

The Sunshine vitamin

Are you getting enough?

Despite living in a sunny climate with an estimated 2,724 hours of sunshine a year, many Azureens are falling short in possibly the most essential nutrient of all.

Vitamin D is fat-soluble vitamin with so many roles, it resembles a hormone. As mentioned in the November/December 2018 edition, Vitamin D is important for supporting immunity but it also regulates the activity of more than 2,700 genes and is required for the function of each body system. This is why deficiency is considered a key factor in many chronic diseases including: cancer, cardiovascular disease, infectious immune disorders, autoimmune disease, cognitive and mood disorders, muscle weakness and repetitive falls/osteoporosis.

Dedicated and lifelong experts around the world estimate that reducing Vitamin D deficiency would reduce the pain and costs affecting millions with chronic diseases.

What is considered deficient?

The measure commonly used to evaluate vitamin D levels* is serum 25-Hydroxyvitamin D (25(OH)D). Globally there is a general consensus that deficiency is defined as anything below 25 nmol/L and insufficiency in the range 25 – 49 nmol/L. However, there is no current agreement upon optimal levels of vitamin D.

Many scientists and functional medicine practitioners believe that 25nmol/L is below levels required for good health and that a minimum should be 75nmol/L. This is because the reference range is set to avoid the diseases osteomalacia and rickets (of which there has been a re-emergence) and that the prevention of many chronic diseases requires far higher serum levels. What is not known is how long levels need to be low before any complications may arise. This is why it makes sense to take vitamin D levels seriously.

Is sunbathing enough?

Most are aware that the main production of vitamin D synthesis comes from absorption from the sun, hence it's nickname the sunshine vitamin. Yet the population smothers themselves with cream (often full of synthetic chemicals) as soon as the sun starts shining. Whilst in southern France it is recommended to use sunscreen to protect skin from over-exposure to UVB rays in order to prevent burning and development of skin cancer, it obstructs the skin's ability to produce vitamin D. A more practical suggestion is to get sun exposure without burning. From April to September, try to go "sans sun cream" for short periods of time (avoiding 11 am - 3 pm when the sun is particularly strong) to enable synthesis of



vitamin D. Time of exposure will depend upon melanin levels in the skin along with levels of smog/pollution which can prevent strength of UVB rays. Light skin may only require 10-15 minutes exposure whilst darker skin may need up to 120 minutes to meet daily requirements for vitamin D.

Whilst statistics show up to 25% of the UK's population with deficiency in the sunshine vitamin, many in the south of France are also falling short of adequate vitamin D. The sunrays are not strong enough or at the right latitude in Cannes (43.55°North) or Nice (43.69°North) to support vitamin D synthesis from October to March. Persons living north of Madrid (40°North) need to be conscious of getting enough Vitamin D throughout the year. Much of the European population rely on dietary vitamin D and body stores to maintain a healthy vitamin D status throughout the year. Another reason for deficiencies is age since vitamin D synthesis in the skin becomes less efficient as we get older.

How to supplement

Vitamin D3 (cholecalciferol) is the form naturally produced in the body when the skin is exposed to UVB rays. Dietary sources are oily fish. Vitamin D2 (ergocalciferol) may be found in mushrooms, but requires conversion from D2 to D3.

Daily intake of both animal and plant sources are best to meet the current dietary reference value (DRV) of 400 IU (or 10 µg) per day. This would be the equivalent of 1 portion of salmon or 20 cups of shitake mushrooms (not a feasible vegan/vegetarian option).

Groups potentially vulnerable to deficiency:

- ▶ Vegans or vegetarians
- ▶ Pregnant and breastfeeding women
- ▶ Breast-fed infants and all children (more indoor screen time)
- ▶ Individuals with dark skin pigmentation or covered for cultural reasons
- ▶ Anyone with digestive issues, such as Inflammatory

Bowel Disease (IBD) or fat malabsorption disorders such as gallbladder removal/dysfunction.

- ▶ Certain medications can deplete vitamin D, including steroids and fat blocking medications for weight loss (e.g. Orlistat).
- ▶ Those aged 65 or more

Magnesium: the helping mineral

Magnesium is required for more than 300 physiological processes that happen all the time and Vitamin D works alongside this important mineral. Unfortunately, many people are also Magnesium deficient. Magnesium has the ability to increase vitamin D levels in those with deficiency and lowers vitamin D if levels become too high (extremely rare). Therefore, a deficiency in magnesium shuts down the ability to produce vitamin D.

Correcting a deficiency or insufficiency can be challenging if relying upon sun exposure and/or diet alone. If you are concerned about your vitamin D levels consult your GP or practitioner who will be able to advise you on further testing.

TIP: Eat fatty fish, mushrooms, plenty of green leafy vegetables, nuts and seeds, and get some careful sun exposure. ▶

CHRISTINE KJELDBJERG



has a BSc in nutritional therapy, an MSc in personalised nutrition and is a Pilates & Xtend Barre instructor. Originally from Berkshire in the UK, Christine has been living in the Riviera for 12 years. She has a busy fitness and health coaching business in Grasse and runs various educational workshops.

www.ck-health.com

*Vitamin D equivalences:

1µg=2.5 nmol, 1µg=40 IU, 1ng/ml=2.5 nmol/l
To convert µg to nmol/L, multiply µg by 2.5.