaluation.

Additionally, like other GLP-1-based medications, retatrutide may delay gastric emptying, which can interfere with the absorption of oral medications—including birth control pills. A non-oral contraceptive method is recommended while using this class of therapy.



EATING HABITS WITH RETATRUTIDE

Retatrutide significantly impacts satiety and digestion, often leading to early fullness and a reduced ability to tolerate larger meals. **Many side effects like nausea and cramping are linked to how and how much a person eats. These strategies may help:**

- Eat smaller meals: Reducing portions by 30–50% lowers the risk of discomfort.
- Eat slowly: Take time to chew thoroughly and pause between bites.
- Adjust to delayed digestion: Avoid overeating or eating too close to bedtime.
- Although some may attempt intermittent fasting, prolonged restriction during treatment may lead to fatigue or low energy, especially in early stages. Most individuals feel best when eating small, nutrient-dense meals 2–3 times per day, focusing on protein, fiber, and hydration to maintain energy and digestive comfort.

FOOD/DIET TIPS FOR TIRZEPATIDE RESEARCH

Retatrutide tends to work best when paired with simple, sustainable dietary changes that support metabolic stability and digestive comfort. Swapping fast-digesting carbs for whole foods rich in protein, fiber, and healthy fats can enhance appetite control and reduce side effects.

Changes don't have to be dramatic. Gradual shifts—like trading diet soda for seltzer, white bread for sprouted grain, or sugary snacks for a savory egg-based meal—are effective and easier to stick with.

Because retatrutide slows digestion, certain comfort foods may trigger bloating, nausea, reflux, or altered taste. These effects can often be minimized through mindful eating.

Helpful food strategies include:

- Avoid fried, greasy, processed, or sugary foods — they're harder to digest and more likely to cause discomfort.
- Eat smaller, slower meals that are nutrient-dense and high in fiber.
- Drink cold or carbonated beverages, such as sparkling water or unsweetened tea, to aid digestion.
- Alcohol may reduce retatrutide's effectiveness by affecting blood sugar regulation and appetite signals, and it can worsen fatigue or reflux. **Reducing or eliminating alcohol often improves sleep, energy, and treatment outcomes.**