

**Please Take One!**



## **SUPPLEMENT OF THE MONTH: Vitamin D**

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### **What is Vitamin D?**

Vitamin D is a fat-soluble vitamin that helps your body absorb calcium and phosphorus, both very important for bone health. The active form of Vitamin D is called D3 or 1,25-dihydroxycholecalciferol. Optimal blood levels are 30-100 ng/mL.

### **Where is it found?**

Vitamin D has many dietary sources including fatty fish (salmon, mackerel, sardines, tuna), fish liver oils, liver, fortified milk, fortified orange juice, egg yolks, edible mushrooms, irradiated mushrooms (with UVB light), and some brands of yogurt and ready-to-eat cereals. Besides these sources, the body can also manufacture its own Vitamin D through sunlight exposure. Ten to 15 minutes of exposure 2-3 times per week is adequate to obtain the needed UVB ray. It is harder to absorb Vitamin D from the skin as we get older because the body is less efficient.

### **What are the benefits?**

Intake of Vitamin D is used to improve balance, increase muscle strength, prevent falls, reduce the risk of bone fractures, and improve osteoporosis and osteomalacia. It has been shown to play a role in immunity, inflammation, and may impact the performance and training of athletes. Research also suggests that Vitamin D prevents the development of chronic and autoimmune diseases – such as hypertension, diabetes, cardiovascular disease, rheumatoid arthritis, osteoarthritis, MS and certain cancers.

### **Are there interactions with medications?**

Some drugs can deplete Vitamin D levels in the body and may require Vitamin D supplementation. These drugs include carbamazepine, cholestyramine, colestipol, corticosteroids, mineral oil, orlistat, phenobarbital, phenytoin, rifampin, stimulant laxatives, and sunscreens. However, high Vitamin D intake can also adversely impact certain medications and combination with the following drugs should be monitored: aluminum, atorvastatin, calcipotriene, cimetidine, cytochrome P450 3A4 enzymes, digoxin, diltiazem, heparin, thiazide diuretics, and verapamil.

Some of the signs and symptoms of a Vitamin D deficiency are bone pain, muscle weakness and discomfort, decreased bone density and risk for bone fractures, and hyperparathyroidism. Side effects from overdosing on Vitamin D are nausea, vomiting, poor appetite, constipation, weakness, fatigue, and weight loss.