

What Are Peptides?

Harriman Precision Health

Physician-Supervised

Telemedicine Wellness

harrimanprecisionhealth.com

PATIENT EDUCATION GUIDE —

UNDERSTANDING PEPTIDE THERAPY

Understanding Peptides: The Basics

Peptides are short chains of amino acids — the same fundamental building blocks that make up all proteins in the human body. While proteins can contain hundreds or even thousands of amino acids, peptides are smaller molecules, typically ranging from 2 to 50 amino acids in length.¹ This smaller size is precisely what gives them their therapeutic value: peptides are able to penetrate cells, cross biological barriers, and act as highly targeted signaling molecules that communicate specific instructions to tissues, glands, and organs throughout the body.

Your body already produces thousands of its own peptides naturally. Insulin is a peptide. So are many of the hormones that regulate growth, metabolism, sleep, and immune function. The peptides used in physician-supervised therapy are either identical to or closely mimic peptides the body produces on its own — which is why they tend to have favorable safety profiles compared to many synthetic drugs that introduce entirely foreign molecules into the body.²

Where Do Therapeutic Peptides Come From?

Most therapeutic peptides are produced through chemical synthesis in pharmaceutical-grade laboratories. Scientists identify a naturally occurring peptide sequence in the human body that produces a desired biological effect — such as stimulating tissue repair, releasing growth hormone, or modulating immune function — and then synthesize that sequence using amino acids under controlled conditions.³ Some peptides are modified slightly from their natural counterparts to extend their half-life in the body, improve stability, or enhance their biological potency while preserving their core mechanism of action.

At Harriman Precision Health, all peptides are compounded by Empower Pharmacy, our licensed Houston-based pharmaceutical compounding partner. This means your medication is prepared fresh, under sterile conditions, using pharmaceutical-grade active pharmaceutical ingredients (APIs) sourced from FDA-registered facilities.

What Are Peptides Used For?

Peptide therapy has emerged as one of the most versatile tools in modern regenerative and wellness medicine. Depending on the specific peptide, therapeutic applications include tissue repair and injury recovery, growth hormone optimization and body composition, immune system modulation and resilience, skin and hair rejuvenation, metabolic health and insulin sensitivity, gut healing and inflammation reduction, cognitive function and neuroprotection, and longevity and healthy aging.⁴ The peptides offered through Harriman Precision Health are selected based on the quality and breadth of their supporting research, their safety profiles, and their alignment with your specific health and wellness goals.

Why Source Matters: Physician-Supervised vs. Black Market

The most important question a patient can ask about peptide therapy is not "what does this peptide do?" — it is "where did this peptide come from, and how was it made?" *The answer to that question determines whether the therapy is safe, legal, and effective.*

The demand for peptide therapy has grown dramatically over the past decade — and with that growth has come a parallel market of unregulated online suppliers selling peptides labeled "for research use only" or "for veterinary use only." These designations are legal shields that allow vendors to sell compounds intended for human use without complying with the pharmaceutical safety standards that protect patients.⁵

Compounding pharmacy peptides (what we use): Compounded by licensed pharmacists in sterile, regulated facilities. Manufactured using APIs sourced from FDA-registered suppliers. Subject to third-party testing for potency, sterility, and endotoxins before dispensing. Requires a valid physician prescription specific to you as an individual patient. Oversight by

state boards of pharmacy and federal regulations governs every step of preparation.⁶

Black market / "research use" peptides (what we do not use): No regulatory body verifies composition, purity, or dosing accuracy. No prescription required — meaning no physician has evaluated whether the therapy is appropriate for your health history. No sterility testing, no potency verification, no endotoxin screening. Frequently sourced from overseas manufacturers with unknown quality controls. No pharmacist oversight or clinical accountability if something goes wrong.^{5,7}

Studies examining unregulated peptide products have found significant discrepancies between labeled and actual content, contamination with biological byproducts, and incorrect concentrations that could lead to underdosing (no effect) or overdosing (adverse effects). The risks are not theoretical — they are documented.⁷

The Regulatory Landscape (2025–2026)

Peptide therapy exists in an actively evolving regulatory environment. In 2023, the FDA placed 17 peptides on its "Category 2" list — substances identified as presenting potential safety risks, which restricted their compounding by licensed pharmacies. This decision was controversial, as critics noted it was based on theoretical concerns rather than documented adverse events from pharmacy-compounded products, and it had the unintended effect of driving demand toward unregulated gray market sources.^{8,9}

As of 2025–2026, the regulatory landscape is shifting. Under new HHS leadership, the FDA convened advisory committee meetings to reevaluate the classification of several peptides — including BPC-157 — with the stated goal of restoring regulated access through licensed compounding pharmacies and reducing gray market activity.¹⁰ Harriman Precision Health monitors this landscape closely and operates exclusively through our licensed compounding pharmacy partner to ensure every therapy we prescribe is prepared to the highest available pharmaceutical standards.

Safety: What the Research Shows

The peptides used in Harriman Precision Health programs have been selected based on their research profiles and clinical safety data. Several

important general principles apply across our peptide offerings. Most therapeutic peptides are not hormones and do not suppress the body's own hormone production — they work by signaling the body to optimize its own existing systems.² They are not controlled substances. They are not anabolic steroids. Post-cycle therapy is not required for the majority of peptides we offer. Side effects across the peptide classes we use are generally mild and transient — most commonly brief injection site reactions — with no significant organ toxicity documented at therapeutic doses in the available research.⁴

It is important to understand that most peptide research to date has been conducted in animal (preclinical) models, with large-scale randomized human clinical trials still ongoing for many compounds. This is reflected honestly in each of the individual patient education guides for the peptides we offer. At Harriman Precision Health, our physician oversight ensures that each therapy is appropriate for your individual health history, existing conditions, and concurrent medications before any protocol is initiated.

How Peptide Therapy Is Administered

Most of the peptides we offer are administered via subcutaneous (under the skin) self-injection, using small insulin-style syringes that most patients find comfortable and straightforward after a brief orientation. Subcutaneous injections are placed in the abdominal fat pad or other designated sites and are typically nearly painless due to the short needle length and small injection volume. Some peptides may also be available in oral capsule, topical, or nasal spray form depending on the specific compound and indication. Your care team provides complete reconstitution instructions, injection technique guidance, and a personalized administration schedule at onboarding.

What to Expect: The Realistic Picture

Peptide therapy is not a quick fix. These compounds work by supporting, optimizing, and amplifying your body's own biological processes — which means results develop gradually and cumulatively over the course of a treatment cycle, typically eight to twelve weeks. Patients who set realistic expectations, complete their full cycles, and support their therapy with adequate nutrition, sleep, and lifestyle habits consistently achieve the best outcomes. The individual patient education guides for each peptide we

offer provide detailed, honest timelines for what to expect week by week.

Important Notice: This document is for general educational purposes only and does not constitute medical advice. All therapies at Harriman Precision Health are physician-supervised and protocols are individualized to your health history and goals. All peptides are off-label compounded therapies. This material should not be used for self-diagnosis or self-treatment. Questions? Contact us through your patient portal.

References

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This document reflects the regulatory landscape as of April 2026. The FDA's classification of specific peptides is subject to change. Harriman Precision Health monitors regulatory developments and adjusts protocols accordingly to ensure all therapies meet current legal and safety standards. All therapies are physician-supervised and individualized.

