

## Hot Cars

On a typical Australian summer day, the temperature inside a parked car can be as much as 30° to 40° higher than the outside temperature, i.e. on a 30° day, the temperature inside the car could be as high as 70°.

75% of the temperature rise occurs within 5 minutes of closing the car and leaving it,

90% of the temperature rise occurs within 15 minutes.

Dark coloured vehicles reach slightly higher temperatures than lighter coloured vehicles.

The greater the amount of glass in the car (eg hatchbacks) the faster the rise in temperature.

Larger cars heat up just as fast as smaller cars.

The colour of the interior trim of the car has no effect on cabin temperature.

Having the windows down 5 centimetres causes only a slight temperature drop (78° in closed car, 70° in car with windows open 5 centimetres)

### Case study 1

*In July 1998 at 4.47pm, a 4-year-old girl was found in a locked car in front of a childcare centre. She had disappeared from the centre at approximately 10am. CPR was administered on the scene, but rigor mortis had already occurred.*

*Death was attributed to hyperthermia. The temperature inside the car at the time of her death was unknown; however, the estimated temperature in the area that day was 33.9°.*



### What are the risks?

- The temperature inside the car begins to rise, as does the humidity while the airflow decreases.
- As the temperature rises, the child begins to dehydrate and develop heat exhaustion.
- Young children are more sensitive to heat than older children and adults, and are at greater risk of heatstroke.
- The younger the child, the greater the risk of dehydration and heatstroke.
- Hyperthermia, dehydration and asphyxia can all lead to death.
- Concurrently, the child may also become distressed and try to get out of the restraint; if the harness on the restraint is loose the child is at risk of strangulation on the harness.

### Case study 2

*A customer outside a Coles Supermarket finds a 6-year-old boy, a 4-year-old girl, and a 2-year-old boy in a locked car with the windows closed. After unsuccessfully attempting to attract the children's attention the customer called 000. Police and paramedics were able to get the 6-year-old to unlock the car door. Paramedics reported the children were unresponsive, disorientated, flushed, and profusely sweating and had delayed reflexes.*

*The children were placed in the shade under a tree and given juice and water for re-hydration; they regained alertness and began talking within 30 minutes. The children had been in the car for 10-20 minutes. The outdoor temperature and humidity were 28.9° and 60%, respectively, and the estimated temperature inside the car was greater than or equal to 43.3°. Paramedics reported that the children had classic signs of the onset of heatstroke. Another*

*5 – 10 minutes would have been life threatening.*

## Safety Steps

- ☞ If you have to leave the car, even to run a quick errand; take the children with you.
- ☞ Do not use the car as a 'baby-sitter' substitute.



## Safety when travelling in hot weather

- ☞ Provide plenty of cool fluids, preferably water, for all occupants and offer them to children regularly.
- ☞ Dress children suitably to promote airflow around their bodies i.e. if the car does not have air conditioning, dress the children in clothing made of lightweight fabric and light in colour.
- ☞ Double check that the harness fits the child – in summer time with children wearing lightweight clothing, restraints and harnesses may need to be tightened.



- ☞ For rear facing restraints, do not use a hood to protect the baby from the sun. This will decrease airflow around the baby's head. Instead use a visor or sunshade to filter the sun's rays.



- ☞ Make frequent stops, at least every 2 hours, so that all occupants can get out of the car for exercise.
- ☞ This includes removing the baby from the capsule, and allowing the baby to roll around on a rug on the ground.
- ☞ When getting back into the car, recheck the fit of the children's harnesses.
- ☞ Plan car journeys for the cooler hours of the day.
- ☞ Cool your car down as much as possible before putting the child in the car.
- ☞ Where possible, when stopping or parking your car, put it undercover or in the shade to reduce the amount of the direct sunlight hitting your car.

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