

Fact Sheet

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 your children from the damaging effects of the sun and reduce the likelihood of long term harm.

Heat stroke is a serious heat related illness that is the result of a rapid increase in body temperature (the body rises to 41°C or higher within 10 to 15 minutes). The body loses its ability to sweat and is unable to cool itself down.¹

How may a child be injured?

Burns

- Ultraviolet radiation (UVR) causes the skin to burn and can 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.

Heat 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. This happens because the body loses its ability to sweat and is not able to cool down enough to maintain a healthy temperature. If severe enough, it can cause damage to the body organs and be fatal.

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How common are these injuries?

Australia has the highest rate of skin cancer in the world.² It is estimated that approximately 142,000 cases of skin cancer are diagnosed every year.³ Of these, malignant melanomas are responsible for the deaths of about 1,200 people every year in Australia.⁴

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).

It is recommended that manufacturers of sunscreens follow the Australian Standard (AS/NZS 2604:1998). This is a voluntary standard that manufacturers are not required to meet, however The Children's Hospital at Westmead and Kaleidoscope suggest that you purchase a sun screen that meets this standard.

Remember:

- Take every precaution to prevent sunburn to your children when they are outdoors.
- A suntan is not an indication of good health.
- Limit your children's exposure to solar radiation. Seek shade between 11am and 3pm (daylight saving time).
- Shade is more ideal than full sun, however sunburn can still occur in partial shade or when cloudy.
- Ensure your child always wears a hat when outdoors. 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.
- Encourage your children to wear clothing that covers as much skin as possible. 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.
- Sunglasses can protect your child's eyes best when they exclude both direct and peripheral UVR exposure to the eye. 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 EPF value of 10 protect from almost all UVR. See the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) for more information: http://www.arpansa.gov.au/radiationprotection/factsheets/is_Sunglasses.cfm
- Broad-spectrum, water resistant sunscreen with a high sun protection factor (SPF 30) 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).
- More care should be taken when your child is out in the sun near highly reflective surfaces such as snow or water.
- Children are at greater risk of heat stress than adults.
- Active children should be encouraged to drink regularly to prevent thirstiness. Regular drink breaks during activity are therefore vital.
- Vigorous physical activity should be avoided in hot weather.

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- Seek urgent medical assistance if your child shows any signs of heat stroke (very high body temperature; red, hot, dry skin – no sweating; dry swollen tongue; rapid pulse; throbbing headache; dizziness, confusion, nausea; eventual unconsciousness).
- 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 UVR, so avoid exposure to direct sunlight.
- Extra care needs to be taken with sick children or babies in hot weather. Extra fluids should be given to prevent the risk of dehydration.
- 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.
- Never leave a baby or child alone in a car. The inside of a parked, locked car can reach very high temperatures within minutes.

¹ Queensland Health, 2004. <http://www.health.qld.gov.au/phs/documents/cphun/25155.pdf>

² Cancer Council, 2004.

http://www.cancercouncil.com.au/html/prevention/sunprotection/downloads/information_sheet_sunscreen.pdf

³ Cancer Council, 2004.

http://www.cancerinstitute.org.au/cancer_inst/publications/pdfs/IncidenceMortalityReport2004.pdf

⁴ Queensland Government 2007. www.dir.qld.gov.au/workplace/subjects/sunsafety/healtheffects