

## ABOUT GLP-1 PEPTIDES

GLP-1s work by mimicking the natural hormone GLP-1 in the body, which helps regulate blood sugar and appetite. These peptides slow gastric emptying, enhance satiety, and improve insulin sensitivity, which is key for managing diabetes and preventing metabolic syndrome. They also help reduce harmful cravings, from sugar to nicotine, further supporting healthier lifestyle habits.

GLP-1 peptides are well-known for their ability to aid in weight loss and manage metabolic conditions such as diabetes, but their benefits go beyond these primary uses. GLP-1 peptides regulate insulin, reduce inflammation, improve hormone regulation, enhance mental health, stabilize energy levels, and support cardiovascular health. Even if a patient does not want to lose weight, GLP-1s offer significant benefits for longevity when taken in low doses, making them a valuable addition to many peptide protocols.

## GLP-1 PEPTIDE BENEFITS:

### Weight Loss and Metabolic Health

*GLP-1 receptor agonists provide significant benefits in weight loss and metabolic health:*

- Promotes fat burning by enhancing the body's ability to use stored fat as energy.
- Reduces appetite and increases feelings of fullness (satiety), leading to reduced caloric intake.
- Supports long-term weight management by decreasing body mass index (BMI).
- Improves insulin sensitivity, reducing fat storage and supporting overall metabolic health.

*GLP-1 receptor agonists offer several benefits beyond weight loss, making them valuable for treating various health conditions:*

#### Cardiovascular Benefits

*GLP-1 receptor agonists have shown significant cardiovascular benefits:*

- Reduce the risk of major adverse cardiovascular events (MACE) in patients with type 2 diabetes
- Lower rates of non-fatal myocardial infarction, non-fatal stroke, and cardiovascular death
- Improve heart health by reducing blood pressure and improving endothelial function
- Potential benefits for heart failure patients, particularly those with preserved ejection fraction

#### Renal Benefits

*GLP-1 receptor agonists have shown promise in kidney health:*

- Reduce the risk of renal diseases in type 2 diabetes patients
- Improve renal function in animal models of kidney damage

#### Anti-inflammatory Effects

*GLP-1 agonists have shown anti-inflammatory properties:*

- Reduce systemic inflammation
- Decrease inflammation in the small and large intestines

#### Cancer Risk Reduction

*Some studies suggest GLP-1 agonists may:*

- Lower the risk of certain cancers (pancreatic, colorectal, breast)
- Suppress tumor cell proliferation and induce cell death

#### Glycemic Control

*Originally developed for diabetes management, GLP-1 agonists:*

- Effectively lower blood glucose levels without causing hypoglycemia
- Stimulate insulin release and suppress glucagon secretion
- Improve beta cell survival and function

#### Hepatic Benefits

*These drugs may have positive effects on liver health:*

- Potential to reduce the incidence of metabolic liver diseases
- Decrease liver inflammation in patients with fatty liver disease

#### Neurological and Psychiatric Effects

*Emerging research suggests potential benefits in:*

- Reducing neuroinflammation and neurodegeneration
- Possible therapeutic effects in Parkinson's disease
- Potential improvements in Alzheimer's and other cognitive disorders

#### Addiction and Behavioral Health

*Preliminary evidence indicates potential benefits in:*

- Reducing alcohol consumption (though results are mixed)
- Possibly improving symptoms related to drug abuse and compulsive behaviors

**CONTRAINDICATIONS:**

- **History of Pancreatitis:** Individuals with a history of this condition should consult their healthcare provider.
- **Pregnant or Breastfeeding Women:** The safety of Tirzepatide during pregnancy or breastfeeding has not been established, so it is contraindicated in these populations.
- **Severe Gastrointestinal Disease:** People with conditions like gastroparesis should consult their healthcare provider as it slows gastric emptying and could exacerbate symptoms.
- **History of Medullary Thyroid Carcinoma:** Individuals with a personal or family history of medullary thyroid carcinoma should consult their healthcare provider.
- **Multiple Endocrine Neoplasia Syndrome Type 2 (MEN 2):** Individuals with MEN 2 are at increased risk of thyroid tumors.

**POTENTIAL SIDE EFFECTS:**

- **Nausea:** A common side effect, particularly during the initial stages of treatment, as the body adjusts to the medication.
- **Diarrhea:** Gastrointestinal disturbances like diarrhea can occur, especially with higher doses or dose escalation.
- **Decreased Appetite:** While decreased appetite can be beneficial for weight loss, it is imperative to ensure you are consuming an efficient amount of calories and nutrients.
- **Vomiting:** In some cases, patients may experience vomiting, particularly if doses are increased too quickly.
- **Constipation:** Less frequently, constipation may occur as the digestive system adjusts to slower gastric emptying.

**TIPS TO REDUCE SIDE EFFECTS & INCREASE EFFICIENCY:**

1. **Start with a Low Dose:** Begin with the lowest recommended dose to help the body adapt and reduce gastrointestinal side effects like nausea and vomiting.
2. **Split Doses Throughout the Week:** Dividing the weekly dose into 2-5 smaller injections can help maintain a steady hormone level and reduce side effects.
3. **Administer Before Meals:** Taking the injection before meals can help ease gastrointestinal discomfort by slowing gastric emptying.
4. **Stay Hydrated:** Drinking plenty of water can alleviate symptoms like nausea and is crucial for maintaining hydration, especially if experiencing diarrhea or vomiting.
5. **Gradually Increase Dosage:** Gradually increasing the dose over several weeks helps the body adjust better, reducing the intensity of side effects.
6. **Focus on High-Protein, Smaller Meals:** Eating smaller, high-protein meals can reduce gastrointestinal symptoms by easing the digestive load.
7. **Consider Adding Other Peptides or Vitamins:** Adding growth hormone peptides or other supplements may enhance the effects of GLP-1 peptides and optimize body composition.
8. **Monitor Progress:** Regular DEXA scans and blood tests can help track progress, ensuring sufficient nutrient intake, maintaining muscle mass, and promoting long-term health.

**WHAT IS RETATRUTIDE?**

Retatrutide is a next-generation multi-receptor agonist that targets three key receptors: GLP-1 (glucagon-like peptide-1), GIP (glucose-dependent insulinotropic polypeptide), and glucagon receptors. By engaging all three pathways, Retatrutide offers superior effects on glucose regulation, appetite suppression, and weight management compared to single-receptor agonists. This comprehensive approach supports overall metabolic health, weight loss, improved lipid profiles, and reduced cardiovascular risks.

**HELPS WITH:**

- **Metabolic Health & Weight Loss:** Effective for managing obesity, type 2 diabetes, pre-diabetes, metabolic syndrome, insulin resistance, and hyperlipidemia.
- **Cardiovascular Health:** Supports hypertension management, improves lipid profiles, and reduces cardiovascular disease risk.
- **Hormonal Conditions:** Helps manage PCOS, non-alcoholic fatty liver disease (NAFLD), and menopausal weight gain.
- **Mental Health:** Assists with depression, anxiety, and stress-induced eating, which are often linked to blood sugar fluctuations.
- **Addiction & Craving Management:** Helps reduce nicotine, alcohol, sugar cravings, and binge eating.
- **Anti-Inflammatory & Chronic Conditions:** Addresses chronic inflammation, osteoarthritis, and joint pain.

**VIAL DETAILS:**

**Large Vial (60mg / 2mL)**      **Small Vial (20mg / 1mL)**

Vial duration varies, as it depends on personal dosage use.

DOSING INSTRUCTIONS

We strive to provide highly personalized care for your use of GLP-1 medications like Retatrutide. Due to its wide range of benefits, different protocols are recommended for different goals. These protocols serve as general guidelines, but we highly encourage you to listen to your body to determine the pace and protocol that is best for you. Additionally, we offer multiple dosing schedule guides to help you determine the best dosing schedule for your unique needs.

This guide will help you choose a dosing protocol based on your specific goals, whether for weight loss, longevity, or overall health improvement. Adjust your dose as needed with guidance from your healthcare provider.

OPTION 1: BASELINE LONGEVITY LOW DOSE

Ideal for those seeking general health benefits without significant weight loss. It supports longevity and overall wellness.

General Dosing Instructions:

The standard low dose is 20 units (2 mg) weekly.

MICRO-DOSE is 10 units (1 mg) weekly.

This serves as a baseline for most patients, but adjustments can be made based on your specific health goals, body weight, and personal tolerance to the medication. You may choose to begin with a lower or higher weekly dose depending on your needs and how well you tolerate the medication.

| COMMON DOSING TIERS |   |          |
|---------------------|---|----------|
| 1mg                 | → | 10 units |
| 2mg                 | → | 20 units |
| 3mg                 | → | 30 units |

Dosing Options:

1. ONE INJECTION PER WEEK (Most Common)

**Pros:** Simple, easy to remember, requires less frequent injections.

**Cons:** May lead to stronger side effects in some individuals.

DOSING PER INJECTION:

2 mg = 20 units per injection.

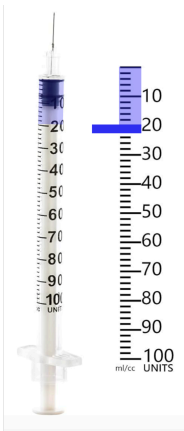
INJECTIONS PER WEEK:

1 injections weekly.

VIAL DURATION:

Small vial: Lasts 10 weeks at this dose and frequency.

Large vial: Lasts 30 weeks at this dose and frequency.



INJECTION SITE:

Administer injections into subcutaneous fat (such as the stomach, thigh, or arm).

TIME OF DAY:

Retatrutide can be injected any time of day. Some people prefer to time their weekly dosing on a weekend or time anticipating some side effects especially when first beginning.

WEEKLY PROTOCOL

| SUN | MON | TUES | WEDS | THURS   | FRI | SAT |
|-----|-----|------|------|---|-----|-----|
|     |     |      |      | <input type="checkbox"/> 20 units Retatrutide |     |     |

1 injection weekly (can be done any preferred day for you)

2. TWO INJECTIONS PER WEEK

**Pros:** Reduced side effects, more stable medication levels.

**Cons:** Requires more injections and planning.

DOSING PER INJECTION:

1 mg = 10 units per injection.

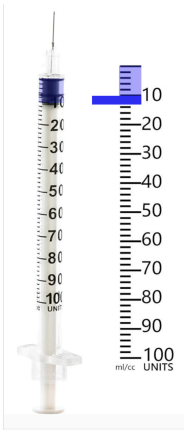
INJECTIONS PER WEEK:

2 injections weekly.

VIAL DURATION:

Small vial: Lasts 10 weeks at this dose and frequency.

Large vial: Lasts 30 weeks at this dose and frequency.



INJECTION SITE:

Administer injections into subcutaneous fat (such as the stomach, thigh, or arm).

TIME OF DAY:

Retatrutide can be injected any time of day.

Some people prefer to time their weekly dosing on a weekend or time anticipating some side effects especially when first beginning.

WEEKLY PROTOCOL

| SUN | MON   | TUES | WEDS | THURS   | FRI | SAT |
|-----|---|------|------|---|-----|-----|
|     | <input type="checkbox"/> 10 units Retatrutide |      |      | <input type="checkbox"/> 10 units Retatrutide |     |     |

2 injections weekly (can be done on any preferred days for you).

OPTION 2: WEIGHT LOSS

Ideal for those seeking significant weight loss and metabolic health improvement. This protocol focuses on a gradual increase in dosage to achieve optimal weight loss results while minimizing side effects.

General Dosing Instructions:

The recommended starting dose is 20 units (2 mg) weekly, with a gradual increase until your desired dose is reached. Many individuals choose to increase their dose by one tier every 2-4 weeks based on their tolerance and health goals. Once desired weight loss goals are reached, it is advised to slowly reduce the dose and continue taking a lower dose for ongoing metabolic and longevity benefits.

| COMMON DOSING TIERS |             |
|---------------------|-------------|
| 1mg                 | → 10 units  |
| 2mg                 | → 20 units  |
| 4mg                 | → 40 units  |
| 6mg                 | → 60 units  |
| 8mg                 | → 80 units  |
| 10mg                | → 100 units |
| 12mg                | → 120 units |

Dosing Options:

1. One Injection Per Week (Most Common)

WEEKLY PROTOCOL

| SUN | MON | TUES | WEDS | THURS  | FRI | SAT |
|-----|-----|------|------|--|-----|-----|
|     |     |      |      | <input type="checkbox"/> x units Retatrutide |     |     |

1 injection weekly (can be done any preferred day for you).

2. Two Injections Per Week

WEEKLY PROTOCOL

| SUN | MON  | TUES | WEDS | THURS  | FRI | SAT |
|-----|--|------|------|--|-----|-----|
|     | <input type="checkbox"/> x units Retatrutide |      |      | <input type="checkbox"/> x units Retatrutide |     |     |

2 injections weekly (can be done on any preferred days for you). Split your weekly dosing tier into 2 separate injections.