

ONE SMALL CHANGE

TOP

UP

YOUR

VITAMIN D

Soaking up summer rays is great for getting this important vitamin, but what about the risks of sunburn and skin damage? Nutritionist *Anita Bean* explains how to strike a healthy balance

**V**itamin D – or the sunshine vitamin, as it’s often called – is an essential nutrient for all of us. It gets its nickname from the fact that our bodies need exposure to sunlight to make it. For obvious reasons, this is something we tend to think about in darker months, when sunlight is in notoriously short supply in the UK, but new research suggests it should be a year-round consideration. According to Public Health England’s National Diet and Nutrition Survey, one in six of us has low levels of the vitamin in our blood regardless of the time of year.

Why do we need it? Vitamin D is important for keeping bones and muscles healthy, protecting muscle strength and supporting healthy immunity. A deficiency can lead to bone problems such as rickets (which causes bowed legs) in children, and muscle weakness and painful or tender bones in adults. Conversely, the benefits of getting enough vitamin D are wide ranging, from a lower incidence of depression and certain cancers to the decreased severity of Covid-19 symptoms.

It’s also worth noting that a study published by the Alzheimer’s Association suggests vitamin D sufficiency may lower your risk of dementia, especially if you are older and female. When researchers analysed data from more than 12,000 people with an average age of 71, they discovered that women who had taken a daily vitamin D supplement were 50% less likely to develop dementia over 10 years than those who had not.

Unlike other vitamins, for which the main intake is through food, around 90% of our vitamin D comes from the action of sunlight (specifically UVB light) on our skin – the same UV light that causes skin to burn. Fortunately, it doesn’t take

much sun exposure for the body to produce vitamin D. A study published in the journal *Nutrients* estimates that, for white-skinned people, exposing about one-third of the skin area (equivalent to face, hands, forearms and lower legs)

unprotected for just nine minutes a day from March to September will provide adequate levels. Darker skin tones are likely to need more time – up to 25 minutes.

Interestingly, getting more sun doesn’t mean you’ll get more vitamin D. Instead, it puts you at risk for ageing and skin cancer,

which is why the British Association of Dermatologists advises using a sunscreen with SPF 30 or higher. The question then is whether using sunscreen all the time can stop the body from making vitamin D and potentially cause a deficiency?

To answer this question, researchers from King’s College London divided participants based in Poland into four groups. Three of the groups went on a week-long holiday to sunny Tenerife. The first group of 20 participants received a broad-spectrum sunscreen (SPF 15) providing a balance of UVA and UVB protection. (‘Broad spectrum’ means the sunscreen protects against both UVA and UVB light.) UVB rays cause sunburn and skin cancer, while UVA rays are the ones that prematurely age your skin. (Incidentally, SPF only indicates protection against UVB, so a sunscreen not labelled broad spectrum may not offer UVA protection.) The second group of 20 »

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## VITAMIN D RICH FOODS

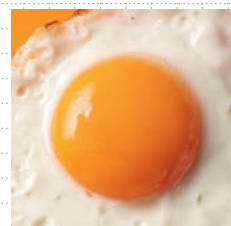
*The government recommends we get 10 micrograms (µg) of vitamin D a day. It is hard to get it all from food, but these are some of the best sources.*



100g salmon, grilled, 10µg

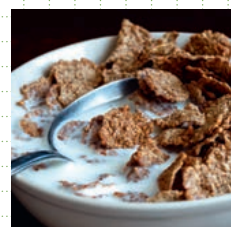
100g tinned sardines, in olive oil, 3.6µg

100g mackerel, canned in brine, 7.4µg



One egg, 1.6µg

200ml plant-based alternatives to milk and yogurt (soya, almond, oat, coconut, etc), 1.5µg



30g Essential Wholegrain Bran Flakes, 11µg

100g vitamin D-enriched mushrooms, 5µg



10g Essential Olive Spread, 0.75µg



## GROWING PROTECTION

Mushrooms exposed to UV light can make vitamin D, much like human skin. Look for ‘vitamin D-enriched’ on the label, or buy regular mushrooms (any variety) and leave them in a sunny spot for up to 60 minutes between the hours of 10am and 3pm during spring and summer months.

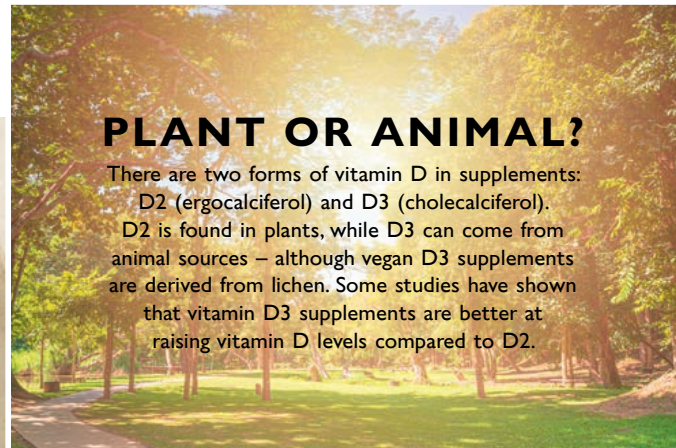
individuals received a non-broad-spectrum sunscreen, which also had an SPF 15, but offered low UVA protection. The third group comprised 22 participants who used their own sunscreen with no instructions on how to apply it. The fourth group, the control group, remained in Poland.

The participants in the first two groups had their blood tested 24 hours before and 48 hours after they returned from Tenerife. The study found that SPF 15 sunscreens applied at sufficient thickness to prevent sunburn allowed a ‘highly significant’ improvement in vitamin D levels. “Data from this study and others suggests that using sunscreen

will not impact vitamin D synthesis,” confirms consultant dermatologist Dr Anjali Mahto. “In real life, people apply less sunscreen than the amount [this study] tested at. So, it is likely that standard sunscreen use, even at a higher factor such as SPF 50, is unlikely to compromise vitamin D synthesis.”

## PLANT OR ANIMAL?

There are two forms of vitamin D in supplements: D2 (ergocalciferol) and D3 (cholecalciferol). D2 is found in plants, while D3 can come from animal sources – although vegan D3 supplements are derived from lichen. Some studies have shown that vitamin D3 supplements are better at raising vitamin D levels compared to D2.



Apart from sun exposure, diet is the other means of getting your vitamin D. You can find it in fresh or tinned oily fish (such as salmon or sardines), egg yolks and mushrooms exposed to UV light (see ‘Growing Protection’, left). The vitamin is also added to certain fortified breakfast cereals, plant-based dairy alternatives and vegetable spreads.

In addition to a healthy diet, the government recommends a daily supplement containing 10 micrograms (µg) of vitamin D during the autumn and winter months. “If you have a darker skin tone or don’t get much sun, then year-round supplementation is recommended,” says consultant dermatologist and nutritionist Dr Thivi Maruthappu. “It is simple and inexpensive.”

If you take steps to protect your skin – using a ‘high protection’ sunscreen of at least SPF 30 as well as wearing a hat, T-shirt and sunglasses, and seeking the shade between 11am and 3pm – spending time in the sun is a great way to get some extra vitamin D. And rest assured: sun protection does not prevent your body from making this vital nutrient. Away from the sunlight, try adding vitamin D-rich foods to your diet and taking a daily vitamin D supplement.

*Anita Bean is a registered nutritionist. She has worked with the London Marathon and is the author of The Vegan Athlete’s Cookbook and The Runner’s Cookbook.*

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PHOTOGRAPH KIM LIGHTBODY FOOD STYLING TAMARA VOS STYLING RACHEL VERE