In and Around Vehicle Safety

Key Facts

- Nontraffic-related vehicle incidents are those that occur on private roads, driveways, parking lots, or off-road locations and may involve noncrash incidents.
- In 2007, nontraffic incidents were associated with an estimated 262 fatalities and 115,000 injuries among children ages 14 and under.
- Annually, more than 9,000 children ages 14 and under are treated in emergency departments for injuries that occurred while they were unattended in or around motor vehicles.

<table>
<thead>
<tr>
<th>2007 Nontraffic-Related Deaths Among Children (United States, Ages 14 and Under)</th>
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<tbody>
<tr>
<td>Vehicle Occupant 4%</td>
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<tr>
<td>Forward-Moving Vehicle 49%</td>
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<tr>
<td>Backover 45%</td>
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<tr>
<td>Struck by Driverless Vehicle 2%</td>
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Backover Injuries

- In 2007, motor vehicle backovers were associated with an estimated 99 deaths and 2,000 injuries among children ages 14 and under.
- It is estimated that backovers account for 45 percent of nontraffic crash fatalities and 20 percent of nontraffic crash injuries to children.
- Approximately 39 percent of backover deaths occurred at home in the driveway, an apartment parking lot or in a townhome complex.
- Sports utility vehicles and trucks are involved in more backovers than cars.

Heat-Related Incidents

- A child’s body does not have the same internal temperature control as an adult’s and can warm three times to five times faster. Body temperature may rise to 106 degrees Fahrenheit within 10 to 15 minutes.
- Without emergency treatment, heat stroke can lead to death or permanent disability.
- From 1998 to 2011, 524 hyperthermia deaths have been reported as a result of an unattended child in a hot vehicle.
- As of November 2011, 30 children ages 14 and under died from hyperthermia in a vehicle during the first 11 months of the year. In 2010, 49 children died.
Since 1998, an average of 38 children have died from hyperthermia while unattended in a vehicle each year.

Since 1998, the age of children who have died from hyperthermia while unattended in a vehicle ranges from 5 days to 14 years of age.

Over 50 percent of hyperthermia deaths among children in vehicles occurred when a child was “forgotten” by a parent or caregiver, 30 percent of deaths occurred when a child gained access to an unattended vehicle and 17 percent occurred when a child was intentionally left in a vehicle.

Within 10 minutes, the inside temperature of a vehicle can be up to 20 degrees hotter than the outside temperature; after 30 minutes the vehicle's temperature can be up to 34 degrees hotter.

When the outdoor temperatures ranges from 72 to 96 degrees Fahrenheit, the average internal temperature of a vehicle can increase about 40 degrees within one hour.

The inside of vehicles can heat up rapidly, with the majority of the temperature rise occurring within the first 15 to 30 minutes, even with the windows “cracked”.

### Trunk Entrapment

- As of November 2011, three children have died from hyperthermia as a result of trunk entrapment during the first 11 months of the year.

### Laws and Regulations

- Nineteen states have laws that prohibit leaving children unattended in an automobile. Penalties for leaving children alone range from noncriminal traffic infractions to second-degree manslaughter charges if the child dies as a result of being left alone in the car.
- As of September 2001, all new vehicles are required to be equipped with a trunk release that glows in the dark.

![1998-2010 Hyperthermia Deaths Among Children](chart.png)