Protecting your skin from skin cancer

Skin cancers

Skin cancers are named after the skin cell where the cancer develops. The top layer of the skin contains three different types of cells: basal cells, squamous cells and melanocytes.

1. **Basal cell carcinoma** is the most common type of skin cancer. It grows slowly over months and years and may damage nearby tissues and organs if left untreated.
2. **Squamous cell carcinoma** is less common but grows faster. It may spread to other parts of the body if left untreated.
3. **Melanoma** is the least common but most dangerous type of skin cancer. Most skin cancer deaths are from melanoma. It is often fast growing and can spread to other parts of the body where it can form a new cancer.

Basal cell carcinomas and squamous cell carcinomas are often grouped together. They are often called non-melanoma or common skin cancers.

The amount of exposure required to cause skin cancer varies from one person to another. In most people the risk of skin cancer increases with the more exposure they have to the sun.

UV radiation

Ultraviolet Radiation (UVR) is an invisible danger because we can't see or feel it. Each time your skin is exposed to UV radiation, the skin cells and how they behave are affected. Overexposure to UV radiation from the sun or solariums causes permanent damage that adds up over time.

The sun is the main source of UVR and this is called solar UVR. It is made up of three wavelengths: UVA, UVB and UVC. All UVA and about 10 percent of UVB radiation reaches the earth's surface. Both UVA and UVB contribute to skin damage and skin cancer.

Solar UVR:

- can cause cancer
- cannot be seen or felt
- does not depend on temperature
- can be high even on cool and cloudy days
- can pass through clouds
- can pass through loosely woven material
- can bounce off reflective surfaces like metal, concrete, water and snow.

Sunburn is a solar UVR burn to the skin. In Australia, sunburn can occur in as little as 10 minutes. Sunburn, whether mild or severe can cause permanent and irreversible skin damage. The most serious health effect of exposure to solar UVR is skin cancer. Protecting your skin from the sun and other forms of UV exposure is important at any age; but sun protection is especially important during childhood and adolescence.

UV or Heat

UV and temperature are not the same. UV is an invisible source of radiation that can't be seen or felt and can damage your skin even on cool or cloudy days.

It is good to know what the UV forecast is. If the UV levels are 3 (moderate) or above, they can damage skin and eyes, and increase your risk of skin cancer. Multiple forms of sun protection is recommended when the UV levels reach 3 and above. In Queensland, UV levels are 3 or above all year round, even in winter, so daily sun protection is needed. And you can still get burnt on a cooler day! Make decisions based on the UV levels, not how hot or sunny it is.

Simple steps to protect your skin:

- Slip, slop, slap, seek and slide
- Check the daily UV alert for sun protection times. Be extra careful in the middle of the day, when UV levels are more intense
- Avoid solariums. Solariums can emit UV radiation up to six times as strong as the midday summer sun.

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LIFESTYLE 6 Reduce your risk

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Slip, Slop, Slap, Seek and Slide

SLIP ON PROTECTIVE CLOTHING

Choose clothing that:

- Covers as much skin as possible, for example, shirts with long sleeves and high necks/collars
- Is made from close weave materials such as cotton, polyester/cotton and linen
- Is dark in colour to absorb UV radiation (white and lighter colours reflect UV radiation onto skin)
- If used for swimming, is made from materials such as lycra, which stays sun protective when wet.

SLOP ON SPF30 OR HIGHER SUNSCREEN

- Use Broad spectrum and water-resistant sunscreen
- Apply it liberally to clean, dry skin at least 20 minutes before going outside
- Reapply it every two hours, or more often if swimming, sweating or after towel drying
- Also use other forms of protection such as hats and shade.

SLAP ON A HAT

- Choose a broad-brimmed hat that provides good protection for the face, nose, neck and ears. Caps and visors do not provide adequate protection
- Make sure the hat is made with closely woven fabric – if you can see through it, UV radiation will get through
- Also wear sunglasses and sunscreen to increase your level of protection.

SEEK SHADE

- Make use of trees or shade structures
- Bring your own pop-up tent or umbrellas
- You will still need to use other protection (i.e., clothing, hats, sunglasses and sunscreen) to avoid reflected UV radiation from nearby surfaces.

SLIDE ON SUNGLASSES

- Choose close-fitting wrap-around style sunglasses that meet the Australian Standard AS 1067 and provide an Eye Protection Factor (EPF) of 9 or above
- If you combine sunglasses with a broad-brimmed hat you can reduce UV radiation exposure to the eyes by up to 98 per cent
- Children should also wear sunglasses that meet the AS 1067.

Vitamin D – how much sun do I need

The sun's ultraviolet (UV) radiation is the best natural source of vitamin D but also the major cause of skin cancer. In Australia we need to balance the risk of skin cancer from too much sun exposure with maintaining enough vitamin D levels.

Vitamin D forms in the skin when it is exposed to UVB radiation from the sun. We need vitamin D to maintain good health, particularly to keep bones and muscles strong and healthy.

The amount of sun exposure you need to produce vitamin D depends on a range of factors such as the UV level, your skin type, your lifestyle, your location, the season, the time of day and the amount of skin exposed to the sun.

Spending longer in the sun does not provide you with higher vitamin D levels, but does increase your risk of skin cancer. In Queensland where UV levels are high all year round, most people receive enough sun exposure to produce vitamin D through their daily incidental activities. These activities include hanging out the washing, checking the letterbox or walking to and from your car. When UV levels are below 3 sun protection is not generally required.

If you are concerned about whether you are getting enough vitamin D talk to your doctor.