KIDS AND CARS.ORG™

LOVE THEM, PROTECT THEM

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Child Vehicular Heat Stroke Fact Sheet:

Vehicular heat stroke is largely misunderstood by the general public. The majority of parents are misinformed and would like to believe that they could never "forget" their child in a vehicle. ***The most dangerous mistake a parent or caregiver can make is to think leaving a child alone in a vehicle could never happen to them or their family.***

In well over 50% of these cases, the person responsible for the child's death ***unknowingly*** left them in the vehicle. In most situations this happens to the most loving, caring and protective parents. It has happened to a teacher, dentist, social worker, police officer, nurse, clergyman, soldier, and even a rocket scientist.
It can happen to anyone...

The Greenhouse Effect in Vehicles

- The inside of a vehicle heats up VERY quickly! Even with the windows cracked, the temperature inside a car can reach 125 degrees in minutes.
- Cracking the windows does not help slow the heating process OR decrease the maximum temperature
- 80% of the increase in temperature happens in the first 10 minutes
- Children have died from heatstroke in cars in temps as low as 60 degrees.

Contributing Factors

- A child's body overheats 3-5 times faster than an adult body.
- Change in normal daily routine, lack of sleep, stress, fatigue, distractions, hormone changes, worry... symptoms that ALL new parents experience!
- Rear-facing car seats look the same whether there is a baby in it or not.
- Children, especially babies, often fall asleep in their rear-facing child safety seats; becoming quiet, unobtrusive little passengers.

Memory (Competing Brain Systems)

- Prospective Memory: processed by 2 brain structures
  1. **Hippocampus**, stores new information, the 'here and now' (processes that a child is in the car)
  2. **Prefrontal Cortex**, enables us to plan future, accounting for a change in routine (processes route, including to go to daycare rather than straight to work)
- Habit memory: forms subconsciously through repeated activities like riding a bike
  - **Basal Ganglia** – stores habit memories (driving to/from work daily), enables auto-pilot

What causes a parent to misremember? The basal ganglia takes over and suppresses the prefrontal cortex. The brain is on auto-pilot, doing what it would do on any given day, not accounting for changes in routine. Memory specialists note that the basal ganglia is much more likely to take over when someone is fatigued.

"Parents lose awareness that their children are in their cars. Tragically, these parents report that they had pictures of their child on their desks, they talked about their child, and even left work on time to pick up their child from daycare." (Dr. David Diamond, Neuroscientist, University of South Florida)

Statistics

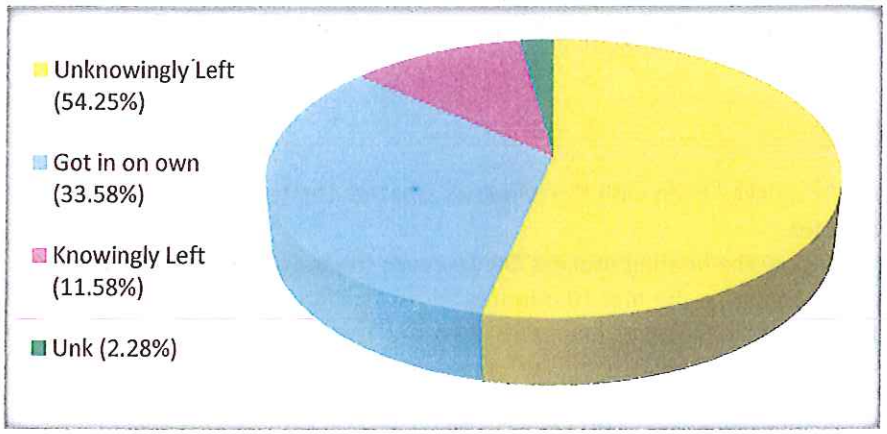
The **average** number of U.S. child vehicular heat stroke deaths is **37** per year. (*one every 9 days*)

	U.S. Child Vehicular Heat Stroke Deaths by Year (1991-2013)															
1991-99	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	TOTAL
156	35	39	31	43	39	47	29	36	43	33	49	33	34	44	31	**723**

Data Source: KidsAndCars.org
(statistics by state, county or city available upon request)

Circumstances

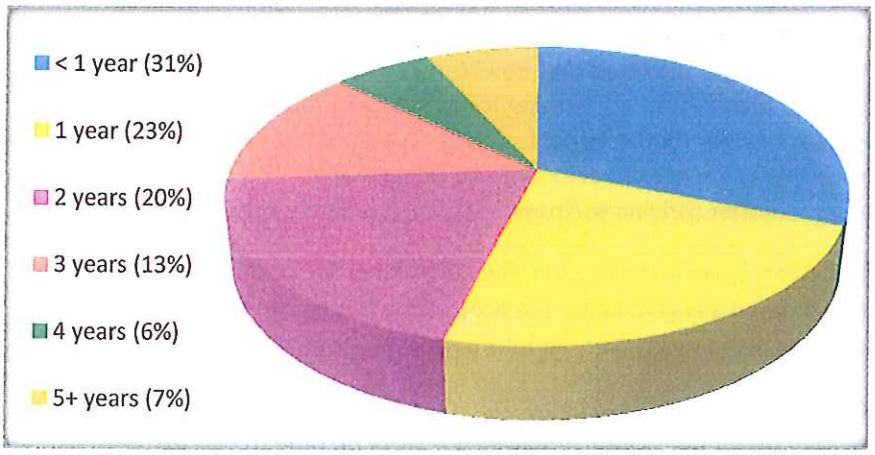
In an overwhelming majority of child vehicular heatstroke deaths, it was a loving, responsible parent that unknowingly left the child.



Age of Victims

Eighty-seven percent (87%) of children who have died from vehicular heat stroke are age 3 and younger.

Fifty-four percent (**54%**) of heat stroke deaths in vehicles involve children ***age one and younger.*** Rear-facing child safety seats do not look any different to the driver if they are occupied or empty, which can cause a parent to think the child is no longer in the car with them.



Prevention / Safety Tips

KidsAndCars.org believes the solution to these preventable tragedies is a combination of education and technology. KidsAndCars.org would like all vehicles to come equipped with a system that would alert a driver if a child has been left in the vehicle. Below are some simple tips parents and caregivers can follow to prevent heat stroke tragedies.

- Never leave children alone in or around cars; not even for a minute.
- **"Look Before You Lock"** - Get in the habit of always opening the back door to check the back seat before leaving your vehicle. Make sure no child has been left behind.
- Create a reminder to check the back seat.
    - Put something you'll need like your cell phone, handbag, employee ID or brief case, etc., in the back seat so that you have to open the back door to retrieve that item every time you park.
    - Keep a large stuffed animal in the child's car seat. When the child is placed in the car seat, put the stuffed animal in the front passenger seat. It's a visual reminder that the child is in the back seat.
- Make a strict policy with your childcare provider that if your child does not show up as scheduled; they will contact you immediately to ensure your child is safe. In turn, you will agree to always call the childcare provider if your child will not be there on a particular day or time as scheduled.
- Keep vehicles locked at all times, even in driveways or garages. Ask home visitors, child care providers and neighbors to do the same.
- Keep car keys and remote openers out of reach of children.
- If a child goes missing, immediately check the inside passenger compartments and trunks of all vehicles in the area very carefully, even if they are locked. A child may lock the car doors after entering a vehicle on their own, but may not be able to unlock them.
- If you see a child alone in a vehicle, get involved. Call 911 immediately. If the child seems hot or sick, get them out of the vehicle as quickly as possible.
- Be especially careful during busy times, schedule changes and periods of crisis or holidays. This is when most tragedies occur.
- Use drive-thru services when available (restaurants, banks, pharmacies, dry cleaners, etc.) and pay for gas at the pump.

Please share these important safety tips with your childcare providers, teachers, relatives, friends, family and neighbors... It could save a life!