

### Key Points

1. Sunscreen provides protection against the damaging effects of ultraviolet (UV) radiation from the sun by reducing the amount of UV rays reaching the skin
2. Sunscreen does not provide 100% protection against UV radiation.
3. Sunscreen should always be used in conjunction with other sun protection measures such as spending less time in the sun when UV radiation is highest, seeking shade, and wearing protective clothing and hats
4. The Cancer Council NT recommends using broad-spectrum, water-resistant sunscreen and reapplying at least every two hours.



### Why use sunscreen?

Australia has the highest rate of skin cancer in the world. Nearly all skin cancers are caused by ultraviolet (UV) radiation in sunlight. By taking steps to reduce exposure to UV radiation, you can reduce your risk of developing skin cancer.

Sunscreen reduces the amount of damaging UV radiation reaching your skin and the regular use of sunscreen can help reduce the risk of sunburn. Long-term exposure to UV radiation and high levels of intermittent exposure and sunburn are significant factors for skin cancer.

### What is the best way to protect my skin?

- ◆ Spend less time in the sun, particularly at peak UV time (between 10am and 3pm).
- ◆ When outdoors, seek shade.
- ◆ Wear protective clothing such as long sleeve, broad brimmed hat and sunglasses that meet Australian Standard AS1067.
- ◆ Sunscreen can be used in addition to these methods, particularly to protect hands and face and areas not protected by clothing or hat.
- ◆ Adopt these behaviours all year round in the Northern Territory.

### How does sunscreen work?

Sunscreen works by filtering (NOT blocking) UV radiation with a chemical barrier that absorbs and/or reflects UV rays away from your skin. No sunscreen provides 100% protection against UV radiation. Some UV radiation will always reach the skin causing damage to the cells below.

### What's in sunscreen?

Sunscreen contains chemicals to filter UV radiation as well as other ingredients such as preservatives, moisturisers and fragrance. Not all sunscreens contain the same ingredients and combinations of chemicals may vary—for this reason one brand may suit your skin better than others.

Chemicals in sunscreen are divided into two types:

*Chemical filters* that work by absorbing UV radiation before it can damage the skin;

*Physical filters* containing micro-fine particles that sit on the surface of the skin and act as a physical barrier.

Sunscreen can contain either or both chemical or physical filters. All chemicals have been tested and approved as being safe and there is no scientific evidence showing any health side effects from using sunscreen.

Phone: 08 8927 4888  
Fax: 08 8927 4990

Email: [healthpromotion@cancernt.org.au](mailto:healthpromotion@cancernt.org.au)  
Web: [www.cancercouncilnt.com.au](http://www.cancercouncilnt.com.au)

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### What does 'broad-spectrum' mean?

UV radiation comes in different wavelengths called UVA and UVB. Both UVA and UVB contribute to sunburn, skin ageing, eye damage, melanoma and other skin cancers.

Sunscreens that are labelled 'broad-spectrum' filter out some of the UVA as well as UVB radiation.

### What do the SPF numbers mean?

SPF stands for *sun protection factor*. The SPF protects against UVB radiation.

An SPF number should be used as a guide only to the level of protection that a sunscreen can provide, not to determine how long an individual will take to become sunburnt. Season, geographic location, skin type, correct application and other variables will impact on the length of time an SPF30+ sunscreen will prevent sunburn.

### Can sunscreen cause skin allergies?

Some people may develop an allergic reaction (such as a rash or stinging) after using sunscreen. Allergic reactions are usually caused by perfumes and/or preservatives in the product and the chemicals that work to filter UV radiation.

If you experience an allergic reaction, speak with your GP or pharmacist about trying a different product with different ingredients.

Products containing titanium dioxide or zinc oxide are usually suitable for sensitive skin.



### Should I use sunscreen on my baby or child?

There is no evidence that sunscreen is harmful to babies or children. It is recommended infants under 6 months of age should be kept out of the sun as much as possible thus minimising sunscreen use. However when required sunscreen may be applied to areas of skin that are not protected by clothing. Reapply regularly if they are in water or sweating.

### How should sunscreen be applied?

- ◆ Always follow the manufacturer's instructions when applying sunscreen
- ◆ To be effective, sunscreen must be applied generously, rubbed in lightly and used with other forms of sun protection.
- ◆ Apply 20 minutes before going in the sun to allow it to bind to your skin for maximum effectiveness. Sunscreen should then be applied every 2 hours.

### Can sunscreen be used so I can spend more time in the sun?

NO. An SPF 30+, broad-spectrum sunscreen filters approximately 96.7% of the UV radiation. This means that over 3% of UV radiation is still transmitting. This small amount of UV radiation is still causing damage to your skin.



### Can you get sunburnt when using sunscreen?

YES—you can still get sunburnt using sunscreen by:

- ◆ Spending time in the sun in peak UV times
- ◆ Not using other sun protection measures
- ◆ Not reapplying every two hours or when it has been washed or wiped off
- ◆ Using insufficient sunscreen
- ◆ Using sunscreen that has passed its use by date.

### Does sunscreen prevent vitamin D production?

Sunscreen filters out most but not all UV radiation. Regular use of sunscreen when the UV index is 3 or above during normal daily activity should not stop you getting enough vitamin D. If you have concerns about vitamin D talk to your doctor.

### Are 'natural' sunscreens effective?

There is no scientific evidence to support 'natural' sunscreen products as being safer or more effective than sunscreen products that are not promoted as 'natural'

To be sure your sunscreen will provide effective protection against UV radiation **always** check on the label that the product complies with the Australian Standard AS/NZS 2604:1998 and has an AUSTL number.



### Does sunscreen have an expiry date?

All sunscreens must be labelled with an expiry date and storage instructions. As a general rule keep sunscreen out of the sun and stored at temperatures below 25°C as much as possible.

