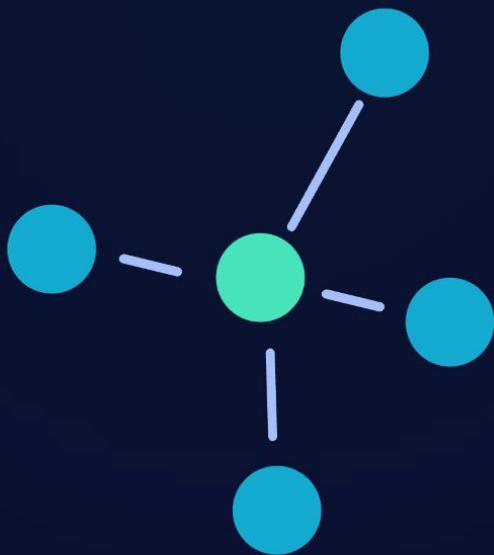


Welcome to

**BRAINIQ**<sup>®</sup>  
*Health Sciences*

# Regen Guide

Enhancing Body & Mind  
with Cutting-Edge Science



**BRAINIQ**<sup>®</sup>  
*Health Sciences*

# Introduction

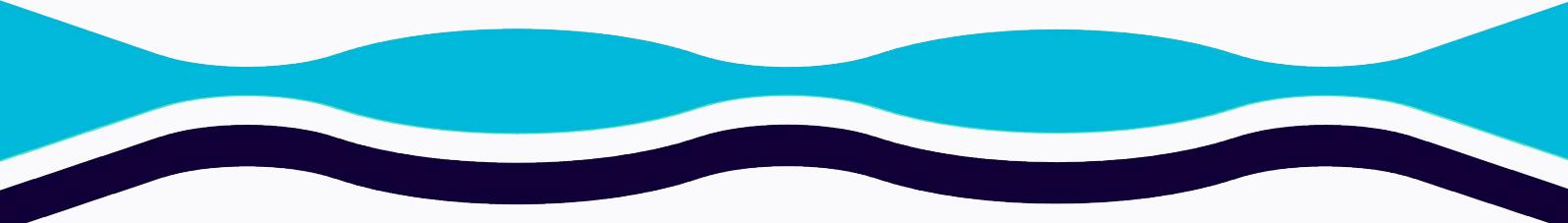
First of all, welcome to BrainIQ Health Sciences **“Guide to Peptides: Peptides: Enhancing Body & Mind with Cutting-Edge Science.”**

In recent years, there’s been a rising interest in peptide therapy due to their ability to safely - and effectively - improve physical and mental performance.

Whether you're looking to boost your energy, improve cognitive function, or accelerate muscle growth and recovery, this guide will provide you with the essential knowledge you need to make informed decisions about peptide therapy.

While many more peptides are available on the market today, the peptides in this ebook are all available at BrainIQ Health Sciences. You’re more than welcome to book a consultation with our nurse practitioner to learn more.

[\*\*Book a Free Consultation\*\*](#)



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**SECTION 01**

# **Overview of Peptides**

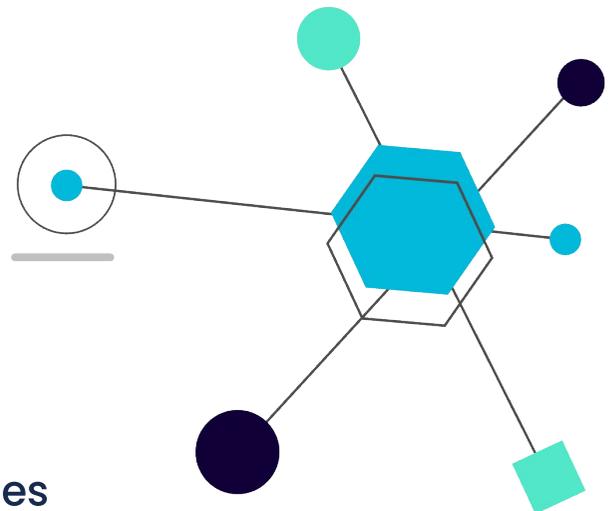
# Understanding Peptides

## What Are Peptides?

Scientifically speaking, peptides are short chains of amino acids which are linked by peptide bonds. Here's the important part. These short chains can act as 'signaling molecules' or 'chemical messengers' for the body.

As a peptide flows through the bloodstream, the molecules bind with cell receptors - which then kicks a cascade of biochemical reactions within the cell. In this way, peptides can help the body guide and regulate various functions like metabolism, muscle repair, and even cognitive function.

Different peptides can also influence factors like sleep quality, skin health, energy, and libido. In this ebook, we'll examine a few of the hand-selected peptides that are offered at BrainIQ Health Sciences



# How do Peptides Work?

Peptides exert their effects by binding to specific receptors on the surface of cells. This interaction triggers a cascade of biochemical events that influence cellular behavior.

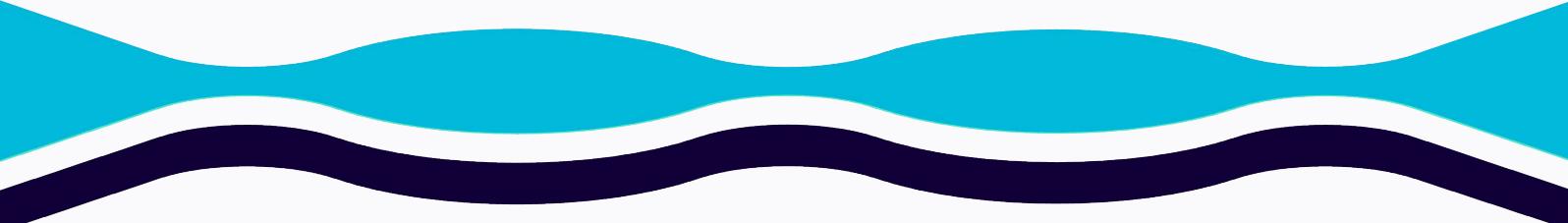
- **Biological Mechanisms:** Peptides can mimic natural hormones and neurotransmitters, which can help modulate the body's various physiological processes.
- **Interaction with Receptors:** Peptide-receptor binding is highly specific, allowing for targeted therapeutic effects with minimal side effects.

Peptide therapy harnesses the power of these molecules to promote health and wellness. Here are some of the key benefits:

- **General Health Improvements:** Enhanced energy levels, better sleep, and improved immune function.
- **Targeted Health Benefits:** Muscle growth, fat loss, cognitive enhancement, digestive health, mood regulation, and anti-aging effects.

## SECTION 02

# Peptide Therapies



# Peptide #1: NAD+

## For Anti-Aging

**NAD+** (Nicotinamide Adenine Dinucleotide) is a coenzyme that's naturally in the body and found in all living cells. As we age, NAD+ production declines. The peptide plays a variety of key roles on a cellular level.

### What is NAD+' Role in the Body?

First, NAD+ is essential for the function of mitochondria (which are often referred to as the 'powerhouses of the cell'). In other words, it helps our cells turn food into energy.

### Health Benefits

NAD+ offers a wide range of other health benefits due to its central role in cellular energy production and metabolism.

- **Cellular Energy Production:** NAD+ is vital for converting food into ATP (adenosine triphosphate), which you can think as a cell's 'energy currency'
- **Anti-Aging Effects:** NAD+ levels decline with age, which contributes to the aging process. This is why supplementing NAD+ can help protect our cells
- **DNA Repair:** Cell's DNA can sustain damage over time due to aging and environmental factors. NAD+ activates 2 key enzymes, sirtuins and PARP's, which play a key role in the cell's ability to repair DNA.

# Peptide #1: NAD+

## For Anti-Aging

### Clinical Applications

While researchers are still yet to study **NAD+** on a large-scale, mounting evidence ([NLH](#)) in the past 10 years has been overwhelmingly positive in restoring vitality

### Case Studies and Testimonials

It's worth noting there's little debate amongst researchers in regards to NAD+'s ability to deliver the following patient outcomes:



**Increased Energy:** Most patients notice a significant boost in their energy levels, allowing them to be more active & engaged in their daily activities.



**Better Mental Clarity:** Patients often report enhanced cognitive function, including sharper focus, better memory, and improved mental clarity.



**Enhanced Well-being:** Overall well-being tends to improve, with patients feeling more balanced, less fatigued, and more resilient against stress.



**Improved Physical Health:** Some individuals experience better physical performance, faster recovery from workouts, and reduced symptoms of chronic conditions.

# Peptide #2: BPC-157

## For Healing & Recovery

BPC-157 is a synthetic peptide derived from a naturally occurring protein found in the stomach (Body Protection Compound 'BPC'). It has powerful regenerative properties and can significantly enhance the body's natural healing processes.

### How Does it Work?

BPC-157 works by promoting the formation of new blood vessels (angiogenesis) and accelerating the healing of various tissues. This includes muscles, tendons, and the digestive tract. It interacts with growth factors and other peptides to enhance tissue repair and reduce inflammation.



**Tissue Repair and Healing:** BPC-157 accelerates recovery by promoting angiogenesis (formation of new blood vessels) and collagen production.



**Gut Health:** It's shown to protect and heal the lining of the gastrointestinal tract, making it beneficial for conditions like inflammatory bowel disease.



**Anti-Inflammatory Properties:** BPC-157 reduces inflammation, which can help in the treatment of various chronic conditions.

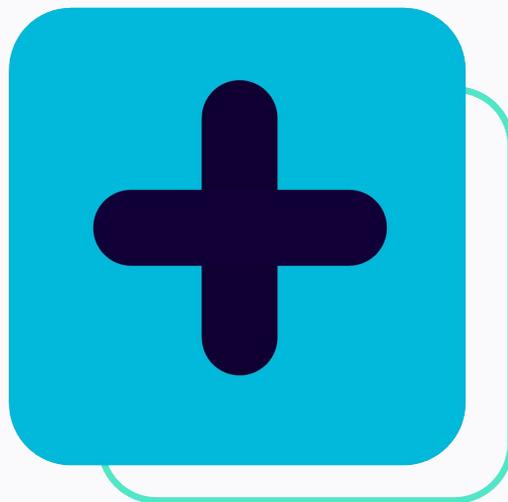
# Peptide #2: BPC-157

## For Healing & Recovery

### Clinical Applications

BPC-157's healing properties make it valuable for a variety of medical applications:

- 1 Sports Injuries:** Athletes use BPC-157 to speed up recovery from injuries and enhance performance.
- 2 Digestive Disorders:** It has shown promise in treating conditions like Crohn's disease and ulcerative colitis.
- 3 Success Stories:** Anecdotally, the majority of our patients report significant improvements in their recovery times and overall health after using BPC-157.



# Peptide #3: Sermorelin

## For Performance & Vitality

**Sermorelin** is a peptide that stimulates the secretion of growth hormone (GH) from the pituitary gland. This can lead to a range of health benefits, especially as age and GH levels gradually decline.

### How Does it Work?

The peptide works by mimicking the body's natural growth hormone-releasing hormone (GHRH). When administered, it signals the pituitary gland to produce and release additional growth hormone into the bloodstream, **which can lead to:**

-  **Improved Muscle Mass:** Sermorelin encourages the growth and repair of muscle tissue by stimulating the release of GH, which plays a crucial role in muscle development.
-  **Enhanced Fat Metabolism:** It helps reduce body fat and improve body composition by increasing GH levels, which enhance the body's ability to metabolize fat.
-  **Better Sleep Quality:** Sermorelin supports deeper, more restorative sleep by regulating GH secretion, which is closely linked to sleep cycles.
-  **Increased Energy Levels:** It boosts overall vitality and energy by enhancing GH function, which is essential for energy metabolism.
-  **Improved Cognitive Function:** Sermorelin supports brain health, improving memory and mental clarity by regulating GH, which has neuroprotective effects.

# Peptide #3: Sermorelin

## For Performance & Vitality

### Clinical Applications

Sermorelin's ability to increase GH makes it a valuable medical solution for addressing a variety of symptoms:

- 1 Muscle Loss:** Sermorelin helps increase muscle mass and strength by promoting growth hormone production.
- 2 Weight Gain:** It supports fat metabolism and aids in weight management through enhanced GH levels.
- 3 Poor Sleep Quality:** Sermorelin improves sleep patterns and promotes deeper, more restful sleep by regulating GH secretion.
- 4 Low Energy Levels:** It boosts overall energy and vitality by enhancing the body's natural GH production.
- 5 Aging Skin:** Sermorelin enhances skin health by promoting collagen production for a more youthful appearance.
- 6 Weak Immune System:** It strengthens the immune response, helping the body fight infections more effectively.
- 7 Cognitive Decline:** Sermorelin supports brain function, improving memory and mental clarity through regulated GH levels.
- 8 Success Stories:** Anecdotally, many patients report significant improvements in muscle mass, energy levels, sleep quality, and overall health after using Sermorelin.

# Peptide #4: IGF-1 & LR3 Blend

## For Muscle Growth & Strength

As we've reviewed, peptides like BPC-157 and Sermorelin can be incredibly effective when used individually. Peptides can also be blended together for more comprehensive health improvements.

The **IGF-1** (Insulin-like Growth Factor 1) and **LR3** (Long Arg3 IGF-1) **blend** is a potent combination that's shown to facilitate the increase of muscle mass and strength.

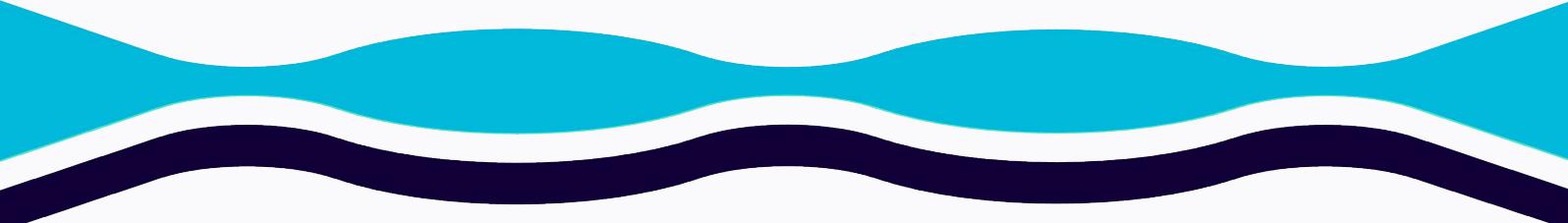
### How Does it Work?

In the body, **IGF-1** is primarily produced in the liver in response to increased levels of growth hormone. As IGF-1 flows through the bloodstream, it then exerts its effects on cell tissue in muscle and bones. Specifically, it helps support cell growth, protein synthesis, and tissue repair – **which leads to:**

 **Muscle Hypertrophy:** Increases muscle size by enhancing protein synthesis and cellular growth.

 **Strength Gains:** Improves strength through muscle fiber enlargement and increased neural drive.

 **Enhanced Recovery:** Accelerates recovery by reducing muscle damage and inflammation.



# Peptide #4: IGF-1 & LR3 Blend

## For Muscle Growth & Strength

### Clinical Applications

The IGF-1 and LR3 blend's ability to promote growth and repair makes it valuable for addressing a variety of health concerns:

- 1 Muscle Loss:** IGF-1 and LR3 help increase muscle mass and strength by enhancing protein synthesis and cellular growth.
- 2 Weight Gain:** The blend supports fat metabolism and aids in weight management by improving the body's ability to metabolize fat.
- 3 Bone Density Issues:** IGF-1 and LR3 improve bone health by promoting bone growth and density.
- 4 Injury Recovery:** The blend accelerates recovery from injuries by enhancing tissue repair and reducing muscle damage and inflammation.
- 5 Chronic Fatigue:** It boosts overall energy levels, helping to alleviate symptoms of chronic fatigue by supporting metabolic processes.
- 6 Aging-Related Decline:** The blend mitigates various aging-related issues by promoting overall tissue health and vitality.



# Peptide #5: Semax & Selank Blend

## For Cognitive Enhancement

While the IGF-1 & LR3 blend is primarily intended for muscle mass & strength, **the Semax and Selank** blend works to enhance cognitive function, reduce anxiety, and regulate mood.

### How Does it Work?

- **Semax** boosts levels of '*brain-derived neurotrophic factor*' (BDNF). BDNF then helps regulate dopamine and serotonin levels, which supports mood, cognitive function, and blood flow in the brain.
- **Semax** mimics the effects of the '*adrenocorticotrophic hormone*' (ACTH), which also regulates dopamine and serotonin. In addition, it modulates norepinephrine levels to help manage stress.

Combined, these peptides can:

- 💡 **Improve Cognitive Function:** Enhances memory, focus, and mental clarity by increasing BDNF and balancing neurotransmitters.
- 📉 **Reduce Anxiety:** Lowers stress levels by modulating norepinephrine, dopamine, and serotonin.
- 👍 **Stabilize Mood:** Improves overall mood by balancing key brain chemicals and supporting neurogenesis.

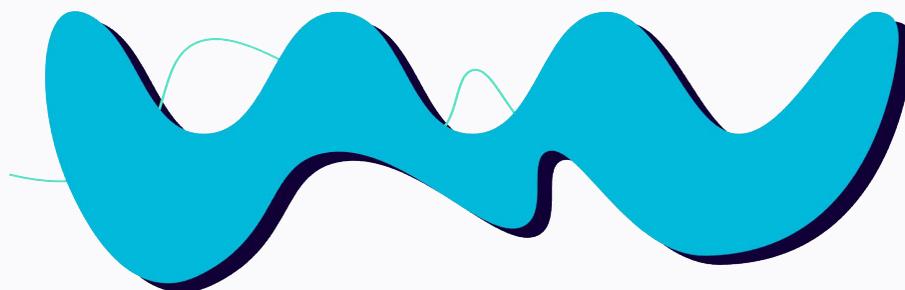
# Peptide #5: Semax & Selank Blend

## For Cognitive Enhancement

### Clinical Applications

The IGF-1 and LR3 blend's ability to promote growth and repair makes it valuable for addressing a variety of health concerns:

- ① **Cognitive Decline:** Supports brain health by enhancing neuroprotection and cognitive function, improving memory, focus, and mental clarity.
- ② **Anxiety Disorders:** Helps reduce anxiety and promote a sense of calm by modulating neurotransmitter levels.
- ③ **Depression:** Can improve mood and alleviate symptoms of depression by balancing brain chemicals.
- ④ **Chronic Stress:** Aids in managing stress by reducing anxiety and promoting overall mental well-being.
- ⑤ **Memory Lapses:** Enhances learning and mental capabilities by improving cognitive function and supporting overall brain health.



# Peptide #6: AOD-9604, MOTs-c & Tesamorelin For Metabolic Health + Fat Loss

For those seeking to enhance their metabolic health, boost energy levels, and promote fat loss, certain peptide blends can help accelerate results. The **AOD-9604, MOTs-c, and Tesamorelin** blend is formulated for this very purpose.

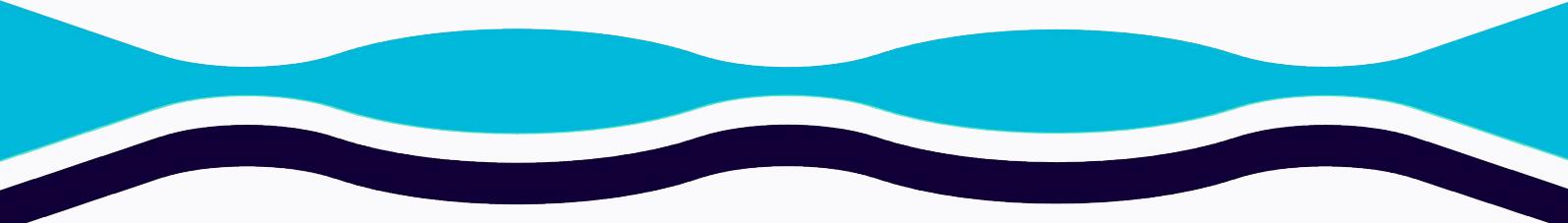
## How Does it Work?

- **AOD-9604:** This peptide fragment of human growth hormone helps reduce body fat by stimulating lipolysis (the breakdown of fats) and inhibiting lipogenesis (the formation of fat).
- **MOTs-c:** A mitochondrial-derived peptide which enhances metabolic function and increases energy levels through improved glucose regulation and fat oxidation.
- **Tesamorelin:** A growth hormone-releasing hormone (GHRH) analog that stimulates the pituitary gland to produce growth hormone, which in turn promotes fat loss and muscle growth.

 **Promote Fat Loss:** AOD-9604 stimulates fat breakdown and prevents new fat formation, while MOTs-c enhances fat oxidation.

 **Increase Energy Levels:** MOTs-c boosts metabolic function and energy production, reducing fatigue.

 **Enhance Metabolic Health:** Tesamorelin improves glucose regulation and supports overall metabolic health.



# Peptide #6: AOD-9604, MOTs-c & Tesamorelin For Metabolic Health + Fat Loss

## Clinical Applications

The AOD-9604, MOTs-c, and Tesamorelin blend's ability to promote fat loss, enhance energy, and improve metabolic health makes it valuable for addressing a variety of health concerns:

- 1 Weight Management:** Supports fat loss and helps prevent weight gain by stimulating fat breakdown and oxidation.
- 2 Low Energy Levels:** Increases energy and reduces fatigue by enhancing metabolic function and glucose regulation.
- 3 Metabolic Disorders:** Improves overall metabolic health, aiding in conditions such as insulin resistance and obesity.
- 4 Muscle Growth and Repair:** Tesamorelin promotes muscle growth and recovery by increasing growth hormone levels.



# Peptide #7: Pinealon, PE-22-28 & Selank Blend For Stress Management + Cognitive Enhancement

For those seeking cognitive enhancement and stress reduction, the **Pinealon and Selank** blend is an effective combination that targets brain health and emotional well-being.

## How Does it Work?

- **Selank:** As we reviewed earlier, Selank acts on the central nervous system and modulates neurotransmitters like serotonin, dopamine, and norepinephrine. This reduces anxiety, enhances mood, and improves stress management.
- **Pinealon:** This peptide mimics three naturally occurring peptides produced in the pineal gland that support cognitive function. Pinealon supports brain health by protecting neurons (nerve cells) and synapses (connections between neurons), which can boost overall cognitive function.
- **PE-22-28:** Derived from '**activity-dependent neuroprotective protein**' (ADNP), this peptide enhances neuroprotection and promotes cognitive function. It helps maintain neuronal health and supports learning & memory.

 **Enhance Cognitive Function:** Pinealon and PE-22-28 protect neurons and synapses, improving memory, learning, and overall cognitive abilities.

 **Reduce Anxiety:** Selank modulates key neurotransmitters, helping to reduce anxiety and promote a sense of calm.

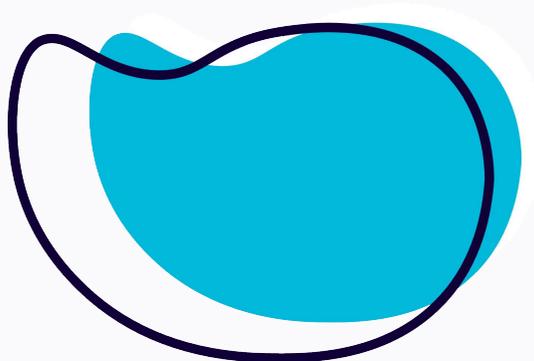
 **Improve Mood:** By balancing brain chemicals, Selank helps stabilize and improve overall mood.

# Peptide #7: Pinealon, PE-22-28 & Selank Blend For Stress Management + Cognitive Enhancement

## Clinical Applications

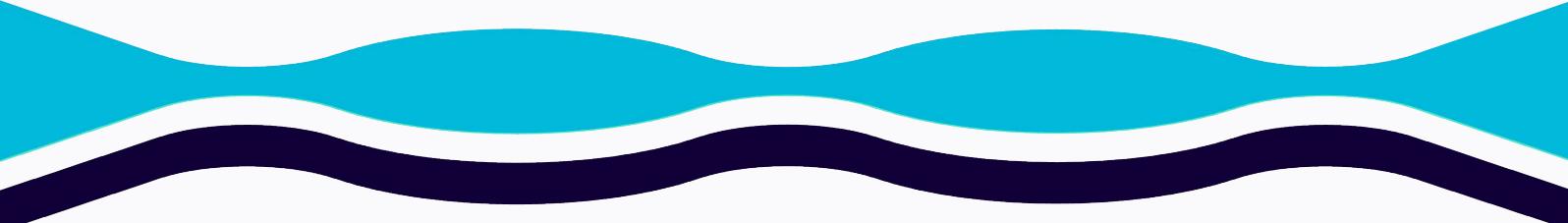
The Pinealon, Selank, and PE-22-28 blend's ability to enhance cognitive function, reduce anxiety, and improve mood makes it valuable for addressing a variety of health concerns:

- 1 **Cognitive Decline:** Supports brain health by protecting neurons and enhancing cognitive function, improving memory and learning.
- 2 **Anxiety Disorders:** Helps reduce anxiety and promote a sense of calm by modulating neurotransmitter levels.
- 3 **Stress Management:** Aids in managing stress by reducing anxiety and promoting overall mental well-being.
- 4 **Mood Disorders:** Improves mood by balancing key neurotransmitters and reducing inflammation.



## **SECTION 03**

# **Integrating Peptides into Your Health Regimen**



# Integrating Peptides into Your Health Regimen

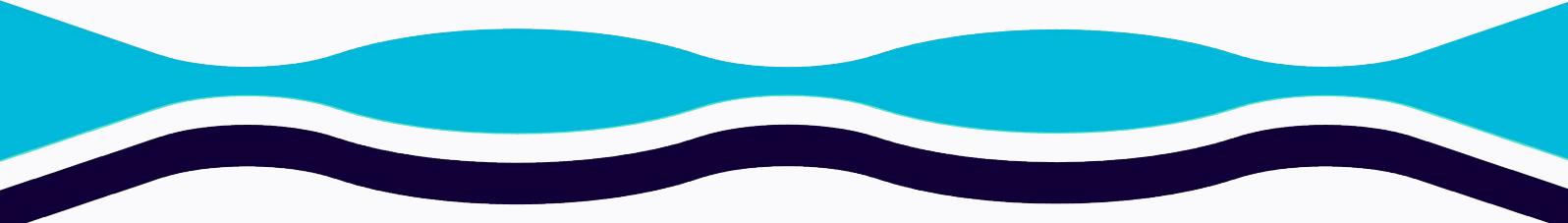
As we've reviewed, incorporating peptide therapy into your health regimen can provide numerous benefits, ranging from enhancing cognitive function & reducing anxiety to promoting muscle growth & improving metabolic health. Here's a few practical tips to effectively integrate peptides into your routine:

## **1) Consult with an Experienced Healthcare Professional**

Before starting any peptide therapy, it's crucial to consult with a healthcare professional who specializes in peptide treatments. They can provide personalized recommendations based on your specific health needs and goals, ensuring the safe and effective use of peptides.

## **2) Identify Your Health Goals**

In collaboration with a well-qualified medical practitioner, determine what you aim to achieve with peptide therapy. Whether it's enhancing cognitive function, reducing anxiety, promoting fat loss, or improving muscle mass, identifying your goals will help tailor the peptide regimen to meet your needs.



# Integrating Peptides into Your Health Regimen

## 3) Tailor Your Peptide Protocol

Based on your health goals, your healthcare professional can help you choose the appropriate peptides. For example:

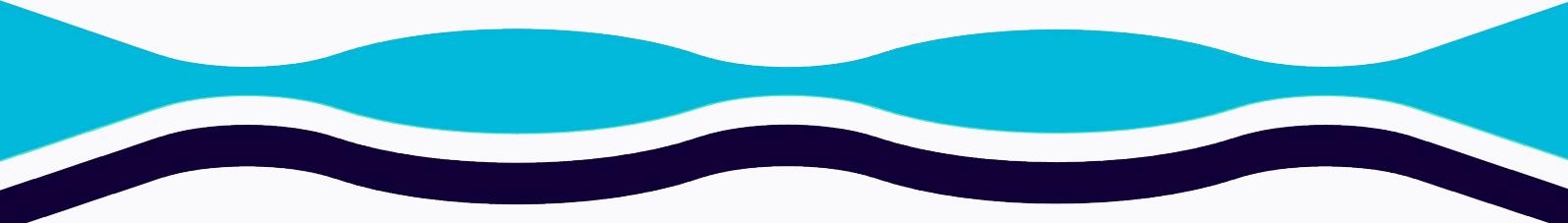
- **Cognitive Enhancement:** Pinealon, Selank, and PE-22-28.
- **Muscle Growth & Fat Loss:** IGF-1 & LR3 blend.
- **Metabolic Health & Energy:** AOD-9604, MOTs-c, and Tesamorelin blend.

## 4) Establish a Routine & Adhere to Dosing Guidelines

Dosing and consistency are critically important for a peptide regimen. Some peptides require administration 4-5 times a week through a subcutaneous (just below the skin) injection, while others might only need to be administered once or twice a week. Either way, it's essential to follow the dosing guidelines provided by your healthcare professional to ensure optimal results.

## 5) Monitor & Review Progress

As with any therapy, it's important to regularly track your progress and communicate with your healthcare provider to fine-tune your regimen as needed.



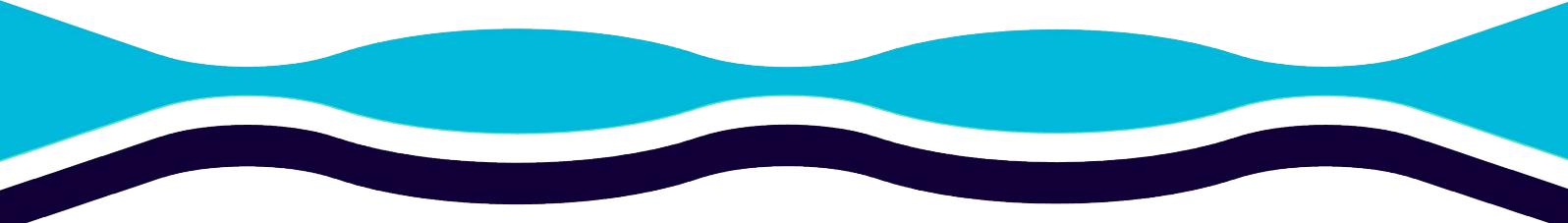
## Quick Recap & Next Steps

In this ebook, we've explored the various peptides available for enhancing physical and mental health, including NAD+, BPC-157, and specialized peptide blends. We discussed their mechanisms of action, potential health benefits, and various clinical applications.

**Before we conclude**, we always like to remind our patients and readers that any therapy is best combined with healthy habits and lifestyle choices. Peptide therapy is no exception!

- **Fat-burning peptides** like AOD-9604 aren't a free ticket for overeating. A healthy diet and portion control is still crucial for meaningful weight loss
- **Muscle-building peptides** like sermorelin won't lift weights for you. Exercise and resistance training is still a necessity
- **Cognitive boosting peptides** like semax and selank aren't a magic cure to stress & anxiety if you don't prioritize sleep and are constantly over-caffeinated.

With our obligatory reminder out of the way, let's close out with next steps.



# Quick Recap & Next Steps

## Next Steps

If you're interested in further exploring peptide therapy, you're more than welcome to schedule a consultation with the team at **BrainIQ Health Sciences**. You can easily book a time on our site using the button below.

We hope you enjoyed our "Guide to Peptides" and look forward to meeting with you at our clinic soon!

## BrainIQ Health Sciences

[\*\*Book a Free Consultation\*\*](#)

In-person consult with our nurse  
practitioner (15 mins)