



True Protocols™

MITOCHONDRIA BALANCE

Optimal Energy Production

- Specifically designed to provide key nutrients and cofactors that have been shown in studies to restore mitochondrial function, repair key structural components, and protect from further damage.
- Strong doses of N-Acetyl-L-Carnitine, Co-Q10, PQQ, and B Vitamins.
- For optimal results, take in combination with Magnesium Balance and Vitamin D-K2 Balance.

What Are Mitochondria And What Do They Do?

Mitochondria are our bodies energy factories, and we have them in nearly all of our cells. Their primary function is to produce energy in the form of ATP, using calories and nutrients stored in food and the oxygen that we breathe to power our bodies. Without them, life would not be possible.

We're learning more about the important role of mitochondria beyond just energy producers, with current research showing a strong relationship between mitochondrial health and inflammation, microbial infections, oxidative damage and the regulation of cell life span.

It's not surprising that mitochondrial dysfunction is associated with a host of diseases and conditions, including chronic pain, aging, obesity, diabetes, cardiovascular disease, neurological diseases and many others. The key role that mitochondria play in our bodies means that improving and maintaining their function is essential to our health.

How Is Mitochondrial Function Related To Muscle Pain?

When muscles are in a locked state, they cause pain. When calcium dominates magnesium in muscle those cells are deprived of blood flow, and there is the potential to damage the mitochondria.



NPN: 80076136

120 Vegi-Caps

Serving Size: 1 Capsule

Ingredients:

L-Carnitine	250mg
CoQ10	100mg
PQQ	2.5mg
Vitamin B1	15mg
Vitamin B2	2.5mg
Vitamin B3	100mg
Vitamin B5	50mg
Vitamin B12	500mcg
Folic Acid	100mcg

Suggested Use:

Take 1 capsule, 2 times per day. For use beyond 3 months, consult a health care practitioner.

Main Applications:

- Increased Energy
- Athletic Performance
- Cardiovascular Health
- Mitochondrial Function



Non-GMO



Vegan



Gluten free

Healthy mitochondria play an essential role in balancing calcium and magnesium levels, so they need to be functioning optimally. We can improve their function by providing more fuel for energy production, protecting their delicate structures from excessive damage and even supporting the formation of new mitochondria. By doing so we can reduce inflammation, restore nerve cell function, and help to undo the damage caused by calcium oxidative stress.

How Does Mitochondria Balance Work To Improve Muscle Function?

Mitochondria Balance has been specifically formulated to provide key nutrients and cofactors that have been shown to restore mitochondrial function, repair key structural components and protect them from further damage.

Here's how each of these ingredients contribute to improved mitochondrial function:

N-Acetyl-L-Carnitine is an amino acid that plays a central role in the breakdown of fatty acids and their subsequent transport into the mitochondria to be used in the production of cellular energy. A number of studies using human subjects have found that L-Carnitine supplementation reduces damage to muscle and decreases muscle soreness especially after exhaustive exercise when oxygen is limited. A new mechanism being explored is that L-Carnitine improves blood flow in areas with poor oxygen levels.

Coenzyme Q10 (Co-Q10) plays a direct role in cellular energy production and is a powerful antioxidant within the mitochondrial membrane. The body naturally produces Co-Q10 but production peaks at age 20 and continually declines with age, and production can be further diminished by common drugs such as statin medications. There is substantial research showing that Co-Q10 can improve heart function, repair nerves, slow brain decline, prevent migraines and promote muscle recovery. Co-Q10's antioxidant activity includes re-charging other antioxidants by keeping them in their active states.

Pyrroloquinoline Quinone (PQQ) is a recently discovered compound that is part of the B-vitamin family that is incredibly promising as a therapeutic agent. One of its functions is to work as an antioxidant within mitochondria, protecting them from oxidative damage, as well as directly stimulating key enzymes in the mitochondria to boost energy production. One of the most exciting functions of PQQ is that it is the only nutrient that can cause the spontaneous generation of new mitochondria within aging cells!

The B Vitamins - Benfotiamine is a water soluble form of **Vitamin B1**. Its unique structure allows it pass through the cells membrane where it is converted into Thiamin Pyrophosphate (TPP). TPP promotes the delivery of fuel into the mitochondria, stimulating improved energy production.

Vitamin B2 helps to produce energy, rid the body of free radicals, and help the body change **Vitamin B6 (found in Magnesium Balance)** and folate into useable forms.

Vitamin B3 helps the body convert protein, fat and carbohydrates into usable energy. It also helps to regulate blood sugar levels and manufacture new DNA.

Vitamin B5 helps release energy from sugars, starches, and fats. B5 is used to manufacture red blood cells and for the creation of fats in the body.

Folic acid (Vitamin B9) helps to complete the development of red blood cells, maintain healthy circulation and in the creation of skin and intestinal cells.

Vitamin B12 is used in in DNA and fatty acid synthesis and production.

The real therapeutic potential of the Mitochondria Balance formula is experienced when taken in combination with Magnesium Balance and Vitamin D-K2 Balance as they each address a key component of the chronic pain cycle. Together they increase magnesium levels which is essential for muscle and nerve function, regulate calcium levels and re-ignite the production of life-giving energy from our mitochondria to ensure optimal muscle function and improve overall health.