



When the skin tans after being in the sun or after using a solarium, the tan is due to skin damage which increases the risk of developing skin cancer. The once popular, but mistaken, belief that a tan is healthy and attractive has contributed to New Zealand's high rates of skin cancer.

Most New Zealanders know about the dangers of excess ultraviolet radiation (UVR) from the sun, and the need for sun protection between September and April, especially between 10am to 4pm. However, some people continue to intentionally seek a tan even though they know it is dangerous. Young women are particularly likely to think a tan is attractive.<sup>1</sup>

The Cancer Society encourages people to value their natural skin colour rather than wanting a tan. However, for those who still want a cosmetic tan, the use of a fake tan product may be a 'safer' alternative to sunbathing.

If you decide to use a fake tan product, then it is very important to remember that a fake tan does not protect you from the sun's UVR. Research has shown that people who use fake tan products are more likely than non-users to be sunburnt over the summer.<sup>2</sup>

**If you use a fake tan product, you will still need to use sun protection (shade, sunhat, protective clothing, SPF30+ sunscreen and sunglasses) to avoid sunburn and long-term skin damage. While some fake tan products contain sunscreen, they only provide protection for a limited time after being applied. The Cancer Society Self Tan product does not contain sunscreen.**

## What is the difference between fake tan and sunscreen?

Fake tan products and sunscreen are very different:

1. Most fake tan products will not protect against sunburn.

2. A fake tan product is generally applied at night or early in the morning, applying one or more coats to allow the tan to develop, depending on the product. Sunscreen should be applied (thickly and evenly) 15 minutes before going out in the sun, and should be re-applied frequently as long as you remain in the sun.
3. A sunscreen requires several applications throughout the day while a fake tan product may only require one to three applications in a week, not often enough or at the right times to be of any use in terms of sun protection.

## How do fake tan products work?

In recent years more fake tan products have become available, including tanning lotions, instant bronzers and self-spray tan booths. Fake tanning products usually contain Dihydroxyacetone (DHA), a chemical or vegetable dye that temporarily paints the top layer of skin brown. The dye comes off when the dead skin cells flake off usually after five to ten days, depending on the product. DHA is considered to be safe when applied to the skin,<sup>3</sup> but its safety if inhaled or ingested is unknown. Therefore, DHA should not be used around the lips, eyes or nostrils<sup>4</sup> and these areas need to be protected when a spray tan is applied.

Instant bronzing products contain a dye that immediately colours the outer layer of skin on application. Once dry, this dye will remain on the skin until it is washed off by warm, soapy water.

Remember: The tanned colour produced by fake tan products does not give protection from the sun. Even if you use a fake tan product, you still need to use sun protection (seek shade, wear sun-protective clothing, a broad-brimmed hat, SPF30+ sunscreen and sunglasses) if you are outside when the Ultraviolet Index (UVI) level is 3 or above.

## The UVI

The UVI is an international, scientific measure of the level of UVR in the environment. The higher the number, the greater the risk of skin damage.

**The Cancer Society advises sun protection between September and April (especially between 10am and 4pm),** or when the UVI is 3 or higher. Cover up with a hat and protective clothing; wear sunglasses if possible; and use sunscreen on exposed skin.

UVI levels can be found in daily newspaper weather forecasts (during daylight saving months), on the SunSmart website: <http://www.sunsmart.org.nz/uvi> and the NIWA website: <http://www.niwa.co.nz/our-services/online-services/uv-and-ozone/forecasts>

## References

- 1 HSC Research and Evaluation Unit. *Sun Exposure Survey 2010: Topline Time Series Report*. Unpublished report commissioned by the Cancer Society of New Zealand and HSC. September 2010.
- 2 Beckmann, K. R., Kirke, B. A., McCaul, K. A., & Roder, D. M. (2001). Use of fake tanning lotions in the South Australian population. *Medical Journal of Australia*, 174(2), 75-78.
- 3 Draelos, Z. D. (2002). Self-tanning lotions: Are they a healthy way to achieve a tan? *American Journal of Clinical Dermatology*, 3(5), 317-318.
- 4 Fu, J. M., Dusza, S. W., & Halpern, A. C. (2004). Sunless tanning. *Journal of the American Academy of Dermatology*, 50(5), 706-713. Doi: 10.1016/j.jaad.2003.12.006.