Peptide Perspectives™

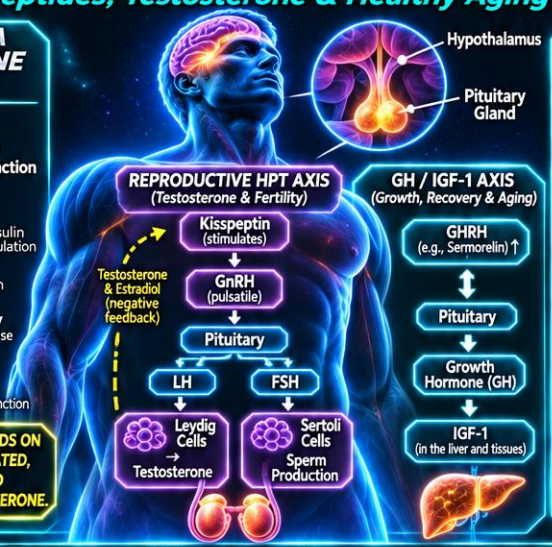
THE FUTURE OF MEN'S HORMONAL HEALTH

Peptides, Testosterone & Healthy Aging

MORE THAN A TESTOSTERONE NUMBER

- **Fertility** — Sperm production and reproductive health
- **Libido & Sexual Function** — Desire, performance and satisfaction
- **Metabolic Health** — Body composition, insulin sensitivity and fat regulation
- **Muscle & Bone** — Muscle mass, strength and bone density
- **Sleep & Recovery** — Sleep quality, GH release and overall recovery
- **Well-Being** — Mood, motivation, energy and cognitive function

TRUE DIAGNOSIS DEPENDS ON SYMPTOMS PLUS REPEATED, ACCURATELY MEASURED LOW MORNING TESTOSTERONE.



THE TWO DISTINCT PATHWAYS

REPRODUCTIVE HPT AXIS (Testosterone & Fertility)

- Hypothalamus → GnRH
- Pituitary → LH & FSH
- Testes → Testosterone & sperm production

GH AXIS (Growth, Recovery & Body Composition)

- GHRH (e.g., Sermorelin)
- Growth Hormone (GH)
- IGF-1 (tissue effects)

EXTERNAL TESTOSTERONE CAN SUPPRESS LH & FSH, OFTEN REDUCING SPERM PRODUCTION AND FERTILITY.

8 COMPOUNDS & THEIR EVIDENCE

hCG (Human Chorionic Gonadotropin)

- FDA-labeled for certain male hypogonadotropic conditions (e.g., pituitary/hypothalamic causes).
- Clinically used to stimulate testosterone production and maintain fertility.

FSH (Follitropin)

- Established treatment for selected infertility (e.g., low sperm count/impaired spermatogenesis).
- Often used with hCG to support both testosterone and sperm production.

Gonadorelin (GnRH)

- Pulsatile GnRH therapy used in specialist clinical settings (e.g., secondary hypogonadism, fertility).
- Human clinical use, but not a general anti-aging or performance treatment.

Kisspeptin-10

- Stimulates natural GnRH release upstream.
- Small human trials show hormone increases, but it remains investigational for male hormone therapy.

Leuprolide (GnRH Agonist)

- FDA-approved for specific indications (e.g., prostate cancer, endometriosis, CPP).
- With sustained use, it **SUPPRESSES LH/FSH and reduces testosterone** (not used to raise testosterone).

Sermorelin (GHRH)

- Stimulates growth hormone (GH) release (GH axis).
- Not a proven testosterone treatment.
- A historic, FDA-approved product (for GH deficiency) that has been discontinued in the U.S.

Ipamorelin (GH Secretagogue)

- Stimulates GH release (without significantly increasing prolactin or cortisol).
- Research and clinical use for GH-related goals (e.g., recovery, body composition), but no approved use for male hormone optimization or infertility.

PT-141 (Bremelanotide)

- FDA-approved only for sexual desire (HSDD) in selected women.
- May influence sexual function and arousal in men, but it is **NOT a testosterone-boosting or fertility treatement.**

WHAT GOOD STUDIES MEASURE

- **Testosterone** (repeated morning levels)
- **LH & FSH** (pituitary signaling)
- **Semen analysis** (fertility)
- **Symptoms & sexual function** (libido, performance)
- **Bone & metabolic health** (BMD, body comp, insulin, lipids)
- **Cardiovascular health** (blood pressure, lipids, CV risk)
- **Safety** (hormones, labs and potential side effects)

NEXT FRONTIER

- **Precision Signaling** (tailored to the underlying cause)
- **Fertility-Preserving Care** (maintain or restore sperm production)
- **Address Reversible Factors** (sleep, obesity, stress, metabolic health)
- **Keep the Pathways Distinct** (GH axis ≠ testosterone axis; (different goals and risks)
- **Better Clinical Trials** (larger, longer, well-designed studies on safety and outcomes)

MORE TESTOSTERONE IS NOT ALWAYS BETTER.

REPRODUCTIVE HORMONES, GROWTH HORMONE AND SEXUAL DESIRE ARE DISTINCT PATHWAYS.

Educational research overview | November 2026 | Not medical advice.