



Skin Cancers and Sun Spots Fact Sheet

The sun is as essential to life as water and oxygen. It keeps us warm, gives us energy by driving the food chain from which we get our food, and helps to maintain the habitats we live in. It also has a psychological effect; sunlight makes us feel good.

But there's a downside. The ultraviolet light in sunlight damages the DNA in skin, causing skin cells to mutate and grow into cancers. Over millions of years, humans have evolved a mechanism for filtering out ultraviolet (UV) light through variations in skin colour (melanin). But the mass migration of peoples in the 19th and 20th centuries has wreaked havoc with the delicate melanin balance that has evolved over time. When lighter-skinned people migrate and live in hotter climates such as Australia, rates of skin cancer go up.

This is why Australians have the highest incidence of skin cancer in the world, and why skin cancer is the most common form of cancer in Australia. One in two Australians will develop a skin cancer at some time in their lives. Most damage occurs in the first 15-16 years of life, however, prevention past this time period can help minimise the extent of the cancer.

There are three types of commonly encountered skin cancer, named after the type of skin cell from which they are derived.

- Basal cell carcinoma (BCC)

Basal cell carcinomas are the most common type, accounting for about 80 per cent of all skin cancers. BCCs are found most commonly on the ears, nose, and other exposed parts of the body – especially the face and neck. They generally do not spread beyond the skin, but when neglected, they can penetrate quite deeply, producing a destructive ulcer. For this reason, they are usually removed. This is usually done as a minor surgical procedure under local anaesthetic by a GP, a dermatologist or a surgeon. Some types of BCCs, after assessment by a dermatologist, can alternatively be removed by curettage and cautery (sharp scraping and burning), cryotherapy (freezing with liquid nitrogen).

- Squamous cell carcinoma (SCC)

Squamous cell carcinomas arise from the outer layers of the skin. They are less common than basal cell carcinomas, but are more dangerous because they can spread to other parts of the body. They appear in areas most commonly exposed to the sun – the head, neck and upper back and extremities. As they grow, SCCs can spread to lymph nodes (under the armpits, in the groin or in the

neck, for example) or via the bloodstream to other organs. For this reason they must be surgically removed.

SCCs commonly arise from sun spots (actinic keratoses), which in itself is not yet cancerous. A sun spot can be recognised by its scaly and pinkish appearance on sun-exposed skin. Sun spots are extremely common in fair-skinned individuals living in Australia. When sun spots develop, it is an indication that the skin has been sufficiently damaged by the sun and there is an increased risk of skin cancers developing. If left untreated, sun spots may progress to SCCs, which are cancerous. For this reason, sun spots are usually treated with cryotherapy (freezing) as soon as they are detected.

- **Melanoma**

Melanoma (cancerous mole) it is the fifth most common cancer in Australia (after non-melanocytic skin cancers, colorectal, prostate and breast cancer), and it is the most common cancer in men and women aged 15 to 44 years. It is also the deadliest form of skin cancer and in one third of cases, may arise from a pre-existing mole. Since it is known to run in families, genes are thought to play a role with some people inheriting a genetic predisposition to the disease.

A melanoma can arise anywhere in the body, not just on sites exposed to the sun. Sometimes it can arise on the sole of the foot, the palm of the hand or under the nails. It is usually dark and can grow quickly and spread to nearby lymph nodes, or via the bloodstream to distant organs like the bones, liver, lungs or brain. On occasions, melanoma may be flesh-coloured, making early detection difficult.

The outlook for a melanoma is good if it is found early. To enable early detection of melanoma, anyone with a family history of melanoma and anyone who has multiple moles should be examined regularly by an appropriately trained and experienced doctor (such as a dermatologist).

Preventing skin cancer

To minimise your chance of getting skin cancer:

- Avoid the sun in the middle of the day (10 am to 3 pm) as much as possible
- Stay in the shade whenever possible
- Wear protective clothing and a hat when outdoors
- Apply SPF 30+, broad-spectrum sunscreen to the skin. Apply it 20 minutes or so before going outside and reapply every two hours while in the sun
- Regular skin checks by your GP or dermatologist, especially if new and persisting skin spots develop.

To visit a dermatologist, a referral is required from your doctor.