Demystifying Peptides

CELLULAR SCIENCE AND FUNCTIONAL HEALTH

Dr. Sarah P. Wilde
Wilde Integration
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WHAT IS A PEPTIDE?

Peptides are naturally occurring analogs of **short chains of amino acids in the body <50 AA in length**. If a chain is longer than fifty combined amino acids, it is considered a protein. (*Think of a necklace: the beads are amino acids, a short length of chained beads is a peptide, the entirity of a completed necklace is a protein)*

Peptides communicate and regulate almost all processes in the body - this is formally known as **cellular bio-regulation**. They are **signaling molecules** that indirectly create and support cellular activity with a cascade of secondary messengers. Peptides **have pleiotropic effects** making them very synergistic with most therapeutic protocols for metabolism, tissue repair, sleep, brain function, skin health and more

WHERE ARE PEPTIDES NATURALLY FOUND?

Peptides are found in human and animal tissues, plants, microorganisms like bacteria and fungi, and in our food sources including:

- Meat
- Fish
- Dairy
- Beans
- Grains

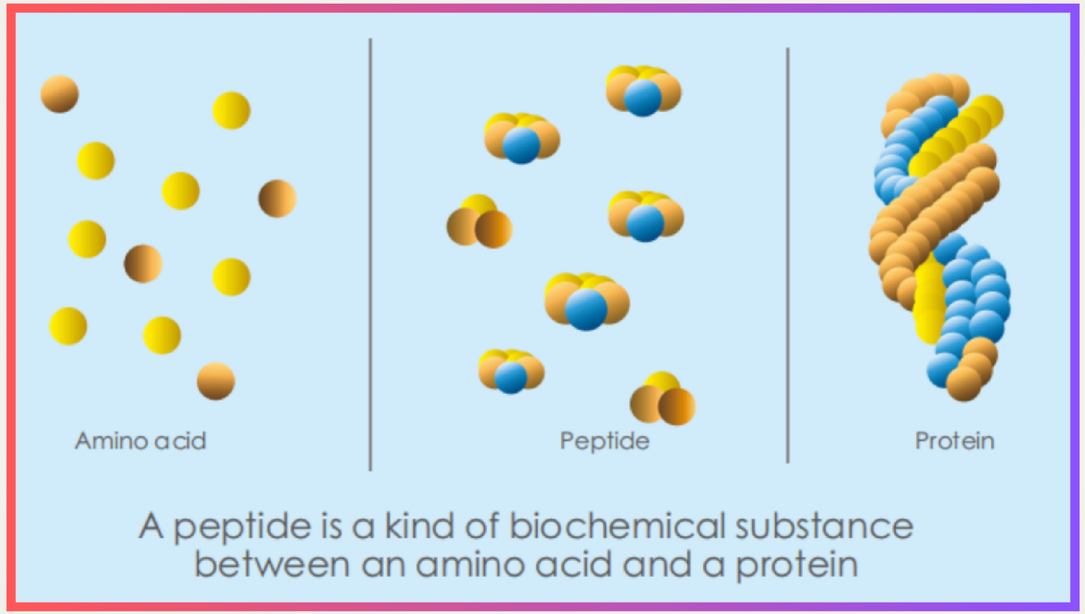
So, in a broad sense, **peptides are a normal and ubiquitous part of biology — not something inherently synthetic or pharmaceutical.**

If you already use collagen products, or sleep and mood supplements like tryptophan, GABA or L-theanine, you are already taking peptide compounds!

MASTER REGULATORS

Peptides link to receptor proteins in specific tissues to initiate a targeted response. This is different than hormones that have more broad reaching effects.

Some peptides naturally occur in the body’s tissues, while others are laboratory made and therefore synthetic, designed to mimic or influence cell signaling



PEPTIDES - SAFE AND EFFECTIVE

- Being small and water-soluble, they **naturally degrade** in the body and do not accumulate in the tissues, liver, or kidneys
- Some popular peptides have no known toxic level, meaning researchers cannot elicit toxicity effects, no matter how high the dosage
- Shown to be **extremely safe with proper administration**
- Increasing numbers of peptides are becoming clinically available
- FDA has recently approved the following peptides for compounding: GLP 2, BPC 157, KPV, TB 500, MOTS-C, DSIP, Semax, Epithalon

WHO SHOULD NOT USE PEPTIDES

If you have a...

- **recent diagnosis of cancer**
- **hormone sensitive endocrine condition**
- are currently **pregnant** or **breastfeeding**
- are undergoing treatment for significant **liver, kidney, or heart disease**

... *peptides are contraindicated without medical supervision*.

If you have a **history of cancer**, be aware that certain peptides *do contain active factors that may increase your risk of recurrence.* **Request baseline labs and continuous monitoring** while beginning and maintaining a therapeutic peptide protocol

IF YOU HAVE MEDICAL CONCERNS...

Your metabolic health can change whether a particular peptide is appropriate and how it is metabolized.

Growth hormone stimulating secretagogues, such as Sermorelin, CJC-1295, Ipamorelin, or Tesamorelin, should not be used with active malignancy, elevated IGF-1, uncontrolled diabetes or glucose intolerance, pituitary disorders, or any condition that is aggravated by fluid retention.

If you have had a recent diagnosis of cancer, angiogenic peptides such as BPC 157, TB 500, GHK Cu, and Melanotan should not be used as they promote growth of new blood vessels that feed a tumor or lesion. Additionally, avoid telomerase activators like Epitalon as it promotes cellular immortality - and cancer cells need to die

TOP REASONS TO USE PEPTIDES

peptides in **bold are further outlined in the **Self Directed Guide: Safe and Effective Peptide Administration***

Healing + Repair
Cellular Immunity

- ARA 290
- **BPC 157***
- Cardiogen
- Cartalax
- CJC 1295
- GHK Cu
- **KPV***
- LL37
- **TB 500***
- **Thymosin Alpha 1***
- Thymulin

Performance
Optimization + Recovery

- 5 Amino 1MQ
- AOD 9604
- Follistatin
- Ipamorelin
- **MOTS C***
- **NAD***
- PEG MGF
- **SS 31***
- **Sermorelin***
- Tesamorelin
- Vialox

Metabolism
Body Composition

- AOD 9604
- Cagrilintide
- **MOTS C***
- Retatrutide
- Semaglutide
- SLU PP 332
- Tesofensine
- Tirzepatide

Function
Neurocognitive Health

- Cerebrolysin
- Dihexa
- **DSIP***
- **Epithalon***
- Humanin
- Pinealon
- P21
- **Selank***
- **Semax***
- Tesofensine
- VIP

Longevity
Aesthetics + Healthy Aging

- FOX04 DRI
- **GHK Cu***
- **Kisspeptin***
- **Matrixyl***
- Melanotan
- **Oxytocin***
- PT 141
- SLU PP 332
- SNAP 8
- Vilon

MECHANISMS OF USE

Peptides often have variable uses and those listed are categorically placed due to their primary function or common application.

Some overlap takes place and certain peptides are interchangeable.

For example, AOD 9604 is primarily used as a growth hormone for muscle development - but it also targets fat metabolism. *Therefore, it could be used for both “performance” and to improve “metabolism” or body composition.*

Another example of crossover is CJC 1295 - it's commonly promoted for recovery, sleep, and healthy aging *but when combined Ipamorelin, it is specifically used for lean muscle mass development or growth*

RESEARCH AND DEVELOPMENT

Many peptides are labeled for “research and scientific uses only”.

They are **currently being studied in the US for wide application in relationship to population safety**, and are undergoing development for FDA-approved protocols to educate providers with known specifications for administration route, dosage, frequency, effectiveness, and duration of use.

Peptides are becoming increasingly available and marketable in the US.

EU countries with progressive medical advancements have performed extensive research and have made many peptide medicines available for use

SAFETY FIRST

To know if a peptide supplier is legitimate, check for **batch-specific Certificates of Analysis (COAs) from independent third-party labs.**

Verify that batch numbers match the lot numbers on the physical vials, ensure transparent business contact details, and confirm whether they operate as a regulated compounding pharmacy or a research-grade vendor.

The safest and medically legal way to obtain human-use peptides is through a licensed physician via a specialized telehealth platform or an integrative medicine clinic, fulfilled by a regulated 503A or 503B compounding pharmacy

GETTING STARTED

Be aware, **peptides are most effective when your body has a healthy internal environment** or “terrain” that supports proper absorption, signaling, and cellular function.

- **NUTRITION:** *0.5-1.5g protein per lb of body weight + 20-25g fiber daily*
- **DAILY MOVEMENT:** *make it a habit*
- **ADEQUATE HYDRATION:** *minimum 64 oz spring water daily*
- **SLEEP:** *minimum 7 hours each night*
- **GO OUTSIDE:** *we are human beings and we are inextricably tied to natures’ rhythms. Disconnect from screens, reduce electromagnetic frequency exposure, and reconnect to your innate biology on our beautiful planet* ♡

NEXT STEPS

Once you have taken inventory of your daily habits, nutrition, hydration and sleep patterns, ***you have options as you invest in your peptide journey***:

- **PHYSICIAN-LED PHARMACEUTICAL-GRADE PEPTIDES:**
  Enroll with a local physician's office or med spa to order on your behalf and to manage your care *(best for FDA approved therapies like GLP)*
- **SELF GUIDED TREATMENT:**
  Download the *'Self Directed Guide: Safe and Effective Peptide Administration'* to learn more about at-home protocols
- **START WITH A PERSONALIZED CONSULTATION:**
  Review your medical history, current status and health concerns with Dr. Wilde to receive concise guidance on your next steps