Solariums (sunbeds and tanning beds)

Summary

- A solarium tan is not a safe tan.
- Each time you expose your skin to UV radiation, in the sun or in a solarium, you increase your risk of developing skin cancer.
- Over-exposure to UV radiation is the leading cause of skin cancer and premature ageing.
- Tanning in a solarium does not make it safer to tan in the sun.

A solarium is any tanning unit that uses UV radiation to tan the skin. Solariums are also known as sunbeds, sunlamps or tanning beds.

There is no such thing as a safe tan. UV radiation from solariums increases your risk of developing skin cancer. Solariums can also cause eye damage and immediate skin damage, such as sunburn, irritation, redness and swelling. A solarium tan does not provide your skin with sun protection, so your skin is still prone to damage when outdoors, exposed to the sun's natural UV radiation.

Public education campaigns about the dangers of UV radiation from the sun have resulted in large changes in the awareness and knowledge of the risks of skin cancer and over exposure to the sun's UV rays. However, some Australians continue to tan, under the mistaken belief that a tan is healthy.

How UV affects your skin

Skin cells in the top layer of skin (epidermis) produce a pigment called melanin, which gives skin its natural colour. When skin is exposed to UV radiation, more melanin is produced, causing the skin to darken and tan. A tan is a sign that the skin has been damaged from UV radiation. It is not a sign of good health.

Tanning without burning can still cause skin damage, premature skin ageing and skin cancer. UV radiation can cause irreparable DNA damage. Each time you expose your skin to UV radiation from the sun or from a solarium, you increase your risk of developing skin cancer.

Very fair-skinned people have to take extra care in the sun. No amount of sunbaking will result in a tan. Their skin will just burn and become damaged. People who sunburn and never tan in the sun will likewise not tan in a solarium.

Solarium or tanning salon use in Australia

Due to the associated health risks, commercial tanning units have been banned in Victoria since January 2015. This ban is the result of almost a decade of ongoing campaigning led by Cancer Councils and partners. The result of this work is that many Victorians will be saved from the devastating effects that skin cancer has on people and their families.

Prior to the ban, it was estimated that each year in Australia, 281 new melanoma cases, 43 melanoma-related deaths, and 2,572 new cases of squamous cell carcinoma were attributable to solarium use.

Commercial solarium operators are also banned in New South Wales, South Australia, Tasmania, the Australian Capital Territory, Queensland and Western Australia. There are no commercial solariums operating in the Northern Territory.

To report the unlawful use of tanning units being used for commercial purposes, or for further queries regarding solarium legislation in Victoria, contact the Department of Health Radiation Team on 1300 767 469 or email betterhealth.vic.gov.au
A solarium tan is not a safe tan

It is a myth that using a solarium is a safe way to tan and protects your skin from burning in the sun. Solarium tans offer no protection against DNA damage to skin cells, which can occur without any visible signs of skin damage.

Research shows that using a solarium increases your risk of skin cancer and contributes to premature ageing of the skin. People who use a solarium have a 20 per cent greater risk of melanoma than those who don't use a solarium, and the risk rises to 59 per cent if exposure was before 35 years of age. The risk of melanoma from a solarium increases with more frequent use or if you started using a solarium at a young age.

The risk of developing other skin cancers is also increased. Using a solarium increases the risk of developing squamous cell carcinoma by 67 per cent and basal cell carcinoma by 29 per cent, when compared to people who have never used a solarium.

UVA radiation and solariums

Solariums emit UV radiation up to three times as strong as the midday summer sun. This is equivalent to a UV level of 36, whereas natural UV levels in Victoria rarely exceed 12.

UVA radiation represents most of the radiation emitted in a solarium. It penetrates the deepest layer of the skin and causes damage that includes:

- deterioration of the skin
- premature ageing, wrinkling and loss of elasticity of the skin
- reduced collagen levels in the skin
- blotchiness and pigmentation of the skin.

High doses of UVA radiation can also cause sunburn, genetic damage to skin cells and skin cancer.

Some cosmetics and prescription drugs can increase a person's sensitivity to UVA radiation. These include some antibiotics, medications for high blood pressure, antidepressants, some medications for skin conditions, medications that suppress the immune system (such as those used after organ transplants) and non-steroidal anti-inflammatory drugs (NSAIDs).

Using a solarium while using the cosmetics and drugs mentioned above may result in severe sunburn. It can also cause an itchy and painful rash, followed by blotchy, dark patches on the skin and damage to the eyes.

UVB radiation and solariums

UVB radiation emitted in a solarium is even more dangerous than UVA. It penetrates the uppermost layer of skin and is the main cause of sunburn and skin cancer. Exposure to UVB radiation from using a solarium can also result in minor skin irritations such as rashes, itchiness and dryness.

Skin cancer and other damage from solarium use

Every time skin is exposed to the sun or a solarium, the total lifetime dose of UV radiation is increased. Over time, this damage adds up, increasing the risk of:

- skin cancer – until recently it was believed that UVB was the sole cause of skin cancer, but we now know that both UVA and UVB are responsible for causing skin cancer
- eye damage – when eyes are exposed to UVA in a solarium, the cornea (the transparent layer in the front of the eye) and conjunctiva (the mucous lining of the white part of the eye and the eyelids) may become inflamed, damaging sight and increasing the potential for cataracts and temporary blindness
- skin irritation – up to 50 per cent of the people who use a solarium develop minor skin irritations such as redness, itchiness, dryness and aggravation of existing rashes
- sunburn – short-term effects of using solariums can include burning and blistering
- skin damage – this is impossible to reverse and in the long term, skin will age prematurely and skin cancer may develop

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- changes to the immune system – UV radiation from a solarium has been shown to cause changes in the body's immune system, the effects of which are not yet known.

**Avoid the risk of solariums**

Cancer Council Australia and the Australasian College of Dermatologists do not support tanning in solariums in any circumstances.

Tanned skin is not healthy skin. Be proud of your natural skin colour. Taking care of your skin now will help prevent premature ageing and reduce your risk of skin cancer. If you must tan your body, a fake tanning method that doesn't use UV radiation is preferable (but remember you still require sun protection when using fake tanning products).

**Where to get help**

- Your doctor
- Your pharmacist
- NURSE-ON-CALL Tel. 1300 60 60 24 – for expert health information and advice (24 hours, 7 days)
- Cancer Council Tel. 13 11 20 for information and support.
- Multilingual Cancer Information Line Tel. 13 14 50
- Department of Health Radiation Team, Victorian Government Tel. 1300 767 469

**Things to remember**

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