

Kisspeptin (10 mg Vial) Comprehensive Dosing Guide

I . Overview

Kisspeptin (also known as metastin) is a naturally-occurring neuroendocrine peptide that plays a critical role in human reproduction by stimulating gonadotropin-releasing hormone (GnRH) secretion [1]. This small peptide binds to GPR54 receptors in the hypothalamus, triggering pulsatile GnRH release and subsequent downstream secretion of luteinizing hormone (LH) and follicle-stimulating hormone (FSH) [2]. Originally discovered as a metastasis-suppressing gene product, kisspeptin has become a major focus in reproductive endocrinology [3]. This educational protocol presents a research-oriented once-daily subcutaneous injection method. This guide covers dosing protocols for 10 mg vials.

Research Background: For evidence regarding mechanism of action, human and pre-clinical studies, limitations and safety profiles, please refer to relevant reviews on kisspeptin peptides.

II . Reconstitution & Dosing Guidelines

10 mg Specification

Reconstitution: Add 3.0 mL bacteriostatic water → approximate concentration 3.33 mg/mL

Typical daily dose range: 100–200 mcg subcutaneously once-daily (gradual titration recommended)

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

Shelf-life after reconstitution: Stable for approximately 4 weeks under refrigeration (2–8 °C) [16]

Standard / Progressive Titration Protocol (Once-daily subcutaneous injection)

Weeks	Daily Dose (mcg)	Injection Volume (mL)	Syringe Units
Weeks 1-2	100 mcg	0.03 mL	3 units
Weeks 3-8 (or 3-12)	200 mcg	0.06 mL	6 units

Frequency: Once-daily subcutaneous injection. This protocol uses conservative titration to assess individual response [4][5].

Syringe Recommendation: For doses ≤10 units (≤0.10 mL), consider 30-unit or 50-unit insulin syringes for improved readout accuracy.

III. Reconstitution Steps

1. Draw 3.0 mL bacteriostatic water using a sterile syringe.
2. Inject slowly along the inner vial wall to avoid foaming.
3. Gently swirl / roll the vial until fully dissolved (do not shake vigorously).
4. Label with concentration and reconstitution date; store refrigerated at 2-8 °C (35.6-46.4 °F), protected from light.

IV. Required Supplies

Planning based on an 8- to 16-week daily-dosing regimen.

- Peptide vials (Kisspeptin, 10 mg per vial):
 - 8-week cycle: ≈ 1 vial
 - 12-week cycle: ≈ 2 vials
 - 16-week cycle: ≈ 3 vials
- Insulin syringes (U-100):
 - Weekly: 7 syringes (1 per day)
 - 8 weeks: 56 syringes
 - 12 weeks: 84 syringes
 - 16 weeks: 112 syringes
- Bacteriostatic water (10 mL vial): Use ~3.0 mL per peptide-vial reconstitution.
 - 8 weeks (1 vial): 3 mL → 1 × 10 mL vial
 - 12 weeks (2 vials): 6 mL → 1 × 10 mL vial

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

- 16 weeks (3 vials): 9mL → 1 × 10 mL vial
- Alcohol swabs: One for vial stopper, one for injection site each day.
 - Weekly: 14 swabs (2 per day)
 - 8 weeks: 112 swabs → recommend 2 × boxes of 100-count
 - 12 weeks: 168 swabs → recommend 2 × boxes of 100-count
 - 16 weeks: 224 swabs → recommend 3 × boxes of 100-count

V. Protocol Summary

Brief Summary:

Goal: Support physiological reproductive-hormone signaling via upstream GnRH stimulation [1].

Cycle Schedule: Daily subcutaneous injection for 8-12 weeks.

Dose Range: 100-200 mcg per day with gradual titration.

Reconstitution: 3.0 mL diluent per 10 mg vial (~3.33 mg/mL) for precise low-volume dosing.

Storage: Freeze lyophilized powder; refrigerate reconstituted solution; avoid repeated freeze-thaw cycles.

VI. Dosing Protocol

Initiation Phase: 100 mcg daily for 1-2 weeks to evaluate sensitivity [4].

Titration Phase: Increase to 200 mcg daily if well-tolerated and indicated [5].

Frequency: Once-daily subcutaneous injection.

Cycle Duration: 8-12 weeks; avoid prolonged continuous administration to prevent tachyphylaxis [6].

Injection Timing: Administer at a consistent daily time; rotate injection sites.

VII. Storage Instructions

Proper storage preserves peptide integrity.

Lyophilized powder: Store dry, protected from light at –20 °C (–4 °F); desiccant is preferred when available [15].

Reconstituted solution: Refrigerate at 2-8 °C (35.6-46.4 °F); stable for approximately 4 weeks [16]; avoid freeze-thaw cycles.

Before use: Allow vial to reach room temperature to minimize condensation-related absorption.

VIII. Important Considerations

Practical points for consistency and safety.

Use a new sterile insulin syringe for every injection; discard into sharps container.

Rotate injection sites (abdomen, thighs, upper arms) to reduce local irritation [13].

Inject slowly; wait several seconds before withdrawing the needle.

Document daily dose and site rotation to maintain consistency.

Discard bacteriostatic water 28 days after opening [17].

IX. Potential Benefits & Applications

Research on kisspeptin reveals multiple potential benefits for reproductive health.

Physiologic sex-hormone stimulation: Amplify endogenous LH/FSH signaling to raise endogenous testosterone and estrogen without suppressing the HPG axis [11].

Fertility restoration: Promise for re-establishing GnRH/LH pulsatility and menstrual cyclicity in functional hypothalamic amenorrhea [12].

IVF ovulation trigger: Induce robust LH surge for oocyte maturation; may lower risk of ovarian hyperstimulation syndrome compared with conventional hCG triggering [13][14].

Safety profile: Generally well-tolerated; occasional mild local injection-site reactions (redness / pruritus) with subcutaneous administration.

X. Injection Technique

General subcutaneous injection guidance derived from clinical best-practice resources [18][19].

Wipe vial stopper and skin with alcohol; allow to dry completely.

Pinch skin fold; insert needle at 45-90° into subcutaneous tissue (45° for lean subjects, 90° for individuals with adequate subcutaneous fat) [18].

No aspiration required for subcutaneous injection; inject slowly and smoothly [19].

Systematically rotate sites (abdomen ≥2 inches from navel, outer thighs, upper arms, upper-outer buttocks) to prevent tissue irritation [13].

Use a new sterile syringe for each dose; dispose used syringes into appropriate sharps container [20].

Important Disclaimer: This document serves educational purposes only and does not constitute medical advice, diagnosis or treatment. Kisspeptin is for research- only use. Consult a qualified healthcare practitioner prior to initiating any peptide regimen. Individual responses vary; adequate medical supervision is essential for safety and efficacy monitoring.

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