

Nutritional Support for Statin Therapy

Developed and reviewed by the clinical, chiropractic, and naturopathic members of the Standard Process team

How Statin Medications Impact Nutrient Status

Statin therapy is widely used to manage hypercholesterolemia and reduce the risk of cardiovascular disease. Statins act by competitively inhibiting HMG-CoA reductase, the key regulatory enzyme in the mevalonate pathway—a critical metabolic process that produces cholesterol along with other essential compounds. While this inhibition effectively lowers cholesterol, it can also disrupt the synthesis of several important nutrients and cofactors, leading to unintended consequences from a nutritional perspective.

Because cholesterol is the precursor to sex steroid hormones (such as estrogen, progesterone, and testosterone) and vitamin D, statin therapy can influence endocrine balance and vitamin D status. Beyond cholesterol, the mevalonate pathway generates several other compounds critical to human physiology. Statin-induced inhibition of this pathway can reduce the production of coenzyme Q10 (ubiquinone), a vital component of mitochondrial energy metabolism and antioxidant defense. This depletion contributes to statin-associated muscle symptoms such as fatigue, weakness, and myalgia.

Thus, while the therapeutic focus of statins is cholesterol reduction, their broad influence on the mevalonate pathway can compromise multiple essential nutrients, hormones, and biochemical functions. Dietary and lifestyle strategies can help mitigate these nutrient depletions and modulate the downstream physiological consequences of statin therapy.

Supportive Lifestyle Practices

- Encourage regular aerobic exercise and resistance training to support mitochondrial health and function in patients taking statins. These activities stimulate PGC-1 α , a key regulator of mitochondrial biogenesis and mitophagy, leading to more resilient and efficient mitochondria. Regular physical activity supports muscular health and energy production by increasing mitochondrial density and function.¹

- Patients on statin therapy should aim to get regular midday sunlight exposure to support vitamin D synthesis independent of dietary cholesterol supply.² Light therapy may be a helpful adjunct for patients in northern latitudes.

Whole Foods Nutritional Recommendations

- Recommend foods rich in CoQ10, like organ meats and fatty fish for patients on statin therapy. CoQ10 supports cellular energy metabolism and mitochondrial health. It has antioxidant properties that protect cells from free radicals and support efficient energy generation in muscle tissue.³
- Encourage the intake of vitamin D–rich foods such as fatty fish and egg yolks. Vitamin D deficiency has been associated with an increased risk of statin-associated myopathy.⁴ It plays a critical role in calcium absorption and muscle function, making it particularly important for patients on statin therapy.
- Encourage the intake of foods like fatty fish, liver, egg yolks, and nuts and seeds rich in essential fatty acids and fat-soluble nutrients. Statins may lower omega-3 fatty acid levels by altering lipoprotein transport and metabolism.⁵ By reducing cholesterol and modifying bile acid metabolism, they can also impair the absorption of fat-soluble vitamins A, E, and K. Vitamin E may decline in parallel with CoQ10, as both are lipid-soluble antioxidants transported in LDL particles.⁶
- Encourage selenium-rich foods such as Brazil nuts, oysters, tuna, liver, beef, and turkey for patients on statin therapy. Selenium is required to synthesize selenoproteins, which support thyroid hormone metabolism, reproduction, immune function, and neuronal development. The impact of statins on the mevalonate pathway and CoQ10 may impair selenoprotein function, making optimal selenium intake especially important.⁷

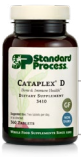
Dietary Supplement Regimen



B Vitality with CoQ10

Suggested Use: **3 capsules per day**

B Vitality with CoQ10, is a cellular health supplement containing coenzyme Q10 (CoQ10) to help protect cells from free radicals.*



Cataplex D

Suggested Use: **2 tablets daily**

Cataplex D provides 40 mcg (1,600 IU) of vitamin D that supports the immune system, bone health, and mineral absorption.*

- Excellent source of antioxidant vitamin A



Cataplex E₂

Suggested Use: **2 tablets per meal**

Cataplex E2 contains vitamin E and selenium, which play key roles in the regulation of biological processes essential for cardiovascular health.*



Olprima EPA/DHA

Suggested Use: **2 softgels per day**

- Through a 55:45 ratio of omega-3s EPA and DHA, Olprima EPA/DHA supports cardiovascular and brain health while supporting the body's healthy inflammatory response.*

Assessing Nutritional Needs During Statin Therapy

In Office/Physical Exam

- Signs and symptoms such as fatigue, brain fog, low mood, dry skin, brittle hair and nails, poor wound healing, exercise intolerance, muscle weakness, pain, or cramping
- Lab testing: CoQ10, 25-OH vitamin D, complete blood count, comprehensive metabolic panel, hormone panel, thyroid panel, Omega 3 Index Plus Test
- DEXA bone density scan

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