

# Keeping Minnesota *Ready*



## VEHICLE HEAT SAFETY FACT SHEET

- *Courtesy NOAA/National Weather Service*

### CHILDREN, ADULTS, AND PETS ENCLOSED IN PARKED VEHICLES ARE AT GREAT RISK

Each year children die from hyperthermia as a result of being left enclosed in parked vehicles. Hyperthermia is an acute condition that occurs when the body absorbs more heat than it can dissipate. This can occur even on a mild day. Studies have shown that the temperature inside a parked vehicle can rise rapidly to a dangerous level for children, adults, and pets. Leaving the windows slightly open does not significantly decrease the heating rate. The effects can be more severe on children because their bodies warm at a faster rate than adults.

### CHILD SAFETY TIPS

- **Check to make sure seating surfaces and equipment** (child safety seat and safety belt buckles) **aren't too hot** when securing your child in a safety restraint system in a car that has been parked in the heat.
- **Never leave your child unattended** in a vehicle, even with the windows down.
- **Teach children not to play** in, on, or around cars.
- **Always lock car doors and trunks** -- even at home -- and keep keys out of children's reach.
- **Always make sure all child passengers have left the car** when you reach your destination. **Don't overlook** sleeping infants.

**BEAT THE HEAT...**

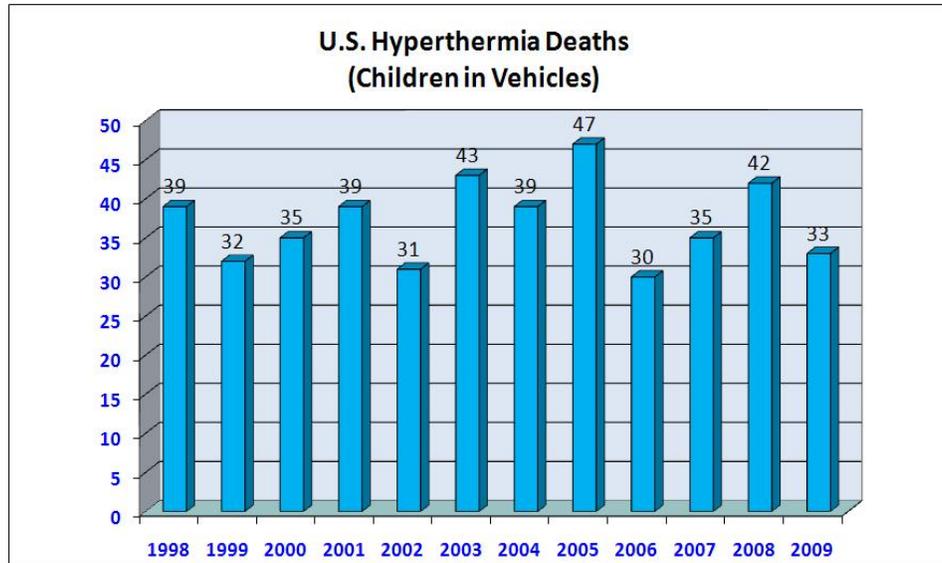
**CHECK THE BACK SEAT!**



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Hyperthermia deaths aren't confined to the summer months only. They also happen during the spring and fall. Below are some examples.

**Hawaii, March 07, 2007:** A 3 year old girl from Honolulu died from hyperthermia. The child's father told police that he left her in a child seat in the back seat of the car for an hour and a half late Saturday morning while he visited friends in a Makiki apartment building. The outside temperature was only **81 degrees**.

**North Augusta, SC; April 2006:** A mother left her 15 month old son locked in a car. He was left in the car for 9 hours while his mom went to work. She is currently serving a **20 year prison sentence**.

**Denver Aug 2008:** Two kids that died in an overheated car may have been on their own for more than **3 hours** as their mother slept after working a night shift. The kids died in a closed but unlocked car, investigators believe the temperature where the children were found may have reached **123 degrees**.

Adults are also susceptible to hyperthermia. On July 12, 2001 a man died of heatstroke after falling asleep in his car with the windows rolled up in the parking lot of a supermarket in Hinds County, Mississippi.

## VEHICLE HEATING DYNAMICS

The atmosphere and the windows of a car are relatively "transparent" to the sun's shortwave radiation and are warmed little. However this shortwave energy does heat objects that it strikes. For example, a dark dashboard or seat can easily reach temperatures in the range of 180 to over 200 degrees F.

These objects (e.g., dashboard, steering wheel, childseat) heat the adjacent air by conduction and convection and also give off longwave radiation (red) which is very efficient at warming the air trapped inside a vehicle.

