



### Each softgel contains:

Vitamin D <sub>3</sub> (Cholecalciferol)	2000 IU
Coenzyme Q-10	200 mg

#### **CARDIOVASCULAR HEALTH:**

CoQ10 and Vitamin D<sub>3</sub> are beneficial for supporting heart health and exert protective effects on cardiovascular and renal health. Multiple studies have linked Vitamin D<sub>3</sub> deficiency with higher risk of high blood pressure and cardiomyopathy. Vitamin D<sub>3</sub> modulates such risks via the inhibition of the renin-angiotensin-aldosterone system. Vitamin D<sub>3</sub> and CoQ10 has antihypertrophic effects on cardiac cells that regulate calcium and myosin, decrease natriuretic peptide and also play an important role in different cardiac infections.

#### **BRAIN HEALTH:**

Mitochondrial function tends to decrease with age, which can lead to the death of brain cells and contribute to conditions like Alzheimer's and Parkinson's. Unfortunately, the brain is very susceptible to oxidative damage due to its high fatty acid content and its high demand for oxygen. This oxidative damage enhances the production of harmful compounds that could affect memory, cognition, and physical functions. CoQ10 with Vitamin D<sub>3</sub> may reduce these harmful compounds, possibly slowing the progression of Alzheimer's and Parkinson's disease.

#### **BONE HEALTH:**

Vitamin D<sub>3</sub> plays an essential role in maintaining healthy bones. Vitamin D<sub>3</sub> promotes calcium absorption and helps maintain calcium and phosphate levels necessary for mineralization of bone. It is also needed for bone growth and bone remodeling by osteoblasts (cells that build up bone tissue) and osteoclasts (cells that degrade bone to initiate normal bone remodeling). Vitamin D<sub>3</sub> deficiency can result in thin, brittle, or misshapen bones, as well as rickets in children and osteomalacia in adults. Together with calcium, Vitamin D<sub>3</sub> also helps prevent osteoporosis in older individuals.

#### **IMMUNE HEALTH:**

Vitamin D<sub>3</sub> has been defined as natural immune modulator, and upon activation of Vitamin D<sub>3</sub> receptors (VDRs), it regulates calcium metabolism, cellular growth, proliferation and apoptosis, and other immunological functions. Epidemiological data underline a strong correlation between poor Vitamin D<sub>3</sub> status and higher risk for chronic inflammatory illnesses of various etiologies, including autoimmune diseases. Diseases with an autoimmune etiology like Multiple Sclerosis, Rheumatoid Arthritis and Crohn's disease have been shown to have strong association with low levels of Vitamin D<sub>3</sub>. The combination of Vitamin D<sub>3</sub> and CoQ10 reduces the auto immune disease rate, as CoQ10 protect cells against oxidative damage.

#### **CELLULAR HEALTH:**

CoQ10 helps generate energy in the cells by making adenosine triphosphate (ATP), which is involved in cell energy transfer. The crucial role of CoQ10 is to serve as an antioxidant and protect cells against oxidative damage. ATP is used to carry out all the body's functions and oxidative damage is destructive to cells, some chronic diseases have been associated with low levels of CoQ10. Its production decreases with age. Thus, older people can be deficient in this compound and may need the external source of CoQ10. Vitamin D<sub>3</sub> affects the cellular proliferation by modulating different processes including apoptosis, cell cycle progression, and differentiation in a cell specific manner.

#### **HAIR & SKIN HEALTH:**

Skin is the largest organ in the body and it's widely exposed to damaging agents that contribute to aging. Some internal damaging factors include cellular damage and hormonal imbalances, while external factors include environmental agents such as UV rays. Harmful elements can lead to reduced skin moisture as well as the thinning of the layers of the skin. When CoQ10 is applied directly to the skin, it may help reduce oxidative damage caused by UV rays and help decrease the depth of wrinkles. Vitamin D<sub>3</sub> may play an important role in preventing this hair loss by retaining a healthy hair follicle, which ensures that the hair remains healthy and strong. Vitamin D<sub>3</sub> may also help in the absorption of Calcium, which helps in the secretion of hormones, such as biotin, that promote the growth of strong healthy hair.

#### **LUNGS HEALTH:**

Of all the organs, lungs have the most contact with oxygen. This makes them very susceptible to oxidative damage. Increased oxidative damage in the lungs and poor antioxidant protection, including low levels of CoQ10, can result in lung diseases, such as chronic obstructive pulmonary disease (COPD) and asthma. A 2005 study demonstrated that supplementing with CoQ10 may have reduced inflammation in individuals who had asthma, as well as their need for steroid medications to treat it.

#### **IMPROVES FERTILITY**

BiCardin softgels supplementation improves ovarian response in women with a poor ovarian reserve in IVF-ICSI pregnancy. It makes higher antral follicle count and more mature follicles. A high dose of CoQ10 is recommended for pre-treatment in women for pregnancy. BiCardin softgels improves ovarian response to stimulation and some embryological parameters. Female fertility decreases with age due to a decline in the number and quality of available eggs. CoQ10 is directly involved in this process. As you age, CoQ10 production slows, making the body less effective at protecting the eggs from oxidative damage. CoQ10 seems to help in age-related decline in egg quality and quantity. Similarly, male sperm is susceptible to oxidative damage, which may result in reduced sperm count, poor sperm quality, and infertility. CoQ10 may improve sperm quality, activity, and concentration by increasing antioxidant protection.

#### **CANCERS:**

Some research suggests that oxidative stress could be involved in the development of cancer. CoQ10 could prevent oxidative stress, support immune function, and block the growth of cancer cells. Some studies suggest low levels of CoQ10 may be associated with a higher risk of certain types of cancer including breast, lung cancer and prostate cancer. Higher intake of Vitamin D<sub>3</sub> and Calcium may be associated with lower risk of pre-menopausal breast cancer. Vitamin D<sub>3</sub> may have this anti-cancerous effect by modulating anti proliferative and pro-differentiating ability of human cells expressing Vitamin D<sub>3</sub> receptor (VDR).

#### **DIABETES HEALTH:**

Oxidative stress can induce cell damage. This can result in metabolic diseases like diabetes. CoQ10 has been suggested to improve insulin sensitivity and regulate blood sugar levels. Studies have showed that CoQ10 could reduce fasting blood sugar and hemoglobin A1c (HbA1c). Vitamin D<sub>3</sub> supplementation helps increase the body's sensitivity to the blood sugar-regulating hormone, insulin, thus reducing the risk of diabetes. Vitamin D<sub>3</sub> stimulates insulin secretion by direct action on pancreatic beta cells and indirectly by normalizing calcium levels extracellularly.

#### **REPRODUCTIVE HEALTH:**

Female fertility decreases with age due to a decline in the number and quality of available eggs. Supplementing with CoQ10 seems to help and may even reverse this age-related decline in egg quality and quantity. Similarly, male sperm is susceptible to oxidative damage, which may result in reduced sperm count, poor sperm quality, and infertility. Several studies have concluded that supplementing with CoQ10 may improve all these factors. Vitamin D<sub>3</sub> has an effect on increased sperm survival, thus playing an important role in the extra testicular maturation of sperm by influencing capacitation and might modulate sperm survival. According to medical news today, Vitamin D<sub>3</sub> also helps in boosting sexual drive.

#### **EXERCISE PERFORMANCE:**

Oxidative stress can affect muscle function and exercise performance. Similarly, the abnormal mitochondrial function can reduce muscle energy. CoQ10 may help exercise performance by decreasing oxidative stress in the cells and improving mitochondrial function. Moreover, supplementing with CoQ10 may help reduce fatigue, which could also potentially improve exercise performance.

#### **HEADACHES:**

Abnormal mitochondrial function can lead to increased calcium uptake by the cells, the excessive production of free radicals, and decreased antioxidant protection. This can result in low energy in the brain cells and may contribute to migraine. Since CoQ10 lives mainly in the mitochondria of the cells.

CoQ10 may effectively reduce the duration and frequency of migraine in children and adults. Another small study of 80 people found that people taking 100 milligrams (mg) of CoQ10 daily experienced a significant reduction in the frequency, severity, and duration of migraine, with no adverse / side effects reported.

#### **REDUCES FREE RADICAL DAMAGE**

As both a water- and fat-soluble antioxidant, CoQ10 has been found to inhibit lipid peroxidation, which occurs when cell membranes and low-density lipoproteins are exposed to oxidizing conditions that enter from outside the body. In fact, when LDL is oxidized, CoQ10 is one of the first antioxidants used to help offset the effects. Within mitochondria, coenzyme Q10 has been found to protect membrane proteins and DNA from the oxidative damage that accompanies lipid peroxidation and neutralize free radicals directly that contribute to nearly all age-related diseases, heart disease, cancer, diabetes, neurological disease, etc.

#### **PROTECT COGNITIVE HEALTH**

CoQ10 has been shown to offset decreases in activity of mitochondrial electron transport chains that affect nerve channels and brain function, and studies show that people with cognitive disorders tend to have reduced levels of CoQ10 in their blood. Regarding the most well-known neurodegenerative disease, Alzheimer's disease, there have been little to no human trials conducted using CoQ10.

#### **DOSAGE:**

One to two softgel(s) daily or as directed by a qualified healthcare practitioner.

#### **PRECAUTIONS:**

Protect from heat, light and moisture. Store at room temperature. Refrigeration is recommended in hot climates. Keep out of reach of children. Sealed for your protection. Do not use if the seal under the cap of the jar is missing or tempered. Shake jar before opening.

خوراک: ایک سے دو سافٹ جیلز روزانہ یا مستند معالج کی ہدایت کے مطابق استعمال کریں۔

احتیاط: دھوپ، نمی اور گرمی سے دور رکھیں اور گرمی سے دور رکھیں۔ گرم موسم میں ریفریجریٹر میں محفوظ کریں۔ بچوں کی پہنچ سے دور رکھیں۔ آپ کی حفاظت کے پیش نظر اس جار کو سیل کیا گیا ہے۔ اگر جار کی کیپ کے نیچے سیل موجود نہ ہو یا خراب ہو تو استعمال نہ کریں۔ جار کو کھولنے سے پہلے ہلائیں۔



Scotmann Pharmaceuticals  
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"Nutraceutical - Not for treatment of any disease"  
SRO 412 (1) / 2014 Enlisted Product