

Motor Vehicle–Related Injuries

Toddlers are often involved in pedestrian traffic injuries. Because of their gross motor skills of walking, running, and climbing and their fine motor skills of opening doors and fence gates, they are likely to be in hazardous areas when unsupervised. Unaware of danger and unable to approximate the speed of cars, they are hit by moving vehicles. Running after a ball, riding a tricycle, and playing behind a parked car are common activities that may result in a vehicular tragedy.

Toddlers playing in driveways or farmyards are at risk of back-over injury from vehicles in reverse gear. A precaution when children are playing in driveways is attaching a pole to the tricycle with a bright flag that is high enough to be visible through an automobile's back window. Another safeguard is the use of a device that beeps when the vehicle is driven in reverse to alert children to the oncoming car, van, tractor, or truck. Many vehicles now include a rearview motion camera so that the driver can see the driveway clearly while backing out. Physical barriers (fences or barricades) limiting children from playing near vehicles help prevent these injuries.

One type of injury that has become more commonplace occurs when children crawl into an open trunk and pull it closed. Asphyxia may occur in such cases; therefore, car trunks should not be left open when children are not being supervised. Some cars are equipped with a safety switch that can be activated from inside the trunk to open a closed trunk door.

Another automobile-related hazard for toddlers is overheating (hyperthermia) and subsequent death when left in a vehicle in hot weather ($>27^{\circ}\text{C}$ [80°F]). Small children dissipate heat poorly, and an increase in body temperature can cause death in a few hours. Since 1998, a total of 661 children died from hyperthermia when left alone in parked cars; in 2014, the total number of child deaths was 41, and it is estimated that an average of 37 children die each year from overheating in cars (Null, 2015). It is estimated that with the ambient temperature at 22° to 35.5°C (72° to 96°F), the vehicle interior temperature rises by 10.5° to 11°C (19° to 20°F) for each 10 minutes even with a window cracked (Duzinski, Barczyk, Wheeler, et al, 2014). Approximately 50% of adults who left a child in a car either forgot or were unaware that the child was still in the car