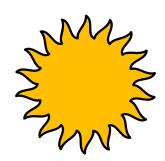


CHILDREN AND HEAT STRESS



In hot weather, it can be very easy for children to suffer from heat exhaustion, or worse still, heat stroke. Too much activity in the sun, not enough of the right liquids, leaving kids in hot cars and unsuitable clothing put your child at risk.

Important Facts

According to health experts, one of the most dangerous factors during excessively hot weather is the addition of humidity

- 55 to 60 percent of bodyweight is water.
- Healthy body temperature is tightly regulated around 37°
- In hot environments, heat is lost through the skin via evaporation of sweat.

Children cannot regulate their body temperature as well as adults for the following reasons:



- As babies are born with the skin they will eventually grow into as adults, the volume of skin covering a baby is greater. This volume of skin can make it harder for a baby's body to maintain fluids.
- Children generate more heat because they have a higher metabolic rate.
- Children do not sweat as much.

Perspiration (sweating) works to cool the body through the increase in the evaporation of fluids.

The following can speed up the loss of fluids:

- Exposure to the sun or sunburn.
- Beverages with caffeine such as soft drinks.
- High temperatures and humidity.
- Times of high activity.



The Risks of Excessive Heat

The risk of excessive heat is water loss (dehydration) which can impair body function and lead to heat exhaustion or heat stroke that can be life threatening.



Infants are at a higher risk than adults from heat reactions.

The Three Stages of Heat Stress are:

- Dehydration
- Heat Exhaustion
- Heat Stroke, which can lead to death if not treated

The Signs of Dehydration and Heat Stress

Indicators can be:

- Child has not urinated in 8 hours
- Only a few wet nappies
- Dark coloured urine
- Cries but produces no tears
- Mouth drier than moist
- Has sunken soft spot in the skull (fontanelle)
- Sunken eyes
- Fretful baby who is hot and dry to touch
- Child is listless or lethargic
- Profuse sweating

All these can be signs that the child needs more fluids.

First Aid



You should be aware of the different symptoms of Heat Exhaustion and Heat Stroke, and how to give first aid to save your child's life:

Heat Exhaustion

Fatigue, dizziness, headache and nausea are common signs of heat exhaustion. These symptoms are followed by cold, pale and clammy skin, with increased breathing and pulse rates. Stomach and leg cramps may also occur.

You need to act quickly. Move the child to a cool place. Lie the child down and remove clothing. Help the body to cool by placing moist, cool cloths on the forehead and wrists, and fan the child. If the child has cramps, apply ice packs and gently stretch the muscles. Do not massage the muscles. Replace lost fluids with water, ideally with some added sugar. Seek medical aid if recovery is not prompt.

Heat Stroke

Signs of Heat Stroke include high body temperature, red-hot dry skin, loss of consciousness, a full bounding pulse and rapid shallow noisy breathing. *Without prompt care, a child with Heat Stroke will die.*

Treat the child in a similar way to a child suffering from Heat Exhaustion (see above), but **seek medical attention as a matter of urgency**. Heat Stroke puts a huge strain on the body's circulation system, kidneys, brain and lungs.

Any child with suspected heat stress whose temperature is greater than 40°C should receive urgent medical attention.





Fluids and Food

- Since children do not always recognise their thirst, caregivers are encouraged to offer them a drink of water frequently – before, during and after play.
- An indicator that a baby is getting enough fluids is if it has six to eight pale wet nappies in 24 hour period.
- An infant should be reasonably content and alert and be gaining some weight.

Suggested Fluids Intake

8 to 12 cups of fluids per day. Cool water is preferred as it is absorbed more readily than warm, hot or iced water.

Other Suggestions for Fluid Replacements

- Milk.
- 100 percent fruit juice.
- Low- sodium vegetable juice.

Suggested Solid Foods

- Melons, tomatoes and celery.
- Soups, broths and puddings.
- Provide plenty of fresh fruit and vegetables.
- Well-chilled salad.
- Avoid high fat foods and sugary desserts.



Planning the Day

Proper planning will help to avoid situations that could put your child at risk from Heat Stress.

Food

- Cook during the coolest part of the day.
- Cover and refrigerate cooked foods to eat later in the day.
- Plan to eat smaller portions.

Suggestions When Taking Your Lunch

- Well-chilled food in an insulated cooler.
- Place the cooler in a shady place.
- Food left out for more than an hour at a temperature around 30°C should be discarded.

How to Keep Your Child Cool

Environment

- Try using a fan with a wet sheet in front of the infant or with a fine mist from a spray bottle of cool water. The use of a fan only, may not cool the environment adequately. Make sure the child cannot touch the fan, be cut with the blade, or electrocuted.
- Keep sheets cool by placing them in a plastic bag in the refrigerator for use at sleep time.
- Consider relocating in the coolest room of the building.
- Skin contact can be quite uncomfortable for a baby at feed times. Try using a towel, sheet or nappy between yourself and the baby.
- Try placing the baby on a sheepskin, which allows air to flow freely through the natural wool fibres
- Often during hot weather, babies change their feeding and sleeping patterns. They may have shorter more frequent feeds during the day and a long leisurely feed at night when it is cooler.



Clothing

- Dress with closely woven, loose-fitting, comfortable clothes with T-shirt collars and long sleeves. Darker colours have advantages because they actually let *less* sunlight through. However, closeness of weave is more important than the colour of the fabric or its weight.
- Wear a hat, preferably a floppy hat with a wide-brim all around, or a 'foreign legion' style cap with flaps, to protect the face, neck and ears. Brims should be 60mm or wider for children.



- Use a broad spectrum sunscreen appropriate for your child's age, with an SPF of 30+. Apply to areas of skin that are not covered by clothing.
- The Cancer Council and reputable suppliers can advise on a range of swimwear & clothing which covers and protects the child's body from the harmful effects of ultraviolet light.
- UPF stands for Ultraviolet Protection Factor. Clothing and shade devices may be labelled with a UPF, which is an indication of how much protection the fabric provides:
 - UPF 15-24 Good Protection
 - UPF 24-39 Very Good Protection
 - UPF 40-50 Excellent Protection
 - UPF 50+ Highest rating on Australian products, and highly recommended for maximum protection
- If the infant's clothes are wet, rather than thinking this will keep them cool, change them, because the protection from ultraviolet light will be reduced.

Reduce Exercise

Taking occasional breaks from outdoor activities should help minimise the effects of heat and humidity during extreme heat.

Medication

Some medications when exposed to heat and sunlight may influence the effectiveness or cause side effects when taken. Always read the medication labels on recommendations for storing.

Babies Under 6 Months



- Keep babies out of the direct sunlight especially between the hours of 10am and 3pm.
- Always keep an infant's head covered with a hat when outdoors.
- Patch test infants for any skin reactions before using sunscreen.
- Sunscreens containing alcohol or perfume are not recommended for infants.
- When dressing for sun protection, use closely-woven fabric with T-shirt collars and long sleeves.

Further information: Cancer Council

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