



# Epicatechin

Mitochondrial health  
and cellular energy



# Why This Matters

Epicatechin is currently one of the most studied natural compounds by scientists for its effects on cellular energy.

Interest has grown rapidly, but understanding remains limited for most people. Quality, purity, and proper use make a significant difference in results.





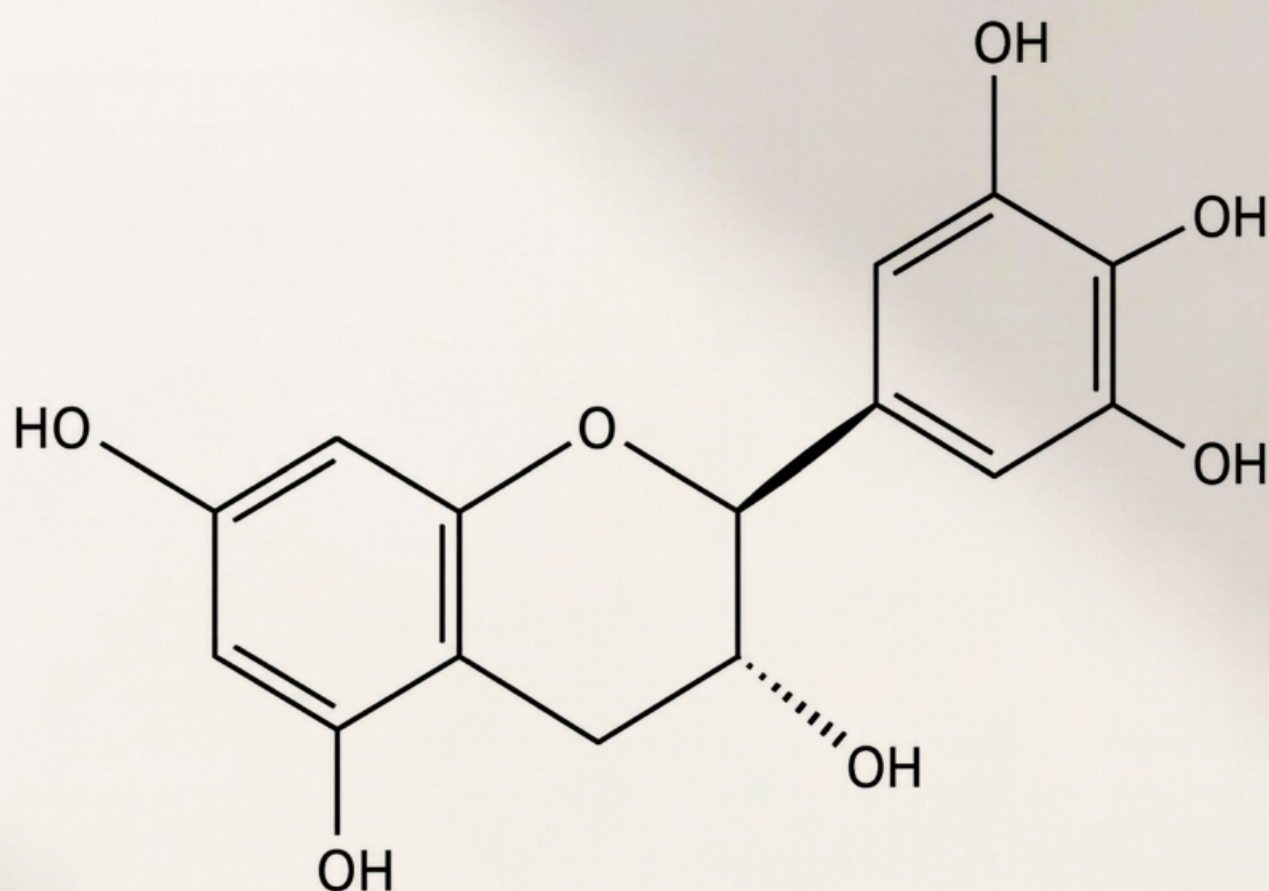
# What Exactly Is Epicatechin?

A naturally occurring flavanol belonging to the catechin family. Most abundant in cacao beans and green tea, but also found in smaller amounts in apples, certain berries, etc. It is a bioactive compound that interacts with cellular signaling pathways.



# Chemical Structure of (-)-Epicatechin

The specific "-" stereoisomer is the biologically active form relevant for mitochondrial health.







# How Epicatechin Is Produced

Primarily obtained through natural extraction from cacao beans and green tea. It takes roughly 400 grams of green tea to produce the amount of Epicatechin found in one 50 mg Mitozz capsule. High-quality production requires careful extraction to preserve the active compound.





# Purity Matters

Not all compounds found in plants  
are beneficial. Impurities can  
interfere with the desired effects.





# The Mitochondrial Connection

Epicatechin supports mitochondrial health through four key actions:

- Protect mitochondria from damage
- Multiply (support biogenesis of new mitochondria)
- Regulate their function and efficiency.
- Repair and maintain mitochondrial quality.

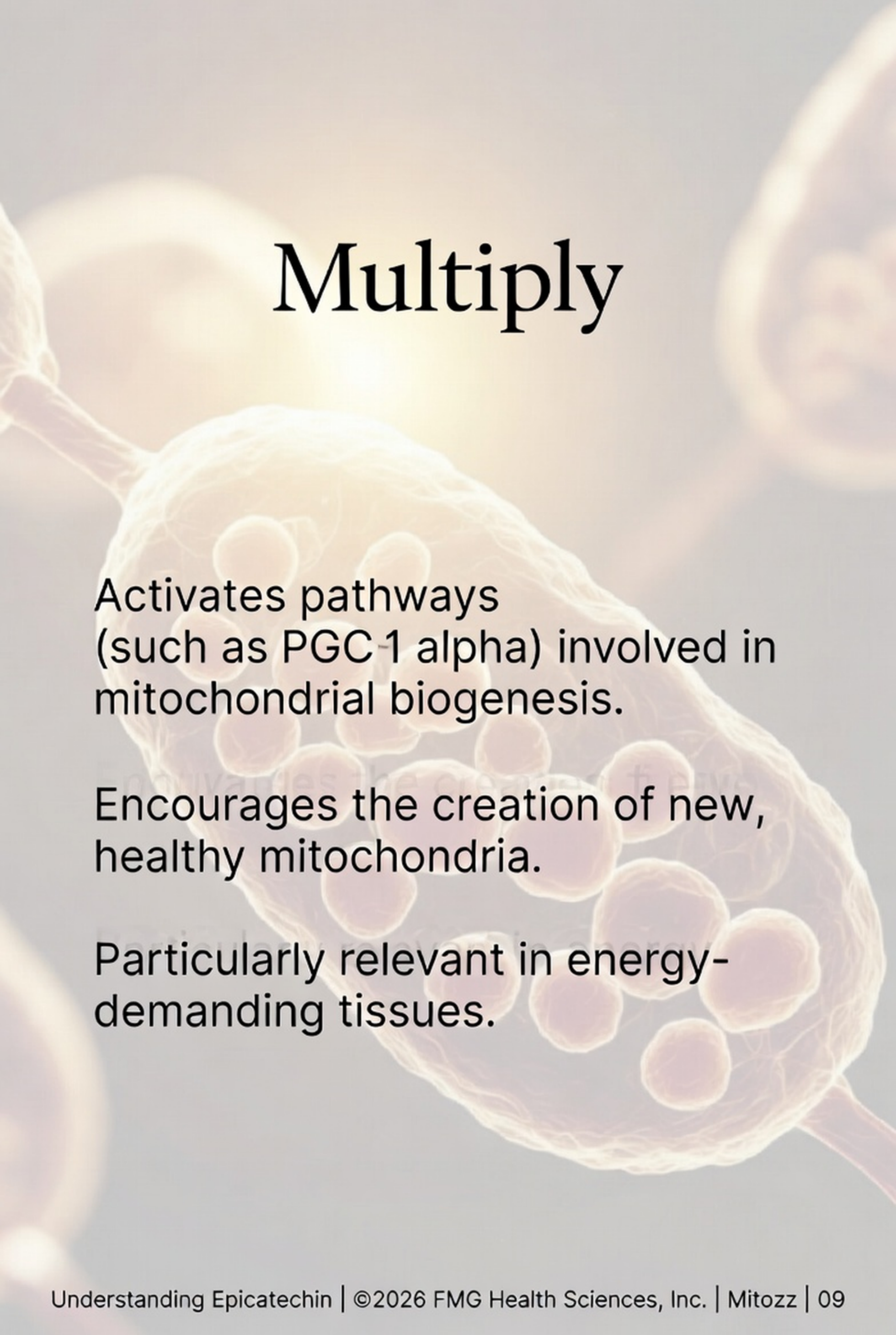
# Protect

Helps reduce oxidative stress inside mitochondria. Supports antioxidant defenses at the cellular level. Protects mitochondrial DNA and proteins from damage.





# Multiply

The background of the slide features a stylized, semi-transparent illustration of a cell. A large, central nucleus is visible, containing several smaller, circular nucleoli. Surrounding the nucleus are numerous mitochondria, depicted as bean-shaped structures with internal folds (cristae). The entire illustration is rendered in a soft, golden-yellow color against a light, hazy background.

Activates pathways (such as PGC-1 alpha) involved in mitochondrial biogenesis.

Encourages the creation of new, healthy mitochondria.

Particularly relevant in energy-demanding tissues.



# Regulate

Supports more efficient energy production (ATP).

Helps optimize mitochondrial performance rather than just increasing quantity.

Influences how mitochondria respond to energy demand and stress.



# Repair & Quality Control

Supports mitophagy: the process of removing damaged mitochondria. Helps maintain a healthier population of mitochondria over time. Works together with biogenesis for long-term mitochondrial maintenance.

# What Human Research Shows

Multiple human studies have demonstrated Epicatechin's positive effects on mitochondrial function, exercise performance, and vascular health. Results are promising but depend heavily on the purity, quality and dosage of Epicatechin used.



# The Reality of Purity

Impurities in poorly purified Epicatechin can interfere with its benefits. These impurities may bind to or affect the same cellular receptors that pure (-)-Epicatechin targets. This can potentially reduce or negate the positive effects. High-purity (-)-Epicatechin is therefore essential.

# Dosage - Finding the Sweet Spot

Research suggests there is an optimal range — too little or too much can be less effective. A dosage of 100 mg per day (split into two 50 mg doses) is proven to be the optimal dose for most people.



# Formulation & Bioavailability

Epicatechin has naturally limited bioavailability. Mitozz was specifically formulated to optimize bioavailability and delivery to the cells.

The form and delivery method significantly impact how much reaches the mitochondria.

# Stability & Quality

Epicatechin can degrade if not properly stabilized. Mitozz uses a proprietary Epicatechin purification technology designed to maintain stability and potency. Proper manufacturing and storage are critical for effectiveness.





# Rigorous Testing & Manufacturing Standards

Testing for heavy metals, microbial contaminants, and other impurities is critical for safety and efficacy. Mitozz is manufactured in a GMP-certified facility and tested in a GLP-certified laboratory. This ensures consistent quality, purity, and safety in every batch.

# A Thoughtful Approach

Epicatechin works best as part of a broader strategy. Combining Mitozz with foundational lifestyle factors — regular exercise, quality sleep, good nutrition, and stress management — creates a more powerful effect. It is not a replacement for healthy habits, but a supportive tool.



# Key Takeaways

Epicatechin is a well-studied natural compound that supports mitochondrial health through **protect, multiply, regulate, and repair** mechanisms. Results depend heavily on purity, proper dosage, formulation, stability, and rigorous testing.

Choosing a high-quality source (such as one made in GMP facilities and tested in GLP labs) and using it thoughtfully alongside lifestyle fundamentals offers the most effective approach.

# Learn More

To explore the  
science and  
discover Mitozz,  
visit  
[mitozz.com](https://mitozz.com)