

Tesamorelin Comprehensive Dosing Guide

(5 mg / 10 mg / 20 mg Vials)

I. Overview

Tesamorelin is a synthetic 44-amino-acid peptide analog of Growth Hormone-Releasing Hormone (GHRH)[1]. It stimulates endogenous growth hormone release and raises IGF-1 levels, leading to enhanced lipolysis and metabolic benefits[2]. Tesamorelin is FDA-approved for reducing visceral adipose tissue in HIV-associated lipodystrophy and is studied for metabolic disorders and aging research[3][4].

This guide covers dosing regimens for **5 mg**, **10 mg**, and **20 mg** vial sizes, all based on once-daily subcutaneous administration, intended for educational and research purposes only.

II. Dosage and Reconstitution Guidelines

2.1 5 mg Vial

Reconstitution: Add **2.5 mL** of bacteriostatic water → Concentration approx. **2.0 mg/mL**

U-100 Insulin Syringe Conversion: 1 unit = 0.01 mL ≈ **20 mcg**

Shelf Life After Reconstitution: Use within **7 days** when refrigerated (2–8°C)

Standard Protocol (Concentration ~2.0 mg/mL):

Phase	Weeks	Daily Dose	Injection Volume (mL)	Units
Initial	Week 1	1 mg (1000 mcg)	0.50 mL	50 units
Maintenance	Weeks 2–12+	2 mg (2000 mcg)	1.00 mL	100 units

Injection Frequency: Once daily subcutaneous injection, preferably in the **evening** to coincide with nocturnal GH release.

Cycle Length: 12–26 weeks; clinical trials support up to 52 weeks with monitoring.

2.2 10 mg Vial

Reconstitution: Add **3.0 mL** of bacteriostatic water → Concentration approx. **3.33 mg/mL**

U-100 Insulin Syringe Conversion: 1 unit = 0.01 mL ≈ **33.3 mcg**

Shelf Life After Reconstitution: Use within **7 days** when refrigerated (2–8°C)

Standard Protocol (Concentration ~3.33 mg/mL):

Phase	Weeks	Daily Dose	Injection Volume (mL)	Units
Initial	Week 1	1 mg (1000 mcg)	0.30 mL	30 units

This dosage reference is for informational and research purposes only.
It does not replace professional medical advice and is not for human consumption.

Phase	Weeks	Daily Dose	Injection Volume (mL)	Units
Maintenance	Weeks 2–12+	2 mg (2000 mcg)	0.60 mL	60 units

Injection Frequency: Once daily subcutaneous injection, preferably in the **evening**.

Cycle Length: 12–26 weeks; can be extended to 52 weeks.

2.3 20 mg Vial

Reconstitution: Add **3.0 mL** of bacteriostatic water → Concentration approx. **6.67 mg/mL**

U-100 Insulin Syringe Conversion: 1 unit = 0.01 mL ≈ **66.7 mcg**

Shelf Life After Reconstitution: Use within **7 days** when refrigerated (2–8°C)

Standard Protocol (Concentration ~6.67 mg/mL):

Phase	Weeks	Daily Dose	Injection Volume (mL)	Units
Initial	Week 1	1 mg (1000 mcg)	0.15 mL	15 units
Maintenance	Weeks 2–12+	2 mg (2000 mcg)	0.30 mL	30 units

Injection Frequency: Once daily subcutaneous injection, preferably in the **evening**.

Cycle Length: 12–26 weeks; can be extended to 52 weeks.

III. Reconstitution Steps (General)

1. Draw the specified volume of bacteriostatic water (**2.5 mL** for 5 mg vial; **3.0 mL** for 10 mg and 20 mg vials) into a sterile syringe.
2. Inject slowly down the vial wall; avoid foaming or directly impacting the lyophilized powder.
3. Gently swirl/roll until the powder is fully dissolved (do not shake vigorously).
4. Label the vial with the reconstitution date and concentration. Store refrigerated (2–8°C / 35.6–46.4°F), protected from light.
5. Use within **7 days** after reconstitution; do not use if solution appears cloudy or discolored.

IV. Required Supplies

4.1 5 mg Vial

Peptide Vials (Tesamorelin, 5 mg each):

8-week cycle: ≈ 23 vials (112 mg total)

12-week cycle: ≈ 34 vials (168 mg total)

16-week cycle: ≈ 45 vials (224 mg total)

Insulin Syringes (U-100, 1 mL capacity):

Per week: 7 syringes (1 per day)

8 weeks: 56 syringes

12 weeks: 84 syringes

16 weeks: 112 syringes

Bacteriostatic Water (10 mL vials): Use 2.5 mL per vial for reconstitution.

8 weeks (23 vials): 57.5 mL → 6 × 10 mL vials

12 weeks (34 vials): 85 mL → 9 × 10 mL vials

16 weeks (45 vials): 112.5 mL → 12 × 10 mL vials

Alcohol Swabs: One for the vial stopper and one for the injection site daily.

Per week: 14 swabs (2 per day)

8 weeks: 112 swabs → Recommend 2 × 100-count boxes

This dosage reference is for informational and research purposes only.
It does not replace professional medical advice and is not for human consumption.

12 weeks: 168 swabs → Recommend 2 × 100-count boxes

16 weeks: 224 swabs → Recommend 3 × 100-count boxes

4.2 10 mg Vial

Peptide Vials (Tesamorelin, 10 mg each):

8-week cycle: ≈ 11 vials (105 mg total)

12-week cycle: ≈ 17 vials (161 mg total)

16-week cycle: ≈ 22 vials (217 mg total)

Insulin Syringes (U-100, 1 mL capacity):

Per week: 7 syringes (1 per day)

8 weeks: 56 syringes

12 weeks: 84 syringes

16 weeks: 112 syringes

Bacteriostatic Water (10 mL vials): Use 3.0 mL per vial for reconstitution.

8 weeks (11 vials): 33 mL → 4 × 10 mL vials

12 weeks (17 vials): 51 mL → 6 × 10 mL vials

16 weeks (22 vials): 66 mL → 7 × 10 mL vials

Alcohol Swabs:

Per week: 14 swabs

8 weeks: 112 swabs → Recommend 2 × 100-count boxes

12 weeks: 168 swabs → Recommend 2 × 100-count boxes

16 weeks: 224 swabs → Recommend 3 × 100-count boxes

4.3 20 mg Vial

Peptide Vials (Tesamorelin, 20 mg each):

8-week cycle: ≈ 6 vials (105 mg total)

12-week cycle: ≈ 9 vials (161 mg total)

16-week cycle: ≈ 11 vials (217 mg total)

Insulin Syringes (U-100, 1 mL capacity):

Per week: 7 syringes (1 per day)

8 weeks: 56 syringes

12 weeks: 84 syringes

16 weeks: 112 syringes

Bacteriostatic Water (10 mL vials): Use 3.0 mL per vial for reconstitution.

8 weeks (6 vials): 18 mL → 2 × 10 mL vials

12 weeks (9 vials): 27 mL → 3 × 10 mL vials

16 weeks (11 vials): 33 mL → 4 × 10 mL vials

Alcohol Swabs:

Per week: 14 swabs

8 weeks: 112 swabs → Recommend 2 × 100-count boxes

12 weeks: 168 swabs → Recommend 2 × 100-count boxes

16 weeks: 224 swabs → Recommend 3 × 100-count boxes

V. Protocol Overview

This dosage reference is for informational and research purposes only.
It does not replace professional medical advice and is not for human consumption.

5.1 5 mg Vial

Goal: Reduce visceral adipose tissue and improve lipid profiles through sustained GH/IGF-1 elevation.

Schedule: Daily subcutaneous injections for 12–26 weeks (extendable to 52 weeks with medical supervision).

Dose: 1 mg (1000 mcg) in Week 1 for tolerability assessment, then 2 mg (2000 mcg) daily from Week 2.

Reconstitution: 2.5 mL per 5 mg vial (2.0 mg/mL) for accurate measurement.

Storage: Lyophilized refrigerated; reconstituted refrigerated up to 7 days; avoid freeze-thaw.

5.2 10 mg Vial

Goal: Reduce visceral adipose tissue and improve lipid profiles through sustained GH/IGF-1 elevation.

Schedule: Daily subcutaneous injections for 12–26 weeks (extendable to 52 weeks).

Dose: 1 mg (1000 mcg) in Week 1, then 2 mg (2000 mcg) daily from Week 2.

Reconstitution: 3.0 mL per 10 mg vial (~3.33 mg/mL).

Storage: Lyophilized refrigerated; reconstituted refrigerated up to 7 days; avoid freeze-thaw.

5.3 20 mg Vial

Goal: Reduce visceral adipose tissue and improve lipid profiles through sustained GH/IGF-1 elevation.

Schedule: Daily subcutaneous injections for 12–26 weeks (extendable to 52 weeks).

Dose: 1 mg (1000 mcg) in Week 1, then 2 mg (2000 mcg) daily from Week 2.

Reconstitution: 3.0 mL per 20 mg vial (~6.67 mg/mL).

Storage: Lyophilized refrigerated; reconstituted refrigerated up to 7 days; avoid freeze-thaw.

VI. Dosing Protocol (Common to All Vial Sizes)

Starting Dose: 1 mg (1000 mcg) daily for Week 1, to assess tolerance.

Target Dose: Increase to 2 mg (2000 mcg) daily from Week 2 and maintain. This is the standard FDA-approved regimen.

Frequency: Once daily (subcutaneous), preferably in the evening.

Cycle Length: 12–26 weeks; clinical trials support up to 52 weeks with monitoring.

Administration Time: Consistent time recommended (evening); rotate injection sites.

VII. Storage Instructions

Lyophilized Powder: Store at 2–8°C (35.6–46.4°F) for short-term; newer formulations (Egrifta SV) stable at 20–25°C (68–77°F) before reconstitution.

After Reconstitution (with bacteriostatic water): Refrigerate at 2–8°C (35.6–46.4°F); use within 7 days.

Reconstituted (with sterile water): Use immediately; discard any unused portion.

Avoid: Freezing the reconstituted solution; avoid repeated freeze-thaw cycles.

VIII. Important Notes

Use a new, sterile syringe for each injection; dispose of in a sharps container.

Rotate injection sites (abdomen—at least 2 inches from navel, thighs, upper arms) to minimize local irritation.

Inject slowly and steadily; wait a few seconds before withdrawing the needle.

Monitor IGF-1 levels periodically due to potent GH stimulation; observe blood glucose in diabetic patients.

Record daily dosage and injection site to maintain consistency.

IX. How This Works

Tesamorelin mimics natural human GHRH by binding to pituitary GHRH receptors, triggering pulsatile growth hormone secretion and consequent IGF-1 elevation. This cascade promotes lipolysis (fat breakdown), protein synthesis, and favorable metabolic shifts. In HIV-associated lipodystrophy,

This dosage reference is for informational and research purposes only.
It does not replace professional medical advice and is not for human consumption.

daily tesamorelin significantly reduces visceral adipose tissue and improves lipid profiles over 6–12 months. Research also explores tesamorelin's potential to reduce liver fat in NAFLD patients and enhance cognitive function in older adults.

X. Potential Benefits & Side Effects

Potential Benefits

Significant reduction in visceral adipose tissue (measurable after 3–6 months).

Improved lipid profiles and potential liver fat reduction in NAFLD.

Enhanced cognitive function in older adults (research ongoing).

Well-tolerated with maintained benefits during continuous use up to 52 weeks.

Common Side Effects

Injection-site reactions: Mild redness, itching, pain, or bruising.

Musculoskeletal symptoms: Joint pain (arthralgia), muscle aches, peripheral edema (mild swelling).

Carpal tunnel symptoms: Occasional tingling or numbness in extremities (dose-dependent, reversible).

Metabolic monitoring: IGF-1 elevation requires monitoring; small increases in HbA1c observed in some patients.

Contraindications

Active malignancies (tesamorelin may accelerate growth of latent tumors).

Pregnancy (may harm fetus).

Known hypersensitivity to tesamorelin or mannitol.

XI. Lifestyle Factors

Combine with a **balanced, protein-forward diet** to support GH/IGF-1 anabolic effects.

Integrate **resistance training and aerobic activity** to maximize fat loss and metabolic benefits.

Prioritize **7–9 hours of quality sleep** to optimize natural GH pulsatility.

Manage stress through **mindfulness or relaxation techniques** to support adherence and recovery.

XII. Injection Technique (Based on Clinical Guidelines)

Clean the vial stopper and the selected skin site with alcohol swabs; allow them to air dry completely.

Pinch a skinfold at the injection site (abdomen preferred, at least 2 inches from navel).

Insert the needle at **90°** (if adequate subcutaneous fat) or **45°** (if lean) into the pinched skin fold.

Release the pinch, then inject slowly and steadily.

After complete injection, keep the needle in place for 2–3 seconds before withdrawing to ensure full delivery.

Systematically rotate injection sites (left/right abdomen, thighs, upper arms) to avoid lipohypertrophy.

Dispose of used needles immediately in a puncture-proof sharps container.

Important Disclaimer: This content is intended for **educational and research reference** purposes only and does not constitute medical advice, diagnosis, or treatment recommendations. Tesamorelin is a prescription medication (FDA-approved as Egrifta®) for HIV-related lipodystrophy. Any off-label research use should comply with applicable laws and be conducted under appropriate supervision. This product is provided for laboratory research purposes only and is not intended for human or veterinary use. Consult a qualified medical professional before considering any therapeutic use.

This dosage reference is for informational and research purposes only.
It does not replace professional medical advice and is not for human consumption.



Research Use Only – Not Medical Advice, Not For Human Use

Research Use Only

This dosage reference is for informational and research purposes only.
It does not replace professional medical advice and is not for human consumption.