

# TESAMORELIN

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Tesamorelin is a Growth Hormone-Releasing Hormone (GHRH) analog that stimulates the pituitary gland to produce and release growth hormone (GH). It is commonly used to reduce abdominal fat in patients with HIV to reduce excess visceral fat, improve lipid profiles, and enhance body composition. However, it is increasingly being used for a variety of other benefits related to metabolism, body fat, and growth hormone deficiencies.

## HOW IT WORKS / MECHANISM OF ACTION

Tesamorelin binds to GHRH receptors in the pituitary gland, which in turn stimulates the release of endogenous growth hormone. This increase in GH production results in elevated levels of insulin-like growth factor 1 (IGF-1), which plays a crucial role in promoting lipolysis (fat breakdown), protein synthesis, and muscle growth. This mechanism makes Tesamorelin particularly effective in reducing visceral adipose tissue and improving overall body composition. It also enhances metabolic functions by modulating lipid metabolism and insulin sensitivity.

## BENEFITS

- **Improved Lipid Profiles:** Tesamorelin has demonstrated positive effects on lipid metabolism, including reductions in triglyceride and LDL cholesterol levels, which helps mitigate cardiovascular disease risk.
- **Enhanced Cognitive Function:** Studies suggest that Tesamorelin can improve memory, focus, and overall cognitive performance. This effect is linked to the increased IGF-1 levels that result from the stimulation of growth hormone release.
- **Increased Muscle Mass and Physical Performance:** Tesamorelin stimulates protein synthesis, leading to enhanced muscle mass and strength. This is particularly beneficial for patients experiencing muscle wasting and for athletes aiming to improve body composition and recovery.
- **Skin and Cardiovascular Health Benefits:** Tesamorelin has been associated with improved skin health, including increased collagen production and reduced wrinkles. Additionally, it may reduce carotid intima-media thickness, a marker of atherosclerosis, suggesting potential cardiovascular benefits.
- **Metabolic Boost:** Tesamorelin increases energy expenditure, improving overall metabolism. Promoting fat reduction, particularly in stubborn areas. This effect helps improve body composition and supports weight loss goals by promoting fat reduction, particularly in stubborn areas.

## CONTRAINDICATIONS

- **Pregnancy and Breastfeeding:** Tesamorelin is contraindicated for pregnant or breastfeeding women due to the lack of established safety in these populations.
- **Active Cancer:** Since Tesamorelin stimulates growth hormone, patients with active cancer should avoid using Tesamorelin unless specifically recommended by a healthcare provider.
- **Pituitary Gland Disorders:** Patients with a history of pituitary gland dysfunction should avoid using Tesamorelin unless specifically recommended by a healthcare provider.

## HELPS WITH

- Visceral fat reduction
- Reduced physical strength
- Metabolic syndrome
- Abdominal obesity
- Muscle wasting
- Cognitive decline
- Alzheimer's disease
- Insulin resistance
- Non-alcoholic fatty liver disease (NAFLD)
- Elevated triglycerides
- High LDL cholesterol
- Atherosclerosis
- Cardiovascular disease risk
- Age-related sarcopenia
- Reduced physical strength
- Memory loss
- Focus issues
- Poor metabolism
- Collagen loss
- Wrinkles and skin aging
- Carotid artery thickening
- Fatigue
- Slow recovery
- Hormonal imbalance
- Poor muscle tone
- HIV-associated lipodystrophy

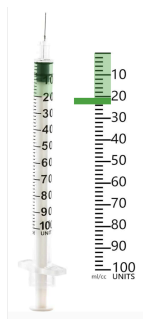
## EXPECTED EFFECTS AND TIMELINE OF BENEFITS

- **1-2 Weeks:** Improvements in sleep quality and initial reductions in visceral fat are typically noticed.
- **4-6 Weeks:** Significant reductions in abdominal fat and improvements in lipid profiles are often observed by this point. Muscle mass and strength may also begin to improve.
- **8-12 Weeks:** Full benefits, including substantial reductions in visceral fat, enhanced cognitive function, and improvements in body composition, become evident. In a phase III clinical trial, a reduction of up to 15% in visceral adipose tissue was reported in patients with HIV-associated lipodystrophy.
- **Long-Term:** Continuous use of Tesamorelin can lead to sustained improvements in physical performance, reduced cardiovascular risk factors, and enhanced overall quality of life.

## DOSING INSTRUCTIONS

**DOSING:**

1.25 mg = 20 units per injection.

**INJECTIONS PER WEEK:**

5 injections weekly

**RECOMMENDED CYCLE:**

3 months on (+), 1 off (-).

3 cycles per year.

**VIAL DETAILS:** 25mg / 4mL

**VIAL DURATION:** 4 weeks

**INJECTION SITE:**

Subcutaneous fat on the stomach, thigh, or arm.

**TIME OF DAY:**

Tesamorelin is typically injected **in the evening or before bedtime**. This aligns with the body's natural peak in growth hormone release during sleep, enhancing effectiveness.

## WEEKLY PROTOCOL

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

5 injections weekly.

## MONTHLY PROTOCOL

	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
Tesamorelin	+	+	+	-	+	+	+	-	+	+	+	-
	CYCLE 1				CYCLE 2				CYCLE 3			

3 months on (+), 1 month off (-).

3 cycles per year.

## POTENTIAL SIDE EFFECTS

- **Injection Site Reactions:** Common side effects include redness, swelling, or mild discomfort at the injection site, which typically resolve on their own.
- **Mild Flu-Like Symptoms:** Some users report fatigue, headache, or nausea, particularly during initial use.
- **Muscle and Joint Pain:** Some users may experience mild muscle or joint pain, which can become more pronounced in certain cases.

Please contact us if you experience any of the following:

- Fever of 100.4°F (38°C) or higher
- Blistering at the injection site
- Muscle aches, nausea, dizziness, or headache
- Skin rash, severe itching, vomiting, or hives

If you have any questions, please message your healthcare provider through the patient portal or contact us at **646-596-7386**.

## TIPS TO REDUCE SIDE EFFECTS

- **Start with a Lower Dose:** Gradually increase the dose to minimize the risk of side effects;
- **Rotate Injection Sites:** This helps prevent irritation and reduces the risk of injection site reactions.
- **Take Before Bedtime:** Administering the injection before sleep can help align with the body's natural growth hormone release and reduce unwanted side effects.
- **Monitor Blood Sugar:** Regular monitoring of fasting glucose levels and HbA1c is recommended, especially for individuals with pre-existing glucose intolerance or a history of diabetes.
- **Consult a Healthcare Provider Regularly:** Professional guidance ensures proper dosage adjustments and monitoring of any adverse reactions, which is crucial for safe and effective use.