



Why Sunscreen?

Skin cancer is extremely common in NZ. In our own practice we sometimes see people turn up with dozens of skin cancers without being aware of them.

We need to do better at reducing skin cancer rates.

While there are many aspects to sun protection, there is **no substitute** for sunscreen - particularly when it comes to protecting the face from the damaging effects of the sun's UV rays.

These are some common sunscreen myths:

A little sun is safe and good for Vitamin D.



Instinctively this seems reasonable, however, evidence shows this is an incorrect belief.

Reality: There is no safe sun exposure. DNA damage can develop within minutes during summer, and about an hour in winter (Auckland).

You don't need protection for UV levels < 3



Unfortunately, this myth is perpetuated by several organisations and even by the TV weather forecast!

Reality: DNA damage can occur at UV levels under 3, which are common during winter. Estimates suggest that DNA damage occurs after **1 hour** of exposure on a typical Auckland winter's day.

Studies have shown that using sunscreen **every day** results in significantly fewer skin cancers.

Common Misconceptions

Sunscreen is a complex topic because it crosses physics, biochemistry and human behaviour. Many dermatologists believe that government organisations often get advice wrong, contributing to the confusion. As specialist dermatologists, we're required to give **evidence-based** advice. We don't fudge the data, just to make it more appealing.

Sunscreen higher than SPF50+ is a waste of time



Unfortunately, this is perpetuated by new regulations, that prevent manufacturers from labelling their sunscreen higher than SPF50+. We find this abhorrent.

Reality: Multiple studies have demonstrated that SPF100 sunscreen provides better protection resulting in less sunburn and less DNA damage when compared to SPF50 sunscreen.

If I don't get burnt, I haven't done damage



Reality: While sunburn means a lot of damage has been done, DNA damage will still occur without any sunburn. Even a suntan means that damage has been done - tanning is one of the body's protective mechanisms against too much UV exposure.



Vitamin D

Yes, sunscreen does reduce vitamin synthesis by up to 50%. However, it is unlikely to have a significant impact:

- Vitamin D stores typically get saturated during summer, even with sunscreen use.
- Vitamin D deficiency is common during winter regardless of sunscreen use (stores last about 2 months)
- Sunscreen use may slightly slow down the replenishment of vitamin D during spring, however, this is only transient.

Where Vitamin D deficiency is a concern, it is safer to use a supplement. Remember, the sun is a gigantic nuclear reactor emitting radiation.

Notes

What We Recommend

1. Apply sunscreen everyday, at least to the face. Use even during winter & even when you think you going to be indoors. This is to protect against **incidental** sun exposure.
2. Ideally, sunscreen should be applied to all exposed skin during sun exposure - e.g., when at the beach, in the garden etc.
3. Aim for a sunscreen with an SPF of at least 100
4. Take a vitamin D supplement when needed instead of trying to use sunlight
5. Don't just rely on sunscreen. Hats, sunglasses, clothing and shade etc are important too!

This is only a summary. See our web page to:

- Get a more detailed explanation of sunscreen.
- Understand why we think government organisations and regulators get it wrong
- Learn why your protection only amounts to about 1/4 of the SPF rating on the label.
- **Fact-check us!** We list references to research articles.
www.skintel.co.nz/articles/sunscreen