Pteroyouth® is a **patented polyphenols combination that** redefines the boundaries of **cellular resilience** by activating key pathways that enhance the cell's natural ability to **defend, repair, and recover** from biological stress. [1]

In an accelerated aging model, this innovative formula has demonstrated **remarkable efficacy** in **protecting and regenerating the body's cells** exposed to **high-intensity ionizing radiation**. It also displayed autophagy & mitophagy, reduced apoptosis, and lower chromosomal abnormalities. [1]

By modulating key proteins involved in **DNA and mitochondrial repair**, as well as anti-inflammatory and antioxidant responses, Pteroyouth pushes the boundaries of cellular protection.

Its components stimulate critical pathways such as **SIRT1, SIRT3 and Nrf2,** addressing the primary drivers [1]

of the body's deterioration including **DNA damage and oxidative stress** while also modulating **the NF-κB** pathway reducing **chronic inflammation.**[1]

The science of cellular resilience underpins cutting-edge innovations in radioprotection, longevity, and skin regeneration.

Visible and lasting renewal begins at the cellular level — **powered by CIRCE Health Science.**

Main benefits

Anti-aging
Activates SIRT1 and SIRT3 to support cellular renewal and may reduce visible signs of aging.[1]

Anti-inflammatory
Modulates NF-κB, a mechanism involved in inflammation and may encourage natural healing and alleviate inflammation. [1]

Activates antioxidant system
Activates Nrf2, the pathway involved in producing the body's natural antioxidant defenses to protect against oxidative damage. [1]

Neuroprotective
Supports brain cell health and may promote cognitive well-being. [2]

Beauty from within
Contributes to radiant and healthy skin by nourishing cells from the inside out. [1]

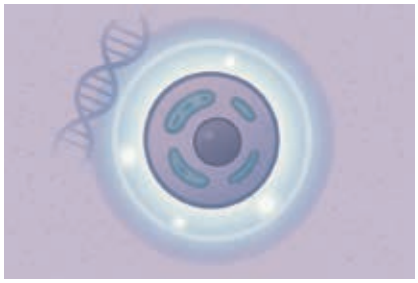
Sports performance
Assists in improving recovery after physical activity.

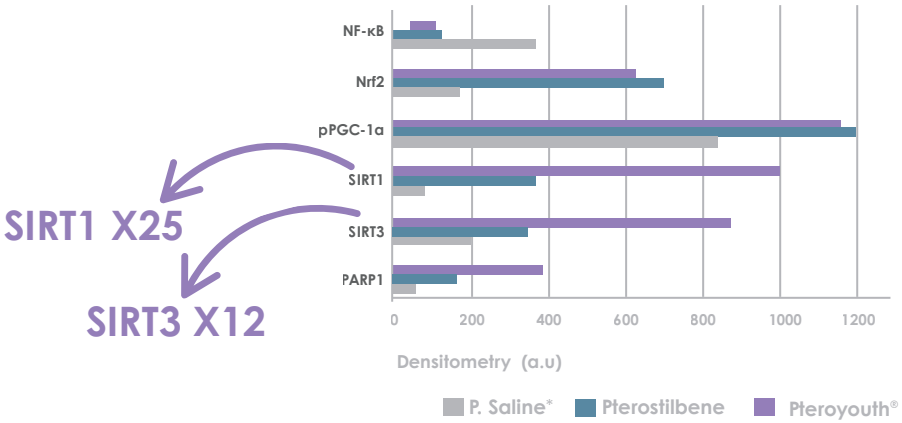
Regulates in cardiovascular health and diabetes
Could help regulate blood sugar levels and promote cardiovascular wellness. [3]

How Pteroyouth® Works

Nature's most potent SIRTUINS activator

Pteroyouth® unlocks sirtuins mediated cell defense and survival in response to stress, involved with diverse biological functions including cell development, metabolism, DNA repair, apoptosis, and longevity. [1]





Pteroyouth® strongly increases SIRT1 and SIRT3 levels

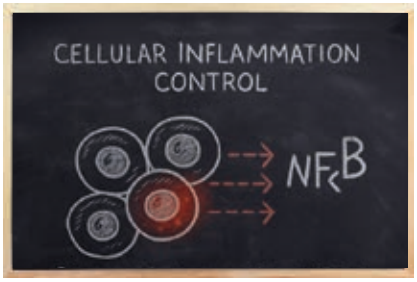
Figure 1. Sirtuins are key enzymes in aging, and Pteroyouth acts as a potent activator. This boosts sirtuins' ability to regulate proteins, controlling harmful ones like NF-kB and enhancing mitochondrial function through SIRT1 activation of pPGC-1a. SIRT3 improves DNA repair via PARP1, while Pteroyouth also increases Nrf2 levels, reinforcing antioxidant defenses.
*P. Saline = physiological saline.

Beyond antioxidants

Pteroyouth® doesn't just neutralize free radicals; it can help empower your body's own antioxidant defenses through Nrf2 activation, generating its own antioxidants. This proactive approach provides comprehensive protection against oxidative stress. Recent preclinical findings also support reduced oxidative damage markers in DNA, proteins, and lipids, together with fewer chromosomal abnormalities. [1]

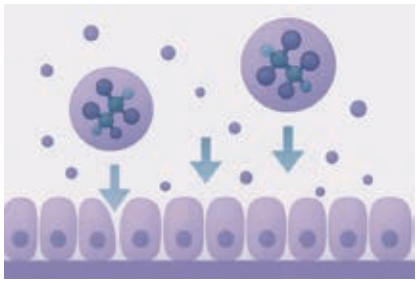
Pteroyouth down regulates pro-inflammatory signal molecules

Pteroyouth® can help cells down regulate NF-kB, a complex understood as the command-and-control center when it comes to inflammation in the body. [1]



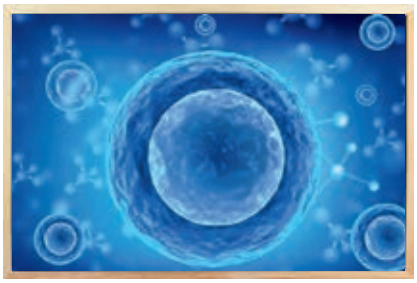
Enhanced bioavailability in humans

Pteroyouth® brings together two polyphenols in a unique patented active complex powered by **Pterovita®**, delivering a remarkable boost in bioavailability and ensuring optimal results with minimal dosage. [1]



Autophagy

Preclinical findings also support activation of autophagy, helping cells remove damaged components and strengthen cellular maintenance under severe biological stress. 1 This is especially relevant in longevity-focused formulations, as autophagy plays a central role in preserving cellular quality and resilience as biological stress accumulates with age. [4]

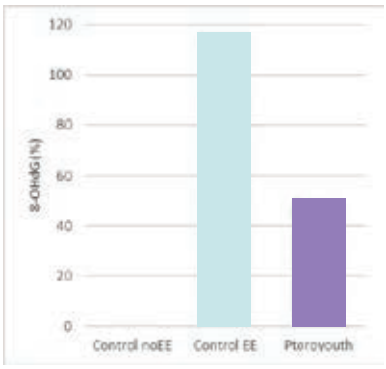


Mitophagy

Aditionally the same preclinical study results support for mitophagy- related mitochondrial health pathways, helping preserve mitochondrial function under severe biological stress. [1]

Sports

A key aspect of Pteroyouth®'s scientific profile is its ability to support endogenous antioxidant defense pathways through Nrf2 activation while reducing oxidative damage markers such as 8-OHdG. This makes it a relevant ingredient for sports-support and active-performance formulations seeking a stronger cellular-protection and oxidative-stress-management story. [1]



-56% damage

Supports antioxidant defence via Nrf2 activation, reducing oxidative damage (8-OHdG) and enhancing cellular protection in sports performance.

Figure 2. 8-OHdG levels corrected by creatinine levels in urine at the end of the experiment*.
noEE= without exhaustive exercise;
EE: exhaustive exercise

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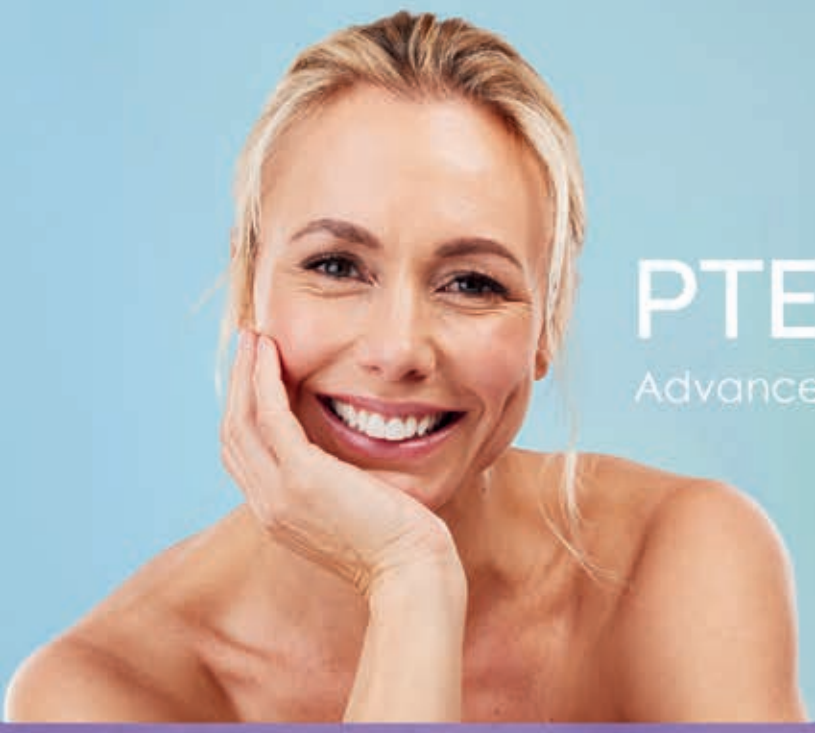

PTEROyouth®

Advanced Cell Resilience Complex

Ready to find out more about how you can use Pteroyouth® in your formulations?

Contact our sales team.

We're looking forward to working with you.

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