# GLOW Peptide Protocol | *GHK-Cu • BPC-157 • TB-500*

GLOW combines three of the most clinically supported regenerative peptides into a single compounded injectable protocol. Each works through a distinct mechanism — collagen signaling, tissue healing, and cellular repair — creating a synergistic effect no single peptide achieves alone. The result: improved skin quality, accelerated healing, and whole-body regeneration from the inside out.

## GHK-Cu

*Copper Tripeptide-1 — Collagen & Regeneration Signal*

A naturally occurring copper-binding tripeptide that declines ~60% between ages 20–60. Activates over 4,000 genes involved in tissue repair and triggers fibroblasts to rebuild the structural proteins of skin.

**Mechanisms:**

- Stimulates Type I & III collagen and elastin synthesis
- Increases glycosaminoglycans — skin moisture and plumpness
- Promotes angiogenesis — improves nutrient delivery to skin
- Upregulates antioxidant enzymes — reduces oxidative skin damage
- Anti-fibrotic: downregulates TGF-β1, prevents excess scarring
- Activates Nrf2 — master cellular repair and detox pathway
- Resets gene expression toward a younger regenerative state
- Supports hair follicle stem cells — density and regrowth

**Best For:**

- Fine lines, wrinkles, skin laxity
- Hyperpigmentation, photodamage, uneven tone
- Scar remodeling — acne, surgical, stretch marks
- Hair thinning and scalp health
- Post-procedure healing acceleration

## BPC-157

*Body Protection Compound — Master Tissue Healer*

A 15-amino acid peptide from gastric juice protein. Heals virtually every tissue type — tendons, ligaments, gut, nerves, skin, and blood vessels — while creating the anti-inflammatory foundation the other peptides need to work.

**Mechanisms:**

- Upregulates VEGFR2 — rapid angiogenesis and new vessel growth
- Activates nitric oxide system — improves tissue oxygenation
- Modulates FAK-paxillin — accelerates repair cell migration
- Reduces TNF-α, IL-6 — resolves chronic inflammation
- Restores gut lining tight junction integrity
- Neuroprotective: supports nerve regeneration
- Upregulates GH receptors in connective tissue
- Stable systemically and locally at injection site

**Best For:**

- Tendon, ligament, joint, and muscle repair
- Chronic pain and systemic inflammation
- Gut healing — leaky gut, IBD, barrier repair
- Skin repair and barrier restoration
- Neurological support and nerve repair

## TB-500

*Thymosin Beta-4 Fragment — Cellular Mobility & Repair Factor*

The biologically active fragment of Thymosin Beta-4, present in every cell. Regulates actin — the structural protein essential for cell movement — enabling fibroblasts, keratinocytes, and endothelial cells to migrate rapidly to injury sites.

**Mechanisms:**

- Binds G-actin — enables rapid repair cell migration
- Recruits fibroblasts, keratinocytes, endothelial cells
- Promotes angiogenesis — new vessel formation
- Reduces NF-κB — modulates inflammatory cytokines
- Activates stem cells — regenerates muscle and connective tissue
- Anti-fibrotic: prevents excess scar tissue formation
- Improves extracellular matrix quality and flexibility
- Systemic distribution — active throughout the body

**Best For:**

- Connective tissue — tendons, ligaments, fascia
- Muscle repair and flexibility restoration
- Skin healing and fibrotic scar reduction
- Hair follicle regeneration
- Post-surgical recovery and rehab acceleration

## The GLOW Synergy Effect

The three peptides target different bottlenecks in regeneration, producing a combined effect greater than any single peptide alone.

| Peptide | Primary Contribution to GLOW |
|---|---|
| **GHK-Cu** | Collagen/elastin synthesis, fibroblast activation, Nrf2/antioxidant, gene reset |
| **BPC-157** | Angiogenesis (VEGFR2), inflammation resolution, gut/nerve repair, GH receptor upregulation |
| **TB-500** | Actin-driven cell migration, stem cell activation, fibrosis reduction, ECM remodeling |
| **Combined** | **Full-spectrum regeneration: structure + blood supply + cell recruitment + inflammation control** |

## Who Is GLOW Best Suited For?

- Skin aging — loss of firmness, fine lines, dullness
- Scar remodeling — acne, surgical, trauma, stretch marks
- Post-procedure recovery — microneedling, laser, chemical peels
- Musculoskeletal injuries — tendons, ligaments, joints
- Chronic low-grade inflammation affecting recovery and skin
- Hair thinning or reduced scalp density
- Athletes seeking faster recovery and connective tissue resilience
- Systemic inside-out approach to anti-aging and regeneration

## Pairs Well With

- Microneedling or laser — accelerates post-procedure collagen remodeling
- IV NAD+ — amplifies mitochondrial support for cellular repair
- Thymosin Alpha-1 — adds immune reconditioning to the regenerative stack
- Hormone optimization — improves the tissue environment for peptide response
- Infrared sauna — supports circulation and toxin clearance alongside repair

## Administration & Dosing Protocol

GLOW is administered as a compounded subcutaneous (SQ) injection providing systemic distribution for all three peptides. GHK-Cu topical is available as an adjunct only.

| Parameter | Protocol Details |
|---|---|
| **Route** | Subcutaneous injection (SQ) — abdomen, thigh, or upper arm |
| **GHK-Cu dose** | 2–5 mg per injection |
| **BPC-157 dose** | 250–500 mcg (0.25–0.5 mg) per injection |
| **TB-500 dose** | 5–10 mg loading; 2.5–5 mg maintenance per injection |
| **Loading phase** | 3–5x per week for 8–12 weeks — builds therapeutic tissue levels |
| **Maintenance** | 1–2x per week ongoing; or cycle 8 weeks on / 4–6 weeks off |
| **Onset** | Skin improvements often visible by weeks 4–6; tissue repair by weeks 6–10 |
| **Timing** | Morning preferred; avoid immediately before/after intense exercise |

## Safety & Considerations

- Well tolerated — all three peptides naturally occur in the human body
- Minor injection site reactions (redness, swelling) resolve quickly
- Mild fatigue or flushing possible in first 1–2 weeks as healing activity increases
- GHK-Cu: transient skin flushing at injection site is common and benign
- BPC-157: avoid with active malignancy; caution with anticoagulants
- TB-500: caution with active cancer history — discuss with provider before use
- Lab review recommended before starting; re-assess at 8–12 weeks
- All peptides prescribed through LegitScript-certified 503A compounding pharmacies

***GLOW works from the inside out — rebuilding the collagen matrix, resolving inflammation, and restoring the cellular signaling that drives youthful, resilient tissue. Results build over 8–12 weeks and continue to improve with consistent use.***

At Larrea Naturopathic Medicine, we prescribe peptides exclusively through CLIA-certified, FDA-registered 503A compounding pharmacies. Every batch undergoes independent third-party testing for purity, potency, and safety. Our pharmacies are LegitScript-certified and held to rigorous regulatory standards.