

FACTSHEET

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Sun safety and heat stroke

What is sun safety and heat stroke?

Enjoying the sun during outdoor activities is a favourite pastime for many people living in Australia. Too much sun, however, has been shown to cause skin damage and skin cancer. Sun safety practices can protect you and your children from the damaging effects of the sun and reduce the likelihood of long term harm.

How may a child be affected?

Young children produce more body heat, sweat less and their temperature rises at a faster rate, putting them at a greater risk of heat related illness.¹

Burns

- Ultraviolet radiation (UVR) causes the skin to burn. This burning of the skin can also result in damage to the DNA in cells on the surface of the body. This increases the risk of developing skin cancer (malignant melanoma, squamous cell carcinoma and basal cell carcinoma).

Eye Damage

- Intense UVR can cause inflammation of the eyes. Children exposed from a young age, over long periods of time, can develop cataracts later in life.

Dehydration

- A child can lose large amounts of their body water/fluids, through sweat, while running and playing in the heat. Most heat related illnesses (listed below) are caused by dehydration.

Heat cramps

- Painful muscle cramps can occur in extreme heat conditions. Sweating depletes the salt and fluid in the body, which causes muscle cramps.

Heat rash

- Sometimes called 'prickly heat', heat rash is an irritating skin condition caused by excessive sweating during hot and humid weather. Although heat rash can occur at any age, it is most common in young children.

Fainting

- Extreme heat conditions can lead to the body experiencing a temporary reduction of blood flow to the brain, which can cause a child to faint.

Heat exhaustion

- Very hot and extreme heat conditions can lead to heat exhaustion in children. Signs of heat exhaustion are weakness, nausea and/or giddiness, pale appearance and breathlessness. Heat exhaustion is a serious condition that can develop into heat stroke.

Heat stroke

- Heat stroke occurs when a child's body temperature rises too high, too quickly. A child's normal body temperature ranges between 36.5°C and 37.5°C.¹ When a child suffers from heat stroke, their temperature can rise to 40.5°C or higher. Humid weather and dehydration can make it difficult for the child to sweat and cool themselves down enough to maintain a healthy temperature. If severe enough, it can cause damage to the body organs and be fatal.

- Temperatures inside a car can reach over 70°C, even on a cool day. The car increases in temperature the most within the first five minutes of parking a car. Leaving the windows down only provides a small drop in temperature. As a result children left in cars are at a very high risk of heat stroke.
- Symptoms of heat stroke include:
 - very high body temperature
 - red, hot, dry skin with no sweating
 - dry swollen tongue
 - rapid pulse
 - throbbing headache
 - dizziness
 - confusion
 - nausea
 - eventual unconsciousness.

How common are these conditions?

Australia has the highest rate of skin cancer in the world.² In 2012, 12,036 people were diagnosed with melanoma of the skin.² Of these, malignant melanomas are responsible for the deaths of about 1,617 people every year in Australia. A further 434,000 people are estimated to be diagnosed with non-melanoma skin cancer and result in 592 deaths every year.²

Sun exposure as a child can significantly affect the likelihood of skin cancer later in life.² Babies are particularly vulnerable to hot weather and care should be taken to prevent them from overheating. Their delicate skin is also more easily damaged by UV, so avoid exposure to direct sunlight, especially during the middle part of the day when UV levels are at their highest. Small amounts of sunscreen can be applied to any areas of the skin not protected by clothing or shade. There is no evidence that sunscreen is harmful to babies however some babies might experience minor skin irritations.²

In Australia, an average of 24% of teenagers and 8% of children are sunburnt on a summer weekend. Over 50% of Australians wrongly believe that a tan looks healthy. Tanning increases your risk of skin cancer.

It is very dangerous to leave children in a car unattended. Approximately 5,000 children are rescued every year after being left in a car.³

Is there a Law or an Australian Standard relating to sun safety?

The law, in Australia, states that all sunglasses sold must comply with the Australian Standard (AS/NZS 1067:2003).

All sunscreens supplied in Australia must be tested to the Australian Standard AS/NZS2604:2012: Sunscreen products- Evaluation and classification.

Sunscreens are regulated by the Therapeutic Goods Administration (TGA).

SunSmart tips

Cancer Council NSW recommends protecting your skin in five ways:

- 1) **SLIP** – on clothing that covers your arms and legs
- 2) **SLOP** – on 50+ or higher, broad-spectrum sunscreen
- 3) **SLAP** – on a broad brimmed bucket or legionnaire hat
- 4) **SEEK** – shade
- 5) **SLIDE** – on wrap-around sunglasses with Australian Standard AS/NZS 1067:2003 and have an eye protection factor of (EPF) of 10.

Clothing (slip)

Protective clothing, such as long-sleeved shirts and loose clothing with a close weave can prevent skin damage from the sun. Some clothing is labelled with information about its ultraviolet protection factor (UPF). UPF-40 or above offers very high protection and UPF-15 and above offers good protection.

Sunscreen (slop)

Broad spectrum sunscreen means it protects you from both types of radiation (UVA and UVB).⁴ The higher the sun protection factor (SPF) number, the better it protects you against sunburn. Most people don't use enough sunscreen, meaning they don't get enough protection.² Sunscreen should be applied 20 minutes before going in the sun and then reapplied every two hours.

Hats (slap)

Choose a hat that is broad-brimmed or with a flap at the front and back (legionnaire style) so that your child's face, ears and neck are protected. A hat made of close-weave fabric will reduce the amount of light that gets through. Baseball caps and sun visors are not recommended as they do not provide enough protection.

Shade (seek)

Shade is more ideal than full sun, however sunburn can still occur in partial shade or when cloudy.

Sunglasses (slide)

Sunglasses can protect your child's eyes from short and long term damage. Sunglasses designed to wrap around

the eyes do this well. Always purchase sunglasses which meet the Australian Standard (AS/NZS 1067:2003). Sunglasses with an eye protection factor (EPF) value of 9 or 10 protect from almost all UVR.⁵ Toy sunglasses are not covered by the Standard and should not be used for sun protection.

Sunglasses or goggles at the snow will also help to reduce exposure from glare and reflected UVR.

References

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5. Cancer Council NSW (2013) Protecting your eyes from the sun. Sydney: Cancer Council NSW. Accessed 22/02/2016 from: <http://www.cancerCouncil.com.au/wp-content/uploads/2013/04/Protecting-your-eyes-from-the-sun-August-2013.pdf>
6. Cancer Council NSW. (2015) Sunscreen information sheet. Sydney: Cancer Council NSW. Accessed 22/02/2016 from: http://www.cancerCouncil.com.au/wp-content/uploads/2013/04/Sunscreen-information-sheet_August-2015.pdf

Remember:

- A suntan is not healthy.
 - More care should be taken when your child is out in the sun near highly reflective surfaces such as snow or water.
 - Babies and children are at greater risk of heat stress than adults.
 - Never leave a baby or child alone in a car. If you need to leave, always take your child with you.
 - Remember to slip, slop, slap, seek and slide
- Clothing (slip)**
- Encourage your children to wear clothing that covers as much skin as possible.
- Sunscreen (slop)**
- Broad-spectrum, water resistant sunscreen with a high SPF (50) should always be applied to children when playing outdoors. Apply generously and frequently (at least every two hours), particularly after swimming (always follow directions on sunscreen bottles).
- Hats (slap)**
- Ensure your child always wears a hat when outdoors which covers their face, ears and neck.
- Shade (seek)**
- Limit your children's exposure to UVR. Seek shade between 11am and 3pm (daylight saving time) when UV levels are at their highest.
 - Children under 12 months of age should not be exposed to direct sunlight.⁶
 - When travelling in a car with your baby, make sure they are shaded. The sunlight which passes through the car window can burn your child's skin.
- Sunglasses (slide)**
- Ensure your child wears sunglasses that meet the Australian Standards.
- Water and dehydration**
- Active children should be encouraged to drink regularly to prevent thirstiness. Regular drink breaks during activity are important.
 - Vigorous physical activity should be avoided in hot weather.
 - Seek urgent medical assistance if your child shows any signs of heat stroke.
 - Extra care needs to be taken with sick children or babies in hot weather. Extra fluids, such as breast milk or water, should be given to prevent the risk of dehydration.