Tesamorelin

About

Tesamorelin is a GHRH analog that stimulates the body's natural production of growth hormone. It's being studied for its potential to reduce visceral fat, support lean muscle, enhance metabolism, and promote healthy aging through more natural, rhythmic hormone release.

What's Included

- Two vials, concentration: 10mg/8mL
- One vial lasts 2 weeks

Reconstitution kit

- (20) 29-30G subq needles
- (1) 5mL syringe
- (1) 25G needle with syringe
- (1) 10 mL bacteriostatic water

Clinical Research Potential Benefits:

- May help reduce visceral fat
- May stimulate natural HGH production
- May support lean muscle maintenance
- May improve cognitive function
- May enhance sleep quality and recovery

Clinical Research Suggested Use:

- Draw 80 units (1mg) into the syringe
- 5 days per week, 2 consecutive days off
- Administer at night 1 hour before bed on an empty stomach
- Duration: 3 months
- Reconstitute: add 8mL bacteriostatic water to the to the lyophilized powder vial
- Injection type: subcutaneous injection

Reconstitution & Administration*

*Instructions start on page 2

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Research Protocols

Performance and Recovery

Tesamorelin Reconstitution

STEP 1: Remove plastic covers, clean vial and bacteriostatic water top with alcohol pad for 15 seconds

STEP 2: Using the large syringe from your administration kit, pull out 8mL of Bacteriostatic water

- It may take a few repetitions to load your syringe with the 8mL with no air pockets

STEP 3: Once you've loaded your syringe, slowly inject the 8mL of Bacteriostatic water into your Tesamorelin vial:

- On its side to not damage the bonds of the product
- Do not shake, gently swirl if needed
- Allow the solution to sit for at least 5 minutes

***Supplies:** 5 mL syringe (large), 25G needle, Bacteriostatic water, Tesamorelin vial, Alcohol pad

STEP 1: With the smaller needle draw up 80 units of the Tesamorelin into the small syringe from your kit

***Supplies:** 29G-30G subcutaneous syringe with needle (small), Alcohol pad

STEP 1: Clean the injection area with an alcohol pad

STEP 2: Inject subcutaneously (see pg 3)

- Administer at night 1 hour before bed on an empty stomach
- Repeat 5 days per week, 2 consecutive days off
- Duration: 3 months
- One vial will lasts 2 weeks

****Precautions:**Contraindicated in individuals with a current diagnosis or history of cancer. Please consult with your provider before using.**

Injection Steps

Subcutaneous Injection steps:

1 Choose & Clean the Injection Site

- Use the abdomen (3 inches from the belly button), thigh, or upper arm. Rotate sites to prevent irritation. Clean the area with an alcohol swab and let it dry.

2 Inject

- Pinch 1 to 2 inches of skin, insert the needle at a 90° angle, and slowly push the plunger down.

3 Remove the Needle & Dispose

- Pull the needle out at the same angle, apply light pressure with gauze (don't rub), and dispose of the syringe in a sharps container.

4 Monitor for Reactions

- Mild redness or soreness is normal. Seek medical help if you experience severe pain, swelling, or an allergic reaction.

Intramuscular Injection steps:

1 Choose & Clean the Injection Site

- Use the thigh (vastus lateralis), upper arm (deltoid), or glute (ventrogluteal or dorsogluteal muscle).
  - Rotate sites to prevent soreness. Clean the area with an alcohol swab and let it dry.

2 Inject

- Stretch the skin taut, hold the syringe like a dart at a 90° angle, and insert the needle quickly and smoothly. Slowly push the plunger down to inject.

3 Remove the Needle & Dispose

- Pull the needle straight out, apply light pressure with gauze (don't rub), and dispose of the syringe in a sharps container.

4 Monitor for Reactions

- Mild soreness or redness is normal. Seek medical help if you experience severe pain, swelling, or an allergic reaction.

Tesamorelin Mechanism of Action

- **Growth Hormone–Releasing Hormone (GHRH) Analog:**
  - Tesamorelin is a synthetic analog of endogenous GHRH that binds to pituitary GHRH receptors, stimulating the pulsatile release of growth hormone (GH). This activation leads to increased circulating insulin-like growth factor-1 (IGF-1) levels, driving multiple anabolic and metabolic effects.

- **Visceral Fat Reduction and Lipolysis:**
  - Through activation of the GH/IGF-1 axis, Tesamorelin promotes lipolysis with preferential reduction of visceral adipose tissue. This targeted fat loss contributes to improved body composition and metabolic efficiency.

- **Muscle Protein Synthesis and Body Composition:**
  - Enhanced GH signaling supports muscle anabolism by stimulating amino acid uptake and protein synthesis within skeletal muscle. This promotes lean mass development and overall improvement in muscle-to-fat ratio.

- **Hepatic and Metabolic Regulation:**
  - Tesamorelin indirectly improves hepatic lipid metabolism by decreasing intrahepatic fat content and enhancing insulin sensitivity. The reduction in triglycerides and elevation in adiponectin levels further contribute to improved metabolic balance.

- **Mitochondrial Biogenesis and Cellular Energy:**
  - Upregulation of IGF-1 signaling enhances mitochondrial biogenesis, optimizing cellular energy production and metabolic resilience during periods of caloric restriction or metabolic stress.

- **Cognitive and Neurogenic Support:**
  - GH and IGF-1 activity influence hippocampal neurogenesis, supporting cognitive health and memory function. This neurotrophic effect may be mediated by increased brain-derived neurotrophic factor (BDNF) expression.

- **Sleep and Recovery:**
  - Tesamorelin promotes natural GH pulsatility, which is closely tied to deep (slow-wave) sleep cycles. Improved GH rhythms enhance recovery, tissue repair, and hormonal balance.

- **Cardiovascular and Metabolic Homeostasis:**
  - By improving lipid metabolism, reducing visceral fat, and supporting endothelial function, Tesamorelin contributes to overall cardiovascular health and systemic metabolic homeostasis.