

# Hot-car deaths could happen to any parent, experts say

By Kelsey Ryan, The Wichita Eagle Published Saturday, July 26, 2014, at 3:28 p.m. Updated Monday, July 28, 2014, at 11:42 a.m.



Brian Corn/ The Wichita Eagle | Matt Riedl/ The Wichita Eagle - A gray Dodge Charger sits in front of a house in the 1500 block of South Topeka Friday morning. A child died after being left in the vehicle.

## Kids in Cars petition

Kids in Cars has started a petition to authorize additional funding for research and development of technology by the U.S. Department of Transportation and to require technology in all vehicles or child safety seats to prevent children from being left alone in cars.

“Our country has done a good job of child-proofing homes, but there haven’t been big campaigns about child-proofing cars,” said Janette Fennell, president and founder of Kids and Cars.

<https://petitions.whitehouse.gov/petition/prevent-child-heat-stroke-deaths-vehicles/ymQR1Ty0>

## Child safety checklist

Child safety organizations offer these tips to help caregivers remember that a child is in the back seat of a car:

- Put something in the back seat that you use all the time, such as a cellphone, briefcase or handbag, so you are more likely to open the back door of the vehicle when you park.
- Keep a stuffed animal in your child’s car seat. When you put your child in the car seat, place the stuffed animal in the front seat to serve as a reminder.
- Get in the habit of opening the back door of your car every time you park to make certain no one is left behind.
- Ask the baby sitter or child care provider to call your cellphone if your child does not arrive on time.
- Lock your car and keep the keys out of reach. About 30 percent of fatalities from vehicular heatstroke come from children who play in cars.

The National Highway Transportation Safety Administration says that technology isn’t there yet to alert parents to children who are left behind. Still, several consumer products are available to remind a parent about whether a child remains in a car seat. For example, the First Years Brand iAlert car seat sends alerts to smartphones. The ChildMinder Smart Clip sends an alert to an alarm carried on a key ring once the caregiver is more than 15 feet from a vehicle. The Cars-N-Kids Car Seat Monitor turns on upon sensing a child’s weight and sounds a lullaby when the car has stopped. Consumer reviews vary widely, so do your homework. A 2012 study paid for by the highway administration said that none of the 11 products it tested was completely reliable, and some were difficult to use.

Source: Kidsandcars.org; National Highway Transportation Safety Administration

## It is a parent’s worst nightmare.

The death of a 10-month-old girl on Thursday evening from being left alone in a car for two hours with nearly 90-degree temperatures outside is a sobering reminder about the danger of leaving children alone in the car.

But it’s not as uncommon as you might think.

“These tragedies are unfortunately occurring on a regular basis,” said David Diamond, a neuroscientist and professor at the University of South Florida who has been researching vehicular child hyperthermia deaths for the past 10 years. The girl was the 18th child to die in a hot car so far this year in the U.S., according to [Kids and Cars](#), an advocacy group for child safety based in Kansas City, Mo.

She was the 10th child to die in a hot car in Kansas since 2000, with the most recent Kansas case being a child in Hays in 2009.

There are typically two categories of child vehicular hyperthermia deaths, Diamond said: When a parent is supposed to take the child to day care and forgets, drives to work with the child in the car and the child stays in the car all day and dies, or when a parent comes home and upon arrival leaves the car and forgets the child inside.

Diamond recently testified at a trial in Australia in which a mother and her son were in the front of a car and forgot the baby in the back seat.

“The bizarre thing about this is that the person who leaves a child in the car believes the child is safe and where it belongs,” he said. “With the case in Australia and others, the parents believed the child was home, safe and sound in her bedroom. The brain sort of plays a trick on you and makes you believe the child is safe.”

The Australian mother was found not guilty of manslaughter.

There is a part of our brain, called the basal ganglia, that goes into “auto pilot” and guides our habits without us really thinking about them, Diamond said.

“This happens to me all of the time. I pull out of the garage, shut the garage door with a remote and drive down the street. As I drive, I have no memory of whether I shut the door or not,” Diamond said.

“Basal ganglia get you to do things but doesn’t store any new information in the brain. It’s a great convenience that we have this habit system.

“But this is where we get into trouble with our habit system: It suppresses the other brain memory system that has to do with details of our day, the system that tells us there’s a child in the back seat or details like did we shut off the gas range or shut the garage door? The habit base of the brain overrides the other – they’re competing against each other for our awareness.”

That is, unless there is something to trigger the memory. Like something on TV that caused 29-year-old Seth Jackson, a foster parent, to rush out to the car Thursday evening and find the 10-month-old baby dead inside, authorities say. There also are environmental factors that play into it, Diamond said. The hippocampus, the part of the brain that stores details and facts, can be impaired by things like a poor night’s sleep or stress.

“You’re much more likely to do something out of habit if you’re sleep-deprived or under stress, which is common for parents with young children,” he said.

About 55 percent of cases of child vehicular heat stroke occur when the child is left unknowingly in the vehicle, about 31 percent of the cases are when a child gets into the vehicle on their own, and about 12 percent of the time the child was knowingly left in the vehicle, according to Kids and Cars. The remaining 1 percent are under unknown circumstances.

“The worst thing people do – and they shouldn’t – is try to make monsters out of these people and by that feel like it won’t happen to them,” said Janette Fennell, president and founder of Kids and Cars.

“The lion’s share of these cases are really good parents who make the worst mistake of their life. They don’t think they could ever forget the most precious thing in their lives.”

About one-third of child hyperthermia deaths are among children younger than 1.

And while the circumstances are all different, Fennell said, most cases have one common thread: a changing routine. For example, a parent may not be the one to usually drop the child off at day care, or he or she have to take a phone call.

### **Physiological response**

Jan Null, a meteorologist and researcher at San Francisco State University who tracks child hyperthermia deaths in cars, said that with an outside air temperature of about 90 degrees, the air inside the car could have been 145 degrees or more.

“Objects or a person inside the car in direct sunlight would have been significantly hotter,” Null said. “We all know cars get hot, but I don’t think we all know that they get in temperature ranges that are basically the same as a slow cooker.”

A 2005 [study](#) that Null helped write that appeared in the journal Pediatrics found that even cooler outdoor temperatures of 72 on sunny days can put infants at risk.

“Vehicles heat up rapidly, with the majority of the temperature rise occurring within the first 15 to 30 minutes. Leaving the windows opened slightly does not significantly slow the heating process or decrease maximum temperature attained,” the study found.

Hyperthermia involves an elevated core body temperature typically above 104 degrees, said Greg Faimon, an emergency room physician at Galichia Heart Hospital. The increased temperature can cause confusion, vomiting and muscle cramps and, as the body is further depleted of fluids, organs begin to fail.

Ultimately, hyperthermia can lead to cardiac arrest, Faimon said.

## **Legal actions**

There are 19 states that have laws against leaving children in the car alone.

Kansas is not one of them.

Fennell said her organization has tried for years to get laws passed in Kansas to make it illegal to leave children alone in cars even for a few minutes while a parent runs an errand.

"We want the laws, not to be the 'parent police' but to make sure the public knows this is very dangerous," Fennell said. "If the only reason parents take kids with them out of the car is because they have concerns about a ticket, that's great. Really, it's the kids we're worried about, not the convenience of the parent."

On Friday, Jackson was booked into Sedgwick County Jail on suspicion of aggravated endangerment of a child.

Investigators say they hope to present their findings to prosecutors early this week, who in turn will decide whether to file charges.

Often "the legal issues are: Did the parent intend to cause harm and, second, was the person aware that his actions would lead to harm? That's what distinguishes something from being a tragedy to being a crime," said Diamond, the neuroscientist.

"There is a knee-jerk reaction people have to this kind of thing occurring, and that is people will condemn the person who forgot the child and cast them as a child killer. But this says nothing about the person's character. This has happened to people in all walks of life, good parents, and it's a matter of conditions coming together. The bottom line is good parents forget their children, too."

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