



Hartford Police Department Detective Bureau

50 Jennings Rd.
Hartford, Connecticut 06120
(860) 757-4200



Juvenile Investigative Division

Heat Stress From Enclosed Vehicles

Every year, children die from heat stroke after being left unattended in motor vehicles. Previous studies found that on days when ambient temperatures exceed 86 degrees F, the internal temperatures of the vehicles quickly reached **134 to 154 degrees F**¹.

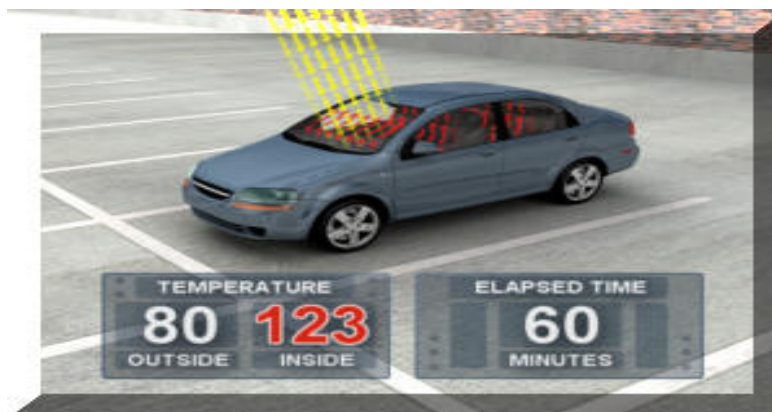
Medical Information

- Heatstroke occurs when a person's temperature exceeds 104 degrees F and their thermoregulatory mechanism is overwhelmed
 - *Symptoms include: dizziness, disorientation, agitation, confusion, sluggishness, seizure, hot dry skin that is flushed but not sweaty, loss of consciousness, rapid heart beat, hallucinations*
- A core body temperature of 107 degrees F is considered lethal as cells are damaged and internal organs shut down
- Children's thermoregulatory systems are not as efficient as an adult's and their body temperatures warm at a rate 3 to 5 times faster than an adult's

Vehicle Heating Table

- Average elapsed time and temperature rise (e.g., Outside air temperature 80 degrees F. Within 60 minutes vehicle interior will reach **123 degrees F**)².
 - 10 minutes ~ 19 deg F
 - 20 minutes ~ 29 deg F
 - 30 minutes ~ 34 deg F
 - 60 minutes ~ 43 deg F
 - 1 to 2 hours ~ 45-50 deg

**Image courtesy of J. Null's Study of Excessive Temperatures in Enclosed Vehicles*



¹ McLaren C., Null J., Quinn J. Heat Stress From Enclosed Vehicles: Moderate Ambient Temperatures Cause Significant Rise in Enclosed Vehicles. *Journal of the American Academy of Pediatrics*. 2005;116:e109-e112. Available at: <http://www.pediatrics.org/cgi/content/full/116/1/e109>

² Null J., Study of Excessive Temperatures in Enclosed Vehicles. Available at: <http://ggweather.com/heat/hyperthermia2003.htm>



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SAFETY RECOMMENDATIONS

- **NEVER LEAVE A CHILD UNATTENDED IN A VEHICLE. NOT EVEN FOR A MINUTE!**
- Be sure that all occupants leave the vehicle when unloading. Don't overlook sleeping babies
- Always lock your car and ensure children do not have access to keys or remote entry devices. If a child is missing, check the car first, including the trunk
Teach your children that vehicles are never to be used as a play area
- Place your purse or briefcase in the back seat as a reminder that you have your child in the car
- Make "look before you leave" a routine whenever you get out of the car
- Have a plan that your childcare provider will call you if your child does not show up for school