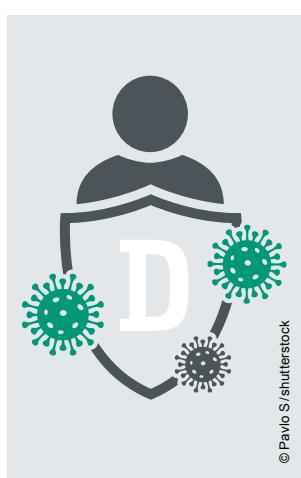


A multi-talent with associated myths

We need vitamin D above all for strong bones. In addition, it has been purported to protect against numerous diseases. What does science say? And what is important to consider?



Does vitamin D provide protection against coronavirus?

There is some evidence that insufficient vitamin D serum levels are associated with an increased risk of acute respiratory infections. However, the data for COVID-19, also a respiratory tract infection, are currently unclear. It has not yet been possible to demonstrate that individuals with a good supply of vitamin D are better protected against infection from coronavirus by taking additional vitamin D. In the view of the BfR, a general recommendation to use vitamin D supplements with the aim of preventing a SARS-CoV-2 infection or severe progression of COVID-19 can therefore not currently be substantiated. Individuals who nevertheless wish to supplement vitamin D as a precautionary measure can take 20 micrograms per day.

More information:
BfR Communication No. 015/2021 of 14 May 2021

When the days become shorter and winter draws nearer, a quite specific micronutrient comes into focus: vitamin D. This so-called ‘sunshine vitamin’ occupies a special position among vitamins, because the body can produce it itself when the skin is exposed to sunlight. Intake of vitamin D via food is generally low because vitamin D is present in only a few foods. It is found in significant amounts for example in oily salt-water fish, eggs and mushrooms. Like all vitamins, vitamin D is involved in many central metabolic processes, and is therefore a vital multi-talent for humans. Among other things, it regulates calcium and phosphate metabolism and makes teeth and bones stronger. It also strengthens muscles and supports a well-functioning immune system.

On everyone's lips

Food supplements containing vitamins are among the most frequently consumed nutritional supplements in Germany. During the COVID-19 pandemic, the hype surrounding nutritional supplements, including vitamin D supplements, increased with the fear of contagion. Reports on the internet have claimed that vitamin D could protect against infection by the coronavirus or reduce the severity of progression of COVID-19 (see box). There is also an ongoing discussion concerning a potential association between an insufficient supply of vitamin D and chronic diseases such as cancer, cardiovascular disease and diabetes. This has, however, not been scientifically proven to date.

Boosting the body's own production

The amount of vitamin D that the body produces varies considerably from person to person and depends on numerous factors such as skin type, age and the time of the year. With sufficient sunlight, the body's own production contributes around 80 to 90 per cent of the supply. The Federal Office for Radiation Protection therefore recommends exposing the face, hands and arms to the sun uncovered and without sunscreen two to three times a week. Sunburn, however, should always be avoided. Regular outdoor activities provide one of the best ways to ensure a good vitamin D supply. During the lighter months, the body is able to build up reserves for the winter in fat and muscle tissue.

For whom are vitamin D supplements useful?

Vitamin D supplements may be useful for people who seldom spend time outdoors or who, for example for cultural reasons, do not leave home unless they are fully covered up. Dark-skinned people are also included in this group since the higher content of the skin pigment melanin only allows a comparatively small fraction of UVB radiation to get through. Another risk group includes the elderly, because vitamin D formation decreases significantly with age. Older people also often have chronic diseases and are less mobile, which means


© bong / adobe stock

Why 20 micrograms of Vitamin D?

Both at the national and the European level, there are currently no legally binding maximum quantities for vitamins and minerals in food supplements or added to fortified foods. For about the last two decades, the BfR has been involved in the assessment of health risks of vitamins and minerals, and has developed respective proposals for maximum amounts. These have been calculated such that no adverse health effects are to be expected with the additional amount of nutrients consumed, even if fortified foods are consumed in addition to nutritional supplements. The proposed maximum amounts are intended to serve risk management as a basis for discussion in the context of drawing up legal regulations at the EU level. The BfR's recommendation for adolescents and adults regarding a maximal amount of vitamin D in a nutritional supplement is: 20 micrograms per day

More information:

BfR Opinion No. 009/2021 of 15 March 2021

they may spend less or no time outdoors. Older people living in nursing homes can thus be particularly vulnerable to a vitamin D deficiency. For this group, the German Federal Institute for Risk Assessment (BfR) therefore recommends considering supplementation with a general dose of up to 20 micrograms of vitamin D (800 International Units) per day.

Things to consider

Persons wishing to supplement vitamin D can use food supplements with doses of up to 20 micrograms of vitamin D per day. This applies to adolescents and adults. This amount covers daily needs with no expected adverse health effects. Consumption of higher doses, and very high quantities in particular, should occur under medical supervision only, and taking into account the individual vitamin D status. Self-managed and uncontrolled intake of high-dose vitamin D supplements can be harmful to health. ▀

More information:

www.bfr.bund.de/en > A-Z Index: Vitamin D