

Fatal Distraction

Fact sheet for Early Childhood Development Professionals

Fatal distraction is a condition that impacts our short-term memory capacity. For parents, it can result in children being unintentionally left in cars, with potentially devastating consequences.

The Victorian Government's *Fatal Distraction* campaign aims to raise awareness of this issue and help early childhood development professionals and parents take steps to minimise the risk to Victorian families.

This fact sheet provides an overview of the human memory system and information on the factors that can contribute to fatal distraction, along with strategies to prevent its occurrence.

WHAT IS FATAL DISTRACTION?

While there are many occasions of children accidentally being locked in cars and parents or carers soon realising, there are also incidents where parents or carers unknowingly leave their child in a car, due to a short-term memory failure, owing to extreme exhaustion, stress or a change in routine.

This is commonly known as *fatal distraction* and it can lead to serious injury or in extreme and tragic cases, the death of a child due to heat stroke or hyperthermia.

HOW OFTEN DOES IT OCCUR?

Over the last few years in Australia, there have been a small number of deaths attributable to this issue.

What we cannot be sure of is the number of children who have been left unattended in a car for a short period, before their parents or carers recalled that they were still in the vehicle. The data is limited on the prevalence of fatal distraction in the community.

HOW DOES IT HAPPEN?

Fatal distraction is the result of an overloaded short-term memory system.

This is a condition that can happen to anyone – and understanding how the human memory system works is key to understanding why fatal distraction occurs.

The human memory system

Our human memory comprises three main systems:

- short-term memory (housed in the **prefrontal cortex**) which allows a person to retain a small amount of information over a matter of seconds;
- the habitual memory system (housed in the **basal ganglia**) that governs repeated and subconscious actions, such as driving the same route each day; and
- long term memory, stored in the **hippocampus**.

A person engages their short-term memory to recall items for a short period of time, such as a rehearsing a shopping list, a 'to-do' list, or a sequence of events to perform a temporary action, before those items are quickly forgotten.

Short-term memory only holds about 5-9 items at any time. Once this capacity is exceeded these items start to be forgotten. For instance, when a person is distracted from rehearsing the shopping list, even for a few seconds, that distraction can be enough to erase the memory, regardless of the importance of the item.

Interference with the short-term memory system

Short-term memory is highly susceptible to interference from a number of factors including:

- diverted attention or distraction;
- sleep deprivation; and
- acute and chronic stress.

A busy and stressful lifestyle combined with sleep deprivation can overload short-term memory capacity. We know that parents or carers often have to manage a range of competing demands every day. Some evidence indicates that parents or carers can become distracted by these everyday requirements, compromising their short-term memory.

This lapse of memory is intensified if the parent has a young baby and is experiencing associated sleep deprivation and exhaustion, along with disruption to normal routine and/or new way of life.

On autopilot

When short-term memory is compromised or we are distracted, our habitual memory system can take over from the short-term memory system (this has been likened to being on 'autopilot'). We carry on with our normal (habitual) routine, and do not remember that an item was forgotten. In this situation, a 'false memory' can be created, where a person's long-term memory from previous experience 'fills in the blanks'.

Implications for fatal distraction

Every day, people perform tasks that become routine, involving little conscious thought, such as driving a known route to work. In many cases of fatal distraction, a parent or carer has had to stray from this routine, for example, to drop a child off or stop somewhere on the way home.

Remembering this change to routine requires information from short-term memory. However, short-term memory has been compromised by sleep deprivation, distraction, or acute or chronic stress, and the 'autopilot' of routine or the habitual memory has overridden the missing short-term memory. They have continued their daily activity according to their usual routine, forgetting that their child is in the car.

When a case of fatal distraction occurs, parents or carers often genuinely believe that their child is elsewhere and safe (for example, at their early childhood education and care service), due to the phenomenon of 'false memory'.

The risk of fatal distraction can also be increased if the child has been sleeping in the back of the car at the time the parent reaches their destination and gets out of the car, as there are fewer 'cues' for recalling that the child is present.

WHAT CAN EARLY CHILDHOOD PROFESSIONALS DO?

Early childhood professionals should always look out for the symptoms of severe sleep deprivation and stress in parents and carers and provide support and referral as is appropriate to their role.

Early childhood professionals can help parents and carers understand the potential dangers of fatal distraction by:

- informing parents and carers about fatal distraction at Key Ages and Stages appointments
- discussing fatal distraction at first time parent's groups and supported play groups
- discussing potential strategies for parents to create routines that remind them to check their back seat before leaving the car
- asking them about family and other social supports that can assist them in times of stress and sleep deprivation.

WHAT CAN PARENTS AND CARERS DO?

While it is difficult to tell people to remember something they don't know they have forgotten, there are some things that may lower the risk of inadvertently leaving their children in hot cars.

You can help parents or carers to create routines, or provide cues that **remind them to check their back seat** such as:

- using a mirror for rear-facing car seats
- leaving a bag, phone or wallet in the back of the car
- placing a child's bag or cuddly toy in the front seat as a reminder
- creating a mental list of the things to check each time they leave the car – e.g. baby, keys, wallet, phone
- asking their childcare centre, babysitter or other carer to give them a call if they have not dropped off their child off on time
- making it routine to open the back door of the car every time they park, even if there is no one in the back seat
- use of electronic video monitoring systems
- using technology by installing electronic controls that are permanently fitted to the car or car restraint which create an audio reminder to the parent when they stop the car.

The Department of Education and Training would like to acknowledge Associate Professor Matthew Mundy for his contribution to this factsheet.