



## SUNNY DAYS AHEAD

### A Dose of Vitamin D for Optimum Health

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**V**itamin D is quite the hot topic lately. Medical news is filled with the latest research on vitamin D and the major role it plays in our health. Vitamin D, also called calciferol, is a fat-soluble vitamin primarily found in animal fat. Unlike other vitamins that must be obtained through diet or supplements, vitamin D is made in the body when sunlight comes in contact with the skin.

Vitamin D is vital for growth and development of bones and teeth as well as the proper absorption and utilization of calcium and phosphorus necessary for skeletal health. It also plays a role in maintaining the liver, kidney and thyroid gland. Without adequate amounts of vitamin D, rickets can develop in children causing bone deformities. In adults, deficiency leads to reduced bone density, osteoporosis, and an increased risk of bone fracture.

The "sunshine vitamin" may also guard us against a host of diseases, including heart disease, multiple sclerosis, and cancers of the breast, prostate, and colon. What's more, sunlight has other hid-

den benefits, like protecting against depression, insomnia, and an overactive immune system. In excess, however, vitamin D can increase your risk of kidney stones and cause hypocalcaemia (excess calcium in the blood).

The current adult recommendations for vitamin D range from 200-600 IU depending on age, and to prevent cancers approximately 1000 IU are recommended.<sup>1</sup> Humans make 90 percent of their vitamin D naturally from sunlight – specifically, from ultraviolet B exposure to the skin, which naturally initiates the conversion of cholesterol in the skin to vitamin D3.

Few foods naturally contain or are fortified with supplemental vitamin D. For example, an 8-ounce glass of whole milk is fortified with 100 IU (international units) of vitamin D – just 10 percent of what the most conservative vitamin D researchers now say we need daily. In contrast, sun exposure to the skin makes thousands of units of vitamin D naturally in a relatively short period of time.

While vitamin D supplements are an alternative means of producing vitamin D when regular, non-burning sun exposure is not possible, oral supplementation of vitamin D is not nature's intended means of producing this vitamin.

While overexposure to sunlight carries risks, no research has shown that regular, non-burning exposure to UV light poses a significant risk of skin damage. Humans spend less time in the sun today than at any point in history – which is why it is estimated that more than one billion people worldwide are vitamin D deficient.

Sunlight is the best and only natural source of vitamin D. Unlike dietary or supplementary vitamin D, when you get your 'D' from sunshine your body takes what it needs, and de-metabolizes any extra. That's critical, as vitamin D experts and many health groups now advocate 1,000 to 2,000 IU of vitamin D daily—five to ten times the old recommendations. Because too much 'D' from dietary supplements may cause the body to over-process calcium, nobody really knows for sure how much supplementary vitamin D is safe. On the other hand, sunlight-induced vitamin D doesn't have that problem – it's the way your body is intended to make it!

#### Vitamin D Quantities 2

Sunlight Exposure (full body exposure) 3,000 - 20,000 IU\*

Salmon (3.5 oz. of fresh, wild salmon) 600 - 1,000 IU

Salmon (3.5 oz. of fresh, farmed salmon) \100 - 250 IU

Fortified Whole Milk, 8-oz. glass - 100 IU\*\*

Fortified Multi-vitamin 400 IU

\* Sun exposure to the arms and legs for 10-15 minutes. The amount of vitamin D produced depends on the intensity of the UVB in the sun and many other factors. Darker-skinned individuals may need 5-10 times

more exposure than a fair-skinned person to make the same amount of vitamin D. In northern climates sunlight is too weak at certain times of the year to make any vitamin D – a period referred to as "Vitamin D Winter."

\*\* Vitamin D is supplemented into milk.

So is the sun our friend or foe? What shall we do? According to Min-Wei Christine Lee, MD, MPH, a board-certified dermatologist and director of The East Bay Laser and Skin Care Center in Walnut Creek, California, a little UV exposure can go a long way. Follow these rules to stay safe while you're getting some sun.

- Time it right: If you have a fair complexion, you'll need just 5 to 10 minutes of sunshine on your arms, legs, or back – without sunscreen (yes, it shuts down the production of D) – between 10 a.m. and 3 p.m. three days a week, Dr. Lee advises. Women who have medium skin tones may need 15 to 20 minutes of exposure, and darker-skinned women may need up to 30 minutes. And remember: Do use a sunscreen with SPF 30 or higher on your face and wear a wide-brimmed hat, especially if you're going to be outside for any length of time.

- Multitask: Get your vitamin D while running your errands – walking in and out of stores, driving with the window down on sunny days, working in your garden, or walking your dog.

- Be extra careful: If you have had skin cancer or have a family history of the disease, ask your doctor for recommendations tailored to you. Sun exposure may be a health risk.

- Try to incorporate into your diet foods rich in vitamin D. Eggs, liver, and milk are considered the best vitamin D rich foods. Fishes like mackerel, salmon, and sardines contain a high amount of vitamin D. Cod liver oil, halibut liver oil, and shark liver oil are also good source of vitamin D. Other foods rich in vitamin D include cheese, yogurt, ice cream, and margarine. Although milk is rich in vitamin D, other dairy products contain a low amount of vitamin D. Some breakfast cereals such as corn flakes are also fortified with vitamin D. Dark leafy vegetables and potatoes contain vitamin D in smaller amounts.

So enjoy the summer sunshine, wear your sunscreen on your face and allow your body to take in some of the natural vitamin D that is there for the taking.

**IMAGE**

<sup>1</sup> <http://ods.od.nih.gov/factsheets/vitaminD.asp>

<sup>2</sup> Holick, MF. Vitamin D