

What should be in the bag

VIAL	Freeze-dried powder; label states drug, total mg, lot, and beyond-use date
DILUENT	Bacteriostatic water for a multi-dose vial. Sterile water is single-use only.
SYRINGES	U-100 insulin, 0.3 to 1 mL, 29–31 gauge, 5/16 inch. 100 units = 1 mL.
ALSO	Alcohol swabs; a sharps container (a capped detergent bottle works)
LABEL MUST SHOW	Concentration after mixing, your dose in mg or mcg and in units, storage, the pharmacist's number

BACTERIOSTATIC, NOT STERILE

Sterile water has no preservative; a vial punctured for weeks becomes a culture medium. Bacteriostatic water's benzyl alcohol suppresses growth between uses.

This pamphlet is for adults prescribed a compounded injectable and dispensed a vial rather than a pen. Your pharmacy's label and your prescriber's instructions override anything here.

Before the first injection, confirm

- ☐ The label shows the concentration after mixing and my dose in units.
- ☐ I have bacteriostatic water, not sterile water, for a multi-dose vial.
- ☐ I wrote the mixing date and concentration on the vial.
- ☐ I read the syringe at eye level and the number matches the label.
- ☐ I know the beyond-use date and where the vial lives in the fridge.
- ☐ I have the pharmacist's number, and a sharps container.

SOURCES

1. American Diabetes Association. Insulin administration: technique and site selection. Diabetes Care, Standards of Care in Diabetes, current edition; and Frid AH, et al. New insulin delivery recommendations (FITTER). Mayo Clin Proc. 2016;91(9):1231-1255.
2. Bacteriostatic water for injection, USP. Prescribing information (benzyl alcohol 0.9%; not for use in neonates). Hospira/Pfizer.
3. United States Pharmacopeia. General Chapter <797> Pharmaceutical Compounding — Sterile Preparations (beyond-use dating of multiple-dose containers). 2023 revision.
4. U.S. Food and Drug Administration. FDA's concerns with unapproved GLP-1 drugs used for weight loss (dosing errors with compounded vials). Updated 2025.
5. Centers for Disease Control and Prevention. Safe injection practices; and Safe needle disposal for people who self-inject at home.
6. Zepbound, Wegovy, and Ozempic prescribing information: storage and in-use periods at room temperature. Eli Lilly and Company; Novo Nordisk. Current revisions.

This guide is an educational summary and is not medical advice. It describes standard technique for a prescribed, pharmacy-dispensed injectable; the label on your vial and your prescriber's and pharmacist's instructions take precedence. Worked examples use illustrative concentrations and are not doses. Nothing here is a reason to obtain or inject a product that was not prescribed to you and dispensed by a licensed pharmacy.

Newport Peptide Society

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FIRST EDITION · SEPTEMBER 2026 · REVISED
SEPTEMBER 15, 2026

READER'S GUIDE

Reconstitution, Injection, and Storage

The mechanics of a prescribed peptide, from powder to syringe to sharps bin

Approved peptide drugs mostly arrive in pens that hide the mechanics. Compounded peptides arrive as a vial of powder, a vial of water, and a bag of syringes, and the pharmacy's counseling is often a printed sheet. This guide covers what the sheet leaves out: which water, how much, how to draw a dose, where to inject, how long a mixed vial lasts, and what to do when something goes wrong.

Reconstitute, then calculate

- ☐ Wash hands; let vial and water reach room temperature.
- ☐ Swab both stoppers; let dry.
- ☐ Draw the stated volume of bacteriostatic water.
- ☐ Run the water down the inside wall of the vial, not onto the powder.
- ☐ Swirl or roll until clear. Never shake.
- ☐ Inspect against light: clear, no particles.
- ☐ Write the date, time, and concentration on the label.

UNITS = (DOSE ÷ CONCENTRATION) × 100

Same unit for dose and concentration. 5 mg + 2 mL = 2,500 mcg/mL, so 250 mcg = 0.1 mL = 10 units. 10 mg + 1 mL = 10 mg/mL, so 2.5 mg = 0.25 mL = 25 units. One misplaced decimal is a tenfold or thousandfold error.

VIAL + WATER	DOSE	DRAW
5 mg + 2 mL	250 mcg	10 units
5 mg + 2 mL	500 mcg	20 units
10 mg + 1 mL	2.5 mg	25 units
10 mg + 1 mL	5 mg	50 units

Illustrative concentrations. Your label governs.

Draw and inject

- ☐ Swab the stopper. Draw air to your unit mark; inject the air into the vial.
- ☐ Invert the vial, tip below the liquid, pull past your dose.
- ☐ Tap bubbles up; push to your exact mark. Read at eye level. Wrong? Push back and redraw.
- ☐ Swab the site; let it dry.
- ☐ Pinch a fold if lean. Insert at 90° (45° if thin) in one motion.
- ☐ Press slowly, count to five, withdraw. Press with a dry swab; do not rub.
- ☐ Syringe into sharps, uncapped.

SITES: ROTATE; AVOID BRUISES, SCARS, HARD SKIN

SITE	WHERE
Abdomen	Two inches from the navel, within a hand's width
Thigh	Front or outer, midway hip to knee
Upper arm	Back of the arm; usually needs a helper

- Weekly drugs: same day each week; at least three days between doses.
- Never share a syringe, needle, or multi-dose vial.

Store, and when it goes wrong

- MIXED VIAL Refrigerated (36–46 °F), upright, dark. Pharmacy sets the beyond-use date; 28 days after first puncture is the usual default.
- UNMIXED Refrigerated for months as labeled
- TRAVEL Insulated pouch with cold pack; never checked luggage or a hot car
- DISCARD Past the date, cloudy, frozen after mixing, or left warm

PROBLEM	DO
Drew too much	Push back and redraw; never "make it up next time"
Injected too much	Call the pharmacy or prescriber now; Poison Control 1-800-222-1222
Unsure if injected	Do not double; wait for the next dose
Red, hot, swollen site	Contact the prescriber the same day
Hives, wheezing, throat swelling	Call 911

NO PHARMACY, NO BEYOND-USE DATE

A chemical supplier assigns nothing. If a pharmacy did not dispense the vial, no one knows how long it stays potent or sterile once mixed.