

# Exploring Peptides

A RESEARCH-BASED GUIDE BY PURA WELLNESS

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# INTRODUCTORY GUIDE

## What are Peptides?

Peptides are short chains of amino acids, the same building blocks that form proteins. They act as the body's natural messengers, guiding how cells communicate and influencing processes such as metabolism, recovery, energy balance, and cognitive function.

In wellness and aging research, peptides are gaining attention for their ability to target specific pathways with precision. Their smaller size compared to proteins allows them to act quickly and effectively, making them a key focus in studies on weight management, recovery, and mental clarity.

Peptides are the body's natural messengers

## The Role of Peptides in Weight Gain & Healthy Aging

As we age, hormonal shifts and slower metabolism often contribute to weight gain and reduced muscle mass. This natural process, known as 'somatopause,' makes it more difficult to maintain a healthy balance of fat and lean tissue.

Peptides are being studied for their ability to support metabolism and muscle preservation, providing potential benefits for healthy aging. By influencing key pathways, they may help restore balance and improve overall wellness.

Peptides are being researched as tools to balance metabolism and aging

## Peptides in Modern Wellness Research

Modern research into peptides has expanded beyond traditional growth hormone pathways. Scientists are exploring their role in supporting recovery, brain health, immune balance, and metabolic regulation. These discoveries highlight peptides as versatile tools in the science of longevity and wellness.

From cognitive enhancers like Semax and Selank, to metabolic regulators like MOTS-C and NMN, peptides are becoming central to discussions about healthy aging and optimized performance.

Research on peptides is helping shape the future of wellness and longevity

# METABOLIC & ENERGY PEPTIDES



**MOTS-C** is a mitochondrial peptide that helps regulate energy balance and metabolism. It supports healthy weight management by improving:

- insulin sensitivity
- glucose uptake
- fat metabolism.

Research also shows it may reduce inflammation, protect against cellular aging, and boost exercise performance.

5-Amino 1MQ is a peptide known for supporting weight management and metabolic health. It works by inhibiting the enzyme NNMT, which helps increase energy expenditure and reduce fat accumulation. Research suggests it may also improve insulin sensitivity and cellular energy production, making it beneficial for overall metabolic function and vitality.



# **COGNITIVE SUPPORT**



**Semax** is a synthetic peptide known for its neuroprotective and nootropic properties. It helps support cognitive function, memory, and focus by enhancing levels of brain-derived neurotrophic factor (BDNF). Research suggests Semax may reduce stress and fatigue, and it has shown potential benefits in improving mood and protecting the nervous system against oxidative stress.

Selank is a peptide with strong anti-anxiety and nootropic effects. It helps promote a calm, balanced mood by modulating neurotransmitters like serotonin and dopamine. Studies suggest Selank can enhance focus, memory, and learning while reducing stress without causing sedation. It may also support immune system regulation, making it beneficial for overall mental and physical well-being.





**DSIP** (**Delta Sleep-Inducing Peptide**) is a naturally occurring peptide that supports healthy sleep cycles and promotes deep, restorative rest. It helps regulate circadian rhythms and may improve sleep quality without the grogginess linked to traditional sleep aids. DSIP has also been studied for its stress-reducing and antioxidant properties, supporting overall recovery and resilience. Additionally, it may aid in regulating hormone levels, particularly cortisol, contributing to better balance in the body.



Pinealon is a short peptide known for its neuroprotective and cognitive-supporting effects. It helps regulate gene expression in brain cells, supporting memory, focus, and overall mental clarity. Research suggests Pinealon may slow age-related cognitive decline by protecting neurons from oxidative stress and damage. Additionally, it has been studied for its ability to improve sleep quality, mood balance, and overall brain health

PE-22-28 is a peptide is studied for its neuroprotective and cognitive benefits. It has been shown to support memory, learning, and mood regulation by influencing neurotransmitter activity in the brain. Research also suggests it may help reduce stress and anxiety while promoting mental clarity and focus. Additionally, PE-22-28 may play a role in protecting neurons from age-related decline and oxidative stress.





**Epithalon** is a synthetic peptide best known for its potential anti-aging and longevity benefits. It works by activating telomerase, an enzyme that helps protect and lengthen telomeres, which are linked to cellular health and lifespan. Studies suggest Epithalon may improve sleep quality, enhance immune function, and support overall vitality. Additionally, it has antioxidant properties that protect cells from oxidative stress and agerelated damage.

## RECOVERY & REGENERATION



BPC-157 is a peptide known for its powerful healing and regenerative properties. It supports tissue repair by promoting angiogenesis (new blood vessel formation) and accelerating the healing of muscles, tendons, and ligaments. Research also suggests it may protect the gut lining, reduce inflammation, and improve recovery from injuries. Additionally, BPC-157 shows potential in supporting brain health and reducing the effects of oxidative stress.

TB-500 is a synthetic peptide derived from thymosin beta-4, recognized for its ability to accelerate healing and recovery. It promotes cell migration and new blood vessel formation, which supports faster repair of muscles, tendons, ligaments, and skin. TB-500 may also reduce inflammation and improve flexibility by preventing scar tissue buildup. Additionally, it has been studied for its potential to support cardiovascular health and overall tissue regeneration.





The Wolverine Stack is a blend of BPC-157 and TB-500 that is designed to maximize recovery, regeneration, and overall performance. It combines these peptides that work synergistically to accelerate tissue repair, reduce inflammation, and promote faster healing of muscles, joints, and tendons. This stack is often associated with improved energy, endurance, and resilience during physical stress. By supporting both recovery and vitality, the Wolverine Stack helps optimize performance and overall well-being.



The Glow Stack peptide blend is formulated to promote healthier skin, hair, and overall vitality. It supports collagen production and cellular repair, helping to improve skin elasticity, hydration, and a youthful appearance. The stack may also aid in reducing inflammation and oxidative stress, which are key contributors to aging. Together, these benefits make Glow Stack a powerful option for enhancing beauty and wellness from within

that supports wound healing and tissue repair by promoting angiogenesis and regeneration. Additionally, it has been studied for its potential in improving immune balance and protecting against chronic infections. LL-37 helps protect against bacteria, viruses, and fungi by disrupting harmful pathogens while also reducing inflammation.





GHK-Cu is a naturally occurring copper peptide complex known for its regenerative and anti-aging properties. It stimulates collagen and elastin production, helping to improve skin firmness, elasticity, and overall appearance. GHK-Cu also supports wound healing, reduces inflammation, and protects tissues from oxidative stress. Additionally, it has been studied for benefits in hair growth, skin repair, and overall tissue regeneration.

## WEIGHT & APPETITE REGULATION



Sermorelin is a peptide that stimulates the natural production and release of growth hormone by the pituitary gland. It supports healthy metabolism, muscle growth, and fat loss while promoting better sleep and recovery. Sermorelin may also enhance energy, vitality, and cognitive function by restoring more youthful growth hormone levels. Additionally, it has been studied for its role in slowing age-related decline and supporting overall wellness.

CJC-1295 is a peptide that stimulates the release of growth hormone, helping to promote muscle growth, fat loss, and improved recovery. It has a long half-life, allowing for sustained benefits in boosting natural growth hormone and IGF-1 levels. CJC-1295 may also enhance energy, sleep quality, and overall vitality by supporting cellular repair and regeneration. Additionally, it has been studied for its potential in slowing signs of aging and improving body composition.





Ipamorelin is a growth hormone-releasing peptide known for its ability to safely and selectively stimulate growth hormone production. It supports lean muscle growth, fat loss, and improved recovery without significantly affecting cortisol or prolactin levels. Ipamorelin may also promote better sleep, enhance energy, and support antiaging processes through cellular repair. Its gentle yet effective action makes it a popular choice for overall wellness and performance optimization.



Tesamorelin is a peptide that stimulates natural growth hormone release, leading to increased IGF-1 levels and enhanced metabolism. It is clinically known for reducing visceral fat, particularly around the abdomen, while supporting lean muscle development. Tesamorelin may also improve energy, sleep quality, and cognitive function through its regenerative effects. Additionally, it has been studied for its potential role in healthy aging and overall metabolic health.

Retatrutide is an experimental multi-receptor agonist peptide designed to support weight management and metabolic health. By targeting GIP, GLP-1, and glucagon receptors, it helps regulate appetite, enhance insulin sensitivity, and promote fat loss. Studies suggest it may significantly improve blood sugar control while reducing body weight and fat mass. Retatrutide also shows potential in supporting cardiovascular health and overall metabolic balance.





Melanotan 2 is a synthetic peptide that stimulates melanin production, leading to a natural-looking tan and increased skin protection from UV exposure. It has also been studied for its ability to boost libido and improve sexual function. Some research suggests it may help reduce appetite and support weight management. Overall, Melanotan 2 is valued for enhancing skin appearance, sexual health, and metabolic balance

# IMMUNE & DETOX



Glutathione is a powerful antioxidant peptide that plays a vital role in protecting the body from oxidative stress and cellular damage. It supports liver detoxification by binding to and neutralizing toxins, heavy metals, and harmful free radicals. Glutathione also helps boost immune system function and reduces inflammation, promoting overall wellness. Additionally, it contributes to healthier skin by brightening complexion and reducing signs of aging.

Lipo-C is a blend of lipotropic compounds and vitamin C designed to support fat metabolism, energy production, and overall wellness. It helps the body break down and utilize fat more efficiently, which may aid in weight management and improved metabolic function. The addition of vitamin C boosts immune health and provides antioxidant protection against cellular damage. Together, Lipo-C supports increased energy levels, enhanced fat loss, and better overall vitality.





Kisspeptin is a naturally occurring peptide that plays a critical role in regulating reproductive health by stimulating the release of gonadotropin-releasing hormone (GnRH). This action helps support fertility, reproductive function, and overall hormonal balance. Research suggests that Kisspeptin may also enhance libido and improve reproductive outcomes. Additionally, it is being studied for its potential influence on mood and emotional well-being due to its connection with hormonal regulation.



**KPV** is a naturally occurring peptide fragment derived from the larger  $\alpha$ -MSH (alpha-melanocyte stimulating hormone) that is known for its strong anti-inflammatory properties. It helps reduce cytokine activity and oxidative stress, making it valuable for supporting immune health and tissue healing. KPV has also been studied for its ability to protect the gut lining and improve conditions related to intestinal inflammation. Overall, it promotes recovery, reduces systemic inflammation, and supports overall wellness.

SS-31 is a mitochondria-targeting peptide designed to protect and improve cellular energy production. It works by binding to cardiolipin in the inner mitochondrial membrane, reducing oxidative stress and preventing mitochondrial dysfunction. Research suggests SS-31 can enhance energy efficiency, protect against age-related decline, and support cardiovascular, muscular, and neurological health. Overall, it promotes healthier cells by boosting mitochondrial performance and resilience.





Thymosin Alpha-1 is a peptide known for its strong immune-boosting and regulatory effects. It enhances the body's natural defense system by stimulating T-cell production and improving immune response to infections. Research suggests it may help reduce chronic inflammation while supporting recovery from illness and immune-related conditions. Additionally, Thymosin Alpha-1 has shown potential in promoting overall resilience, vitality, and balanced immune function.

## ESSENTIAL NUTRIENTS BEYOND PEPTIDES



NAD+ is a vital coenzyme that plays a key role in cellular energy production and mitochondrial function. It supports healthy aging by promoting DNA repair, reducing oxidative stress, and enhancing cellular resilience. Supplementing NAD+ may also improve metabolism, mental clarity, and overall vitality.

Vitamin B12 is an essential nutrient that supports energy production, red blood cell formation, and nervous system health. Supplementing with B12 can help reduce fatigue, improve mental clarity, and support overall cognitive function. It also plays a key role in metabolism, aiding in the breakdown of fats and carbohydrates for sustained energy. Additionally, B12 helps maintain healthy mood balance and supports longterm cardiovascular wellness.

