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ESSENTIALS

# COENZYME Q10

Supports energy levels, recommended for use alongside statin medications.

## Nutritional Information

One Tablet provides:

Coenzyme Q10

Take one tablet daily with food. Swallow with water.



## SUMMARY

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- Available in two strengths
- As ubiquinone
- Recommended for energy levels, heart health and male fertility.

## DESCRIPTION

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CoQ10 is found naturally in cells throughout the body particularly in the mitochondria which are involved in cellular energy production. CoQ10 supplementation is recommended for patients on cholesterol lowering statin medications which lower CoQ10 levels in the body increasing the risk of adverse effects such as pain and muscle weakness. CoQ10 is indicated to be helpful for increasing energy levels, athletic endurance and male fertility, it may also maintain gum health and reduce blood pressure levels and migraine frequency.

## WHAT DOES COQ10 DO WITHIN THE BODY?

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CoQ10, also known as ubiquinone is a naturally occurring quinone (organic compound) that is required for human health. The primary action of CoQ10 is as a co factor in the synthesis of ATP (energy) and levels are highest in organs with high metabolic rates such as the heart, kidneys, liver, spleen, pancreas and adrenal gland<sup>1</sup>. Ubiquinone is reduced in the body into its antioxidant form where it mops up reactive oxygen species (ROS). It is one of the primary fat-soluble antioxidants within the body and helps to protect proteins, fats and DNA from oxidative damage.<sup>1</sup>

## HOW DOES COQ10 SUPPLEMENTATION IMPROVE HEALTH STATUS?

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**Fat loss:** CoQ10 regulates the rate at which fat is metabolised and may be useful for those wanting to lose fat mass. One study showed that CoQ10 supplementation could increase the rate of fat oxidation (burning of fat) during a workout<sup>2</sup>.

**Energy production:** CoQ10 is required for the production of energy (ATP) which is needed for every cell. Without it, energy production is impaired. Natural CoQ10 synthesis decreases with age. The decline starts at around the age of 30 and may be the reason for some of the fatigue experienced by seniors. A placebo-controlled trial looked at trained and untrained individuals who were given CoQ10 supplementation or a placebo for 2 weeks. Anaerobic capacity and endurance were tested as well as blood analytes. CoQ10 levels were significantly increased in the CoQ10 supplemental group in both plasma and blood. A trend for increased time to exhaustion was observed in the CoQ10 supplemental group.

**Migraines:** CoQ10 is an important nutrient in nerve cell energy production and the function of the mitochondria. Malfunctioning of the mitochondria may lead to excessive calcium uptake and excessive production of free radicals which can cause low energy in the nerve cells, headaches and migraines<sup>3</sup>. A placebo-controlled trial demonstrated that CoQ10 was significantly superior to the placebo at reducing migraine frequency and number of days headaches & nausea occurred. By the third month of supplementation, attacks were reduced by 50% in 47.6% of subjects to supplemented with CoQ10<sup>4</sup>.

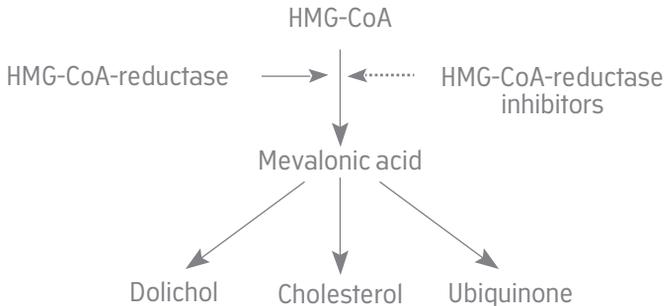
**Male infertility:** Spermatozoa requires CoQ10 and in healthy sperm, levels are concentrated in the mitochondrial midpiece. Sperm cells are dependent on CoQ10 for energy and movement. A study was conducted on sperm with low fertilisation rates at intracytoplasmic sperm injection (ICSI). CoQ10 supplementation was given for 103 days, and a significant improvement in fertilization rates occurred<sup>5</sup>.

**Periodontal disease:** Excessive bacteria in the mouth can induce reactive oxygen species and cause oxidative damage and the breakdown of collagen present in the gums. CoQ10 once converted into its antioxidant form within the body acts to protect the collagen from damage and suppresses inflammation in advanced periodontal disease<sup>6</sup>. Studies show that patients with periodontal disease frequently have significant gingival deficiencies in CoQ10. This predisposes the patient to periodontitis as the collagen degrades through oxidative damage and is no longer able to support teeth. CoQ10 supplementation is recommended along with oral hygiene to support recovery from periodontal disease<sup>7</sup>.

**Hypertension:** Collagen helps to keep blood vessels elastic which helps to maintain normal blood pressure levels. Collagen requires antioxidant protection to maintain its function. A placebo-controlled trial amongst patients receiving hypertensive medication looked at the effects of CoQ10 supplementation for 8 weeks on multiple markers. Systolic and diastolic blood pressure were reduced as well as fasting glucose and insulin levels. It was also noted that vitamins A, C, E and beta-carotene were increased indicating that the reduction in blood pressure and fasting glucose was due to a reduction in oxidative stress and a favourable environment for the collagen in blood vessels<sup>8</sup>.

## COQ10 AND STATIN MEDICATION

Statins which are HMG-CoA reductase inhibitors, prevent the synthesis of cholesterol by the liver. This unfortunately also decreases the production of CoQ10.



CoQ10 supplementation alongside cholesterol lowering medication ensures an adequate supply of CoQ10 to the body tissues and prevents adverse effects associated with CoQ10 deficiency.

## ARE THERE ANY PRECAUTIONS BEFORE OR WHILE TAKING COQ10 SUPPLEMENTATION?

Quest CoQ10 is intended exclusively for adults.

Consult a health professional before taking during pregnancy and breastfeeding.

## FEATURES

- Two strengths
- As ubiquinone
- Recommended for energy levels, heart health and male fertility.

## HEALTH NEEDS



SPECIALIST  
HEALTH



ENERGY



MEN'S HEALTH &  
FERTILITY



SENIOR'S  
HEALTH



HEART &  
CIRCULATION

## SCIENTIFIC REFERENCES

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