



Premium D₁₀₀₀TM

Vitamin D is increasingly being recognized for its importance in preventing and combating a broad range of diseases and health conditions. An extensive list of documented benefits associated with vitamin D is provided on the opposite page. Known as the 'the sunshine vitamin', studies indicate that one hour's sun exposure can provide a RDA of vitamin D. Yet, due to Canada's northern latitude, even during the summer months, 'sun-induced' vitamin D received may be inadequate. Other factors such as sunscreen use, age, obesity, diet and lifestyle can further diminish the beneficial effects of sun exposure.

A Need for Vitamin D Supplementation

Therefore, it is not sufficient to rely solely on the sun to provide all the vitamin D the body requires, particularly as one grows older. This leads to the need for supplementation. Yet, traditional forms of vitamin D (USP isolates) may not be provided in an adequate form to satisfy vitamin D requirements. The body poorly metabolizes standard USP isolates vitamin D as the essential metabolites necessary for assimilation are missing. This is generally why, despite taking vitamin D supplementation (even at mega doses), many individuals still show signs of vitamin D deficiency in a host of disease processes.

The Advantages of Food Nutrient Vitamin D

Unlike standard USP vitamin D, Food Nutrient vitamin D has the metabolites (e.g. carbohydrates, proteins, enzymes, amino acids and nutrient co-factors) in place, making it a sensible means of ensuring a satisfactory intake of a sufficient potency of this important vitamin. A further advantage of any Food Nutrient is that it does not contribute to a toxic build up. The table on this page compares the components present in food, Food Nutrients, chelated amino acids and USP isolates. This table illustrates why there is such a measurable and significant difference between nutrient delivery by means of metabolites in Food Nutrient vitamin D and its similarity to food.



How Much Vitamin D is Warranted?

Health Canada currently considers 2,000 IU per day to be the upper safe level for vitamin D, yet this dosage can be varied 'as recommended by a health practitioner'. For many chronic conditions, doctors are now prescribing significantly larger daily doses of vitamin D. (Note: all minimum and maximum dosage calculations are based on using the traditional isolated (USP) form of the vitamin.) Yet, clinical work and testimonials show that when Food Nutrient vitamin D is used, bioavailability and efficacy is significantly increased. For instance, in a hospital setting in Great Britain, doctors report better effects from prescribing 500 - 600 IU daily of Grow's Food Nutrient vitamin D than from administering 3000 IU of traditional (USP) vitamin D to their patients. This evidence suggests that Food Nutrient vitamin D is in a class all its own in terms of efficacy and bioavailability.

Summary

Increasing studies are showing that ensuring an adequate supply of vitamin D is essential to long term health and vitality. Since the sun can not be relied on as the sole source of vitamin D, vitamin D supplementation has an important role to play. Recognizing the shortfalls of relying on supplementation by means of conventional (USP) vitamin D (which lacks the required metabolites to permit proper assimilation by the body), Food Nutrient vitamin D represents a desirable and effective alternative. Resembling food, Food Nutrient vitamin D in its complete nutrient form, is non-toxic and can ensure ready absorption by the body over a longer period at reduced doses.

Premium D₁₀₀₀TM delivers exceptionally greater potency and effectiveness than conventional vitamin D supplements.

Medicinal Ingredients:

Vitamin D (vitamin D3, cholecalciferol) 1000 IU..... 25 µg

Recommended Dosage (adult): Take one tablet a day or as directed by a healthcare practitioner.

Components of Food (Amounts & types will vary between foods)	Food	Food Nutrient	Amino Acid Chelates	USP Isolates
Natural Carbohydrates	✓	✓		
Natural Proteins	✓	✓		
Natural Enzymes	✓	✓		
Natural Fats	✓	✓		
Glyco-proteins	✓	✓		
Lipo-proteins	✓	✓		
Nutrients	✓	✓	✓	✓
Amino Acids	✓	✓	✓	
Nutrient co-factors	✓	✓		

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Benefits of Vitamin D

Presented below is an extensive list of health benefits associated with receiving an adequate daily supply of vitamin D. Each of these benefit claims has been documented and is supported by references.

Aging and Life Extension

- Maintaining proper vitamin D levels can delay the onset of the aging process - serum vitamin D levels decline by up to 50% with the aging process.

Cardiovascular System

- Vitamin D helps to prevent atherosclerosis (by stimulating the deposition of calcium in bones instead of in the arteries).
- Vitamin D assists in lowering elevated blood pressure in hypertension patients and in preventing heart attack and stroke.

Digestive System

- Vitamin D deficiency is common in celiac disease and Crohn's disease patients. Supplemental vitamin D may alleviate these disease symptoms.

Immune System Ailments

- Vitamin D helps to prevent autoimmune diseases.
- Vitamin D can be beneficial in preventing some forms of cancer and may be used for the treatment of some types of cancer.
- Vitamin D (vitamin D3 form) may stimulate the apoptosis (programmed cell death) of some types of cancer cells (especially breast cancer cells).
- Vitamin D has been shown to prevent and treat cervical cancer.
- Colon cancer may occur as a result of vitamin D deficiency (people with the lowest serum vitamin D levels have four to five times greater risk of developing colon cancer compared to people with the highest serum vitamin D levels).
- Vitamin D3 may assist in preventing several other forms of cancer including of the liver, kidney, pancreas, lungs, prostate, skin, thyroid, lymphatic system and some forms of leukemia.

Immune System: Underlying Mechanisms

- Vitamin D may enhance some functions of the immune system, including stimulating (activating) NK lymphocytes in people who exhibit depressed levels of NK lymphocyte activity and enhancing the function of suppressor T-Cells.
- Vitamin D can act to kill mycobacterium tuberculosis.

Metabolism

- Vitamin D is a potent fat-soluble antioxidant.
- Vitamin D can help lower elevated blood sugar levels.
- Vitamin D deficiency may increase the risk of diabetes mellitus type 2 and vitamin D can help lower elevated blood sugar levels in diabetes mellitus type 2 patients.
- Vitamin D helps to prevent obesity (by lowering the secretion of leptin).
- Fatigue may occur as a result of vitamin D deficiency.
- Thyroiditis may occur as a result of vitamin D deficiency.

Musculoskeletal System

- Vitamin D deficiency has been linked as an underlying cause in some cases of chronic lower backache.
- Vitamin D is needed for optimal function and production of cartilage.
- Many fibromyalgia patients have abnormally low vitamin D levels (indicating that restoring vitamin D levels to normal in these patients may be beneficial for the treatment of fibromyalgia).
- Muscle pain and muscle weakness can occur as a result of vitamin D deficiency and vitamin D can foster increased muscle strength in elderly persons and prevent falls caused by muscle weakness in the elderly.
- Vitamin D may accelerate the healing of fractures.
- Vitamin D can contribute to preventing Osteoarthritis. People with the highest intake of vitamin D throughout their lives have the lowest incidence of Osteoarthritis.
- Rheumatoid arthritis may occur as a result of vitamin D deficiency.

Nervous System

- Vitamin D may help to prevent Alzheimer's disease.
- Depression, in some cases, may occur as a result of vitamin D deficiency.
- Vitamin D may reduce the frequency of seizures in epilepsy patients.
- Vitamin D deficiency (especially during puberty) may be a contributing factor in multiple sclerosis (MS) and supplemental vitamin D can help to improve the condition of MS patients.
- Musculoskeletal pain may occur as a result of vitamin D deficiency.

Oral Health

- Vitamin D may help to prevent gingivitis.
- Vitamin D can aid in preventing tooth decay and can help to prevent a loss of teeth.

Respiratory System

- Vitamin D may improve the function of the lungs and assist in alleviating asthma.

Sexual System

- Female Infertility may occur as a result of vitamin D deficiency.
- Women have a greater requirement for vitamin D during pregnancy. Vitamin D deficiency during pregnancy may result in numerous health problems in offspring. Children born to mothers with inadequate vitamin D status during pregnancy may have an increased risk of: low birth weight, impaired teeth development, impaired bone development, diabetes insipidus type 1, multiple sclerosis and manic depression.
- Vitamin D may help to prevent prostatitis and vaginal atrophy.

Other Benefits

Vitamin D has also been shown to be beneficial for hair, skin, ears and hearing.

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