

- Vitamins

Sunscreens not behind vitamin D deficiency

Taupo Times · 29 Jul 2022 · 15

Avoiding sunscreen for an extra hit of vitamin D is unnecessary – and risky.



Sunlight is the best disinfectant, or so the saying goes, but does sunscreen prevent you from getting a healthy dose of it?

The question has been the subject of academic papers and studies stretching back several decades. Some health websites have started telling people they should go out into the sun without sunscreen so that they can get enough vitamin D.

Vitamin D is linked to all kinds of good things that happen in our body, including bone health, so it is easy to see why people are so focused on increasing their exposure to it.

It's also easy to see why they have come to the conclusion that sunscreen might stop us from producing it.

Sunlight produces two different types of ultraviolet rays, ultraviolet A and ultraviolet B rays (UVB). When UVB rays hit our skin cells produce vitamin D.

Ultraviolet rays from sunlight are responsible for the vast majority of vitamin D our bodies create, but the whole point of sunscreen is blocking out those ultraviolet rays.

So, doesn't it stand to reason that wearing sunscreen will reduce the amount of vitamin D our bodies produce?

That would be true if people applied sunscreen in a centimetres-thick layer.

However, repeated scientific studies show that, when people put on sunscreen in the real world, they don't slap on enough of it to make much of a difference to vitamin D levels.

A US study which looked at health survey results from nearly 6000 adults on sunscreen use and vitamin D levels, showed no link between sunscreen use and low vitamin D levels (although few people with darker skin were included in this study, so it's unclear how well the findings apply to that group).

Other studies, like an Australian study of more than 1000 adults in Queensland, found little difference between the levels of vitamin D in people who applied sunscreen and those who didn't.

Researchers put this down to people not applying enough sunscreen, but also to the fact sunscreen doesn't block out all

UVB rays.

Another point to note is we don't need to be exposed to the sun for very long to produce healthy levels of vitamin D – just 5 minutes in the summer or 30 minutes in winter, although this timing is likely to differ if you have darker skin.

In reality, we tend to spend much longer than five minutes in the sun over the summer months, when our risk of sunburn is greatest.

There is little evidence that vitamin D levels are something most light-skinned people should worry about.

About 27% of people have levels of vitamin D below the recommended standard but only 5% of New Zealanders have a real, provable, deficiency of vitamin D.

This does vary by skin tone though – rates of vitamin D deficiency among Pacific people are twice that of the general population.

Because of the way we use sunscreen though, most New Zealanders are unlikely to up their vitamin D intake just by going out into the sun without sunscreen. Wearing sunscreen is unlikely to meaningfully reduce the amount of vitamin D our body produces when kissed by the sun.

But if you go out in the sun without sunscreen you do run the very real risk of contracting skin cancer – which is why many experts say the trade-off just isn't worth it.

For people who are diagnosed with a real deficiency, vitamin D supplement pills are cheap (and available on prescription) and safe.

Reporting disclosure statement: This post was written with expert advice from Waikato Clinical Campus adjunct associate professor Amanda Oakley, University of Auckland Medical School associate professor Mark Bolland, and Dr Mark Foley at Skin Clinic Marlborough.

This story was reviewed by The Whole Truth: Te Māramatanga expert panel member Dr Jason Gurney.