

Hormone & Peptide Therapies

What are hormone and peptide therapies?

Hormone and peptide therapies use peptides and hormones for various health benefits, including rejuvenation, repair, metabolism, growth, longevity, increased vitality, and cognitive enhancement.

Hormones and Peptides

- Peptides are chains of amino acids (AAs), ranging from two to 100 AAs that can function as hormones, neuromodulators, proteins, and therapeutics. A polypeptide is a combination of peptides.
- Peptides can be obtained through prescriptions, where Lippy Polysaccharides (LPs) are removed to improve efficacy and lower immune response, or from the black or gray markets, but it is essential to exercise caution ("Caveat Emptor") when visiting the specious markets.
- Hormones are chemical messengers produced by the endocrine system that regulate several body processes and functions.
- Types: Estrogen, testosterone, growth hormone, insulin, glucagon, ghrelin, leptin, serotonin, oxytocin, melatonin, thyroid hormone, and cortisol.

Rejuvenation and Repair

- BPC-157
 - This peptide, originally sourced from the gut, is used for wound healing due to the similarity in cell turnover between the gut and wound healing processes.
 - It promotes new blood vessel formation, increases fibroblasts, and enhances growth hormone uptake.
 - Oral form is better for gut tissues.
 - The injectable form works systematically, so injecting at the site of the injury is unnecessary.
 - While studies on BPC-157 are mostly from animal studies, it has been proven safe

in humans³.

- It is best to obtain BPC 157 only from FDA-approved compounding pharmacies.
- The recommended dosage is 300–400 micrograms/week.
- An alternative to BPC-157 is Pentadecane Arginate (PDA) at a dosage of 500 mcg/day for five 5 days on/two days off.
- TB 500, Thymus, and Beta 4
 - These peptides increase the rate of wound healing and stem cell proliferation and are obtained from children due to their fast-healing capabilities.

Metabolism and Growth

- Growth Hormone (GH)
 - GH decreases with age (15% per decade after 30) and can accelerate the growth of all tissues, including cancer cells.
 - Types of GH include several FDA-approved options that exist via human studies, including Sermorelin, Tesamorelin, and CJC-12959.
 - Tesamorelin, Sermorelin, and CJC 1295 increase the rate of wound healing and stem cell proliferation. They can be taken at bedtime and can augment GH release from the pituitary.
 - Tesamorelin has also been shown to decrease visceral fat.
- GLP-1
 - Stimulates the release of insulin from the pancreas, lowering blood sugar levels.
 - Suppresses glucagon secretion, further reducing blood sugar.
 - Slows down gastric emptying, promoting satiety.
 - Reduces appetite and food intake. WHY THEY ARE POPULAR WEIGHT LOSS DRUGS.
 - Micro dosages of GLP-1 can decrease muscle mass loss.
- Glycine
 - For liver detoxification.
- Ghrelin
 - Stimulates hunger.
 - Types: Ipamorelin, Hexarelin, GHRP-3, and MK-677 (the oral version of GHRP-3).
- NAD (nicotinamide adenine dinucleotide) – enhances metabolism, cognition, and skin

health.

- NR (nicotinamide riboside) – decreases cholesterol and improves liver health.
- NMN (nicotinamide mononucleotide) – enhances metabolism, insulin sensitivity, eye function, and mitochondrial health.

Longevity

- Epithalon
 - This peptide helps in secreting melatonin from the pineal gland and can reduce inflammation to extend lifespan, according to animal studies. They also have the potential to restore the body and brain during sleep and accelerate healing.
- Methylated B vitamins like B6, folate, and B12, along with trimethyl glycine (TG)
 - Can lower homocysteine and decrease the risk of cardiovascular issues.
 - TG – A methyl donor that provides methyl groups that are essential for various bodily functions.

Vitality, Mood, and Libido

- Melatonin and PT-141 (Vyleesi)
 - These peptides can improve circadian rhythms and increase sex drive in females. However, PT-141 can cause orange skin.
 - PT-141 may increase sex drive in females.
- Pinealon – may enhance sleep.
- Kisspeptin
 - This peptide causes the pituitary to release luteinizing hormone and follicle-stimulating hormone, which activates puberty.
 - Increases estrogen and gonadotropin-releasing hormone (GnRH).