

Health

Vitamin D: How to safely get this essential nutrient

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[Your body makes vitamin D through sunlight, and it's essential to bone strength and muscle function.](#) (Pixabay)

As we enter the cooler months and the days shorten, it's no longer quite so easy to soak up the sun's rays. That typically means a drop in the level of vitamin D in your body.

So, should you worry if you're not getting as much sunlight as you did over summer?

What is vitamin D?

A vitamin, by definition, is something that we get in small amounts from the food we eat. But vitamin D a bit different.

It's a vitamin — in the sense that we can get it in small amounts from food — but our main source of vitamin D is actually through the synthesis of it in our skin.

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To add to that, it's also sometimes called a pre-hormone — because it's converted to a hormone in the kidneys and acts to regulate part of the body's function, like a hormone does.

Vitamin D's identity crisis aside, this molecule is important for its role in enhancing the small intestine's ability to absorb calcium from our food, which is vital for bone strength. It also plays a role in keeping our muscles functioning.



It ain't just slip slop slap.

Low levels of Vitamin D can cause:

- Rickets — a childhood disease in which the bones soften and can become deformed. In adults, the condition is called osteomalacia.
- Osteoporosis — thinning of the bones. Osteoporosis is a major risk factor for hip fractures, especially in the elderly.
- There's also some evidence that low levels of vitamin D predispose to some cancers — especially cancer of the breast, colon and prostate.

Where can we get it?

A number of foods contain vitamin D — among them fish, eggs, mushrooms that have been exposed to UV, and margarine (it's mandatory in Australia to add vitamin D to margarine).

But these foods aren't nearly enough to give us adequate vitamin D, according to the experts.

"In Australia, it's actually very hard to get more than about 5 or 10 per cent from most food, because we don't have fortification — added vitamin D — to many things, unlike the Americans," said Professor Rebecca Mason, a vitamin D expert from the University of Sydney's Bosch Institute.

Our main source of vitamin D is from the sun. The interaction of Ultraviolet B (UVB) rays from the sun with a steroid in our skin produces vitamin D.

How much do we need?

Health authorities around the world differ on how much vitamin D we need. According to the Australian-New Zealand guidelines, we should have a blood level of vitamin D of at least 50 nanomoles per litre.

But since our levels vary over the year, with our exposure to the sun in different seasons, this is really an average figure. Sometimes we will have levels higher or lower than this.

In fact, because your vitamin D can be stored over months, you can "stock up" during the summer — say by getting your levels up to 70 nanomoles per litre — to keep some in reserve for winter, Professor Mason said.

The best parts of the day to get your sun exposure in summer is the mid-morning or mid-afternoon. And you need to spend enough time — but not too much time — in the sun.

When's it safe to soak up the sun?

"For most people with Caucasian-type skin that's in the order of five to 15 minutes," Professor Mason said.

"For people with very fair skin, it's less than that and for people with darker skin, it can be quite a few more minutes than that.

"And that presupposes you've got the equivalent of your arms exposed and you do this most days of the week."

In winter, it depends on where you are in Australia. For those in the north, the advice above remains the same, except that it's better to get out in the sun around noon.

For the southern states, it can be trickier to catch enough rays because you tend to be all covered up — but even going for a brisk stroll with your arms exposed can be of benefit, Professor Mason said.

"The aim should always be to get out there, get a little bit of fresh air, a little bit of sunlight before you start to cover up."

Part of the reason health authorities differ over how much vitamin D they recommend we have is because they must weigh the benefits of sun exposure against the risk of skin cancer.

"A little bit of sunlight is good — too much is undoubtedly bad for you because of the effect on skin cancers, including melanoma, but other cancers as well," Professor Mason said.

Who's at risk of vitamin D deficiency?

A vitamin D level below 20 nanomoles per litre (nmol/L) is generally considered a marked vitamin D deficiency and there are some groups that are more at risk of this.

"Strictly vitamin D deficiency is below 50 nmol/L," Professor Mason said.

Groups at risk include people with very dark skin (they have more melanin, which can soak up UV-B and prevent it being used to make vitamin D), people who cover their bodies for religious or cultural reasons, and older Australians who may not lead active lives and spend most time indoors.

With Australians living increasingly sedentary lives indoors — with long working hours, the shift to service industries (often office-based), the decline in outdoor activities, and the growth in screen-time — there is also some concern vitamin D deficiency is growing in the general population.

Should you take supplements?

Unless you're in one of the at-risk groups outlined above, or have been advised by your doctor that you're deficient, it's probably not needed, Professor Mason said.

For most, just getting out in the sun a little more will boost your vitamin D levels and save you money.

"Why not get the benefit of a bit of exercise at the same time, and if you're overstressed it'll help you clear your head and make you work more efficiently," Professor Mason said.

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