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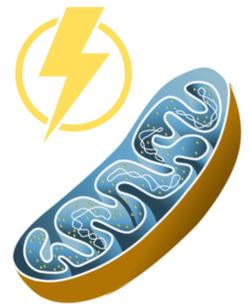
Personal Training and Fitness Solutions

HEALTH TOPIC OF THE WEEK

1/9 - The Role of CoQ10 in Aging

What is CoQ10?

Coenzyme Q10 (commonly referred to as CoQ10) is a vitamin-like nutrient stored in the mitochondria of your cells. Think of mitochondria as the energy factory or power plant of the cell. CoQ10 is found in every cell in the body. However, levels are highest in organs with high rates of metabolism, such as the heart, kidney and liver. CoQ10 helps convert food into energy and acts as a powerful antioxidant.



What's so great about CoQ10?

CoQ10 has been shown to suppress factors involved in nearly all chronic disorders!

How does aging affect CoQ10?

Aging causes mitochondrial function and CoQ10 synthesis to decline, which contributes to various degenerative conditions. Certain diseases and medications can also decrease normal CoQ10 levels. For example, statin drugs prescribed to lower LDL cholesterol reduce CoQ10 production.

How can you prevent mitochondria from aging?

Regular exercise significantly improves mitochondrial function, especially as we age. Exercise, particularly resistive training, allows your body to make more mitochondria and to make existing mitochondria larger. In fact, this is one of the reasons muscles grow and get bigger after exercise.

Additionally, research has shown that supplemental CoQ10 improves mitochondrial function as well as organ performance and defends against the assaults of aging.



Elite Personal Training and Fitness Solutions does not provide medical treatment or intervention. We acknowledge scientific evidence that appropriately intensive exercise and sustainable nutritional intervention can have significant impact on chronic health disorders and obesity, dramatically improving symptoms when recommendations are followed. Please visit us at Eliteptf.com for more information and to schedule your evaluation.

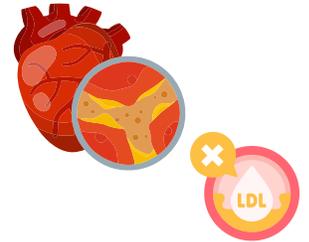
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Health Benefits of Co-Q10

Heart Function

CoQ10 is no newcomer to heart health. It has been prescribed in Japan to treat heart failure for decades. Recent preclinical and clinical evidence indicates that CoQ10 plays significant roles in preventing and relieving heart disease including:

- preventing accumulation of cholesterol in the arteries
- decreasing stiffness of blood vessels
- improving the function of the cells that line the inside of blood vessels
- reducing total cardiac adverse events by 45%



Brain Aging

Mitochondrial dysfunction is believed to play a major role in the development of brain-aging diseases like Parkinson's and Alzheimer's disease. Studies have shown that:

- daily CoQ10 dosages of 1200 mg/day led to 44% less functional decline than a placebo
- use of CoQ10 decreased the amount of beta - amyloid, a protein that accumulates in the brains of Alzheimer's patients
- cognitive and behavioral performance improved in animal testing



Body Aging

CoQ10 is associated with reduced wrinkles, enhanced physical performance, and improved lung function. CoQ10 deficiency is linked to increased mitochondrial damage, which leads to age-related diseases.

Inflammation

We've said it before, but it bears repeating. Chronic inflammation drives many chronic diseases. Meta-analysis of randomized controlled clinical trials have concluded that CoQ10 supplementation can significantly lower inflammatory markers, reduce oxidative stress and improve blood sugar control and liver function.

Cellular Energy

Almost 90% of our energy production is related to mitochondria. Mitochondria is key to brain function, amino acid and lipid metabolism, immune support, and breakdown of harmful waste.



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Did you know?

Nutrients such as iron, selenium, the B vitamins, and vitamins C and E can help repair damaged mitochondria.

CoQ10 production naturally declines as we age past about 40 years old— just when we need our cells to help defend us the most. This means older adults and those looking to age gracefully may wish to supplement with it.



Summary

CoQ10 has shown promise in preventing and slowing degenerative disorders, minimizing cardiovascular damage, and slowing brain aging.

It functions via multiple mechanisms to enhance mitochondrial energy while combating chronic inflammation and oxidative stress [damage caused by free radicals].

If you have questions about CoQ10 or other nutritional concerns, our Certified Nutrition Professionals can help. Please reach out to EPT for research-based guidance.



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