

Lesson 3: Risk Factors Transcript

In this lesson, we will discuss the risk factors of living in New Zealand and developing melanoma. The goal is to help you make informed decisions.

Melanoma is closely linked to an individual's UV exposure and we are living under a harsh Antipodean sun. Here's Dr Richard McKenzie from the National Institute of Water and Atmospheric Research explaining our climate and the science behind it.

Dr Richard McKenzie:

The UV intensities are greater in the Southern hemisphere for three main reasons. Firstly, and surprisingly importantly, the Earth orbits the sun in an ellipse, not a circle. The closest point of the sun to the Earth occurs in December to January, which is the Southern hemisphere summer. The furthest away is in June/July, which is the Northern hemisphere summer. That factor alone means the Southern hemisphere summer alone will have seven times more UV radiation than the Northern hemisphere summer.

The second one is ozone. During the summer months, there is a lot less ozone in the Southern hemisphere than in the Northern hemisphere because ozone is generated at the equator. It gets transported to higher latitudes, and that transport is more efficient in the Southern hemisphere. And that factor is about a 10% effect.

The remaining 20% is due to the cleaner air we have here. And so those three factors, which lead to the higher UV radiation intensities here compared with corresponding latitudes in the Northern hemisphere.

New Zealanders have an outdoor lifestyle.

Here's Palm Beach, on Waiheke Island - midday, mid-February. There is only one umbrella, a few hats and hardly any covered torsos.

What is different between us and Australia?

A significant contributing factor to New Zealanders' bad habits is our intermittent weather.

For the most part (and if you don't count Melbourne!) when it's sunny in Australia, it stays sunny....

So, Australians are better at dressing appropriately and preparing to be sun protected.

This is part of their daily routine and New Zealanders could learn a lot from this.

Also, Australia has very good sun smart policies in schools and workplaces.

In Australia, sunscreen is considered a pharmaceutical product, which comes with a whole lot of rules and regulations that provide assurances around the quality of the product.

In New Zealand, sunscreen is marketed as a cosmetic and although some sunscreens in New Zealand still meet industry standards, not all products on our shelves are as good as they should be.

We will discuss this in more detail in a later lesson.

So, who is most at risk of skin cancer? And in particular - melanoma?

If you tend to burn in the sun, you are more at risk than people who don't.

People with type 1 and 2 skin have around 5 times more risk of skin cancer than people with Type 6.

But people with skin types at this end of the spectrum are more likely to get diagnosed with deeper and more aggressive cancers and can have poorer outcomes.

Bob Marley died of metastatic melanoma in his toenail. He was only 36 years old. Metastatic melanoma is melanoma that has spread to other sites of the body.

There are a number of other risk factors.

70% of melanomas occur in the over 50s.

As you get older, the build-up of UV exposure over your lifetime lead to an increased likelihood of melanoma.

If you have had melanoma, you are more likely to get another one.

The more moles you have, the higher risk– most people have around 20-50 moles.

There can be a genetic trait also – so if you have melanoma in your family history, it's a good idea to put regular skin checks as a priority.

But just so you know, melanoma is rare in children.

If you are immune-suppressed, for example with HIV, leukaemia or if you are an organ transplant recipient – you are at higher risk of melanoma.

Some medications make you more sensitive to UV light increasing your risk also, like some antibiotics.

A history of sunburn – especially in your childhood – can lead to melanoma later in life.

Having 5 or more sunburns doubles your risk for melanoma.

Sunbeds expose you to UV radiation and this will be covered in more detail in a later lesson.

Any sunburn increases your risk – and can be caused by reflective surfaces, for example snow and water - even concrete has a reflective component.

In the next lesson, we will cover skin and skin cancers.