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SAFETY

CHILD SAFETY IN AND AROUND VEHICLES



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2 WHAT YOU SHOULD KNOW

Keeping children safe in and around vehicles involves more than just using appropriate child safety seats. Parents and caregivers must also take important steps to protect young children from the following risks:

- Hyperthermia (Heatstroke).
- Vehicle rollaways.
- Injuries from power windows or seat belts.
- Trunk entrapments.
- Backover accidents.
- Carbon monoxide poisoning.

Many accidents can be prevented with minimal effort. **Most importantly, never leave a child alone in or around a vehicle.**

Child Safety Seats

Refer to “Child Restraint Recommendations” for help selecting a child safety seat based on your child’s weight and age. Once you know the correct type of child safety seat for your child’s stage of growth, look for one that is compatible with your vehicle and that you can install correctly.

- Ask your vehicle’s manufacturer if they recommend particular brands of child safety seats for the make and model vehicle you own.
- The National Highway Traffic Safety Administration (NHTSA) rates child safety seats by how easy they are to install correctly. For more information, visit www.nhtsa.gov.
- Install the child safety seat according to the seat instructions and your vehicle’s instructions. Keep both sets of instructions in your glove compartment for future reference.
- Avoid seats that are too old. All manufacturers are required to include the model number and manufacture date on each seat they produce. It can be found on a label attached to the restraint usually on the bottom or the side of the seat. Most manufacturers recommend replacing any child safety seat over 6 years old.
- A certified child passenger safety technician can check the installation of your child safety seat and answer questions. To find a technician or an inspection station near you, go to www.nhtsa.gov.

4 CHILD RESTRAINT RECOMMENDATIONS

Birth — 12 Months

Your child under age 1 should always ride in a rear-facing car seat. There are different types of rear-facing car seats: Infant-only seats can only be used rear-facing. Convertible and 3-in-1 car seats typically have higher height and weight limits for the rear-facing position, allowing you to keep your child rear-facing for a longer period of time.

1 — 3 Years

Keep your child rear-facing as long as possible. It's the best way to keep him or her safe. Your child should remain in a rear-facing car seat until he or she reaches the top height or weight limit allowed by your car seat's manufacturer. Once your child outgrows the rear-facing car seat, your child is ready to travel in a forward-facing car seat with a harness.

4 — 7 Years

Keep your child in a forward-facing car seat with a harness until he or she reaches the top height or weight limit allowed by your car seat's manufacturer. Once your child outgrows the forward-facing car seat with a harness, it's time to travel in a booster seat, but still in the back seat.

8 — 12 Years

Keep your child in a booster seat until he or she is big enough to fit in a seat belt properly. For a seat belt to fit properly the lap belt must lie snugly across the upper thighs, not the stomach. The shoulder belt should lie snug across the shoulder and chest and not cross the neck or face. Remember: your child should still ride in the back seat because it's safer there.

Description (Restraint Type)

A rear-facing car seat is the best seat for your young child to use. It has a harness and in a crash, cradles and moves with your child to reduce the stress to the child's fragile neck and spinal cord.

A forward-facing car seat has a harness and tether that limits your child's forward movement during a crash.

A booster seat positions the seat belt so that it fits properly over the stronger parts of your child's body.

A seat belt should lie across the upper thighs and be snug across the shoulder and chest to restrain the child safely in a crash. It should not rest on the stomach area or across the neck.

Preventing Distracted Driving

When traveling with infants and young children, make sure they are properly restrained. Provide younger children with access to everything they need for the trip, including snacks and soft toys. Hard toys and other objects can become dangerous projectiles during hard braking and crash situations. If children require assistance while you are driving, pull over to a safe place, stop and assist them with their needs.

Drive defensively with both hands on the wheel. Keep your eyes on the road. Avoid the following distractions while driving:

- Dealing with children.
- Eating, drinking, smoking or personal grooming.
- Using mobile devices.
- Texting.
- Reading maps, directions or any written materials.
- Adjusting vehicle controls (for example, radios, CDs, TV, air conditioning).
- Reaching down or behind the driver's seat or picking up items from the floor.
- Opening the glove compartment.
- Responding to roadside distractions.

If you must do any of these, pull off the road to a safe place and stop safely.

6 RISKS INSIDE THE VEHICLE

Hyperthermia (Heatstroke)

Never leave children alone in a parked vehicle, even with the windows open. A vehicle's interior can reach deadly temperatures within 10 minutes, even with the windows cracked. A child's body overheats 3 to 5 times faster than an adult's body because the child absorbs more heat and sweats less. Children can suffer heatstroke within 10 minutes, causing high fever, seizures and damage to the brain and other vital organs. *Source: KidsAndCars.org*

Vehicle temperatures rise quickly, even with the windows cracked.

In Just:	Temperatures Rise:
10 minutes	19°F
20 minutes	29°F
30 minutes	34°F
60 minutes	43°F
1–2 hours	45–50°F

From a San Francisco State University study. Temperature increases may vary based on vehicle interior color.

Do not assume it is safe to leave children alone if the vehicle is running with the air conditioner on. A child could slip the vehicle into drive, get caught in a power window, be abducted or be inadvertently taken by a car thief.

Vehicle Rollaway

Most rollaway accidents begin when an unattended child releases the emergency brake or shifts the vehicle from park into gear. Once the vehicle is in motion, the child may become frightened and jump out of the vehicle, only to be injured or run over. A child can also be hurt inside a vehicle if it collides with another object.

Brake Transmission Shift Interlock (BTSI) technology forces a driver to depress the foot brake when shifting out of park. It can prevent children from accidentally putting a vehicle in gear.

Power Window Accidents

Each year, children are injured or killed in accidents involving power windows. According to the Insurance Institute For Highway Safety (IIHS), vehicle windows may bruise, dislocate, lacerate, fracture or crush body parts that become trapped in the windows. The most severe incidents occur when parents leave children unattended.

A child or adult may unintentionally lean, kneel or stand on the power window switch causing the window to close on an individual's head, hand or arm.

TYPES OF POWER WINDOW SWITCHES

Rocker	Pivots on a center hinge that allows you to press down on one side or the other to open and close a window.
Toggle	Moves back and forth to open and close a vehicle window.
Lever	Requires you to press down to open the window, but you must actively lift the switch to close the window.

If your vehicle's power windows feature rocker or toggle switches, consider replacing them with lever switches. All new vehicles are required to have this type of technology.

Some vehicles are equipped with automatic-reverse power windows. These windows function like elevator doors or garage doors, automatically opening when sensors detect an obstruction. Check your vehicle owner's manual to determine whether your vehicle features this technology.

Seat Belt Entanglement

Children can become entangled in vehicle seat belts. If a seat belt features a locking mechanism, it may retract and strangle the child. Also, children may become entangled in a seat belt when lying down or sleeping on the vehicle seat.

Trunk Entrapment

Children can become trapped in the trunk and suffer heatstroke or suffocate. They can access the trunk by using the trunk release button, or by climbing through a fold-down seat or other pass-through opening in the back seat of a vehicle. If your child is missing, immediately check your vehicle trunk. Every second counts.

All vehicles manufactured after September 2001 are equipped with a glow-in-the-dark release handle inside the trunk compartment. If you own an older vehicle, ask your mechanic or a nearby dealership to retrofit it with an emergency trunk release. Teach your children how to locate and use the emergency trunk release.

8 RISKS AROUND THE VEHICLE

Backover Accidents

Backover accidents occur when a driver — generally a parent, family member or friend — backs into a child or other pedestrian or cyclist. These accidents typically occur at low speeds as the driver exits a driveway or parking space. They are more likely to happen if you own a large vehicle, such as a van, truck or SUV with reduced visibility.

Every vehicle has blind zones — areas around the vehicle that are not visible from the driver seat. Generally, the longer and taller your vehicle, the bigger its blind zone area. Blind zones are also affected by the following: driver height, driver seat height, shape of the vehicle's windows and mirrors, and the driveway or street incline.

The following safety technologies can help prevent backover accidents, but they are not fully reliable in detecting children. Do not rely on these devices alone. The best way to detect children around your vehicle is to walk around it to make sure no one is in the way. As soon as you get inside, roll down the windows so you can hear what is going on nearby.

DETECTION DEVICES

Rear Camera Systems	Displays the area behind a vehicle on a screen mounted on the instrument display. These systems are most effective as parking aids.
Radar And Ultrasonic-Based Systems	Warns drivers when an obstacle is detected near rear tires and bumpers. They emit a beeping sound or warning lights to notify a driver as the distance closes between the vehicle and an object or individual.
Auxiliary Mirrors	May be mounted on existing sideview mirrors to reduce a vehicle's blind zone.

School Bus Safety

School-age children should be cautious of the danger zone around a school bus — the area on all sides of the bus where children are in the most danger of being hit. Teach children to stay 10 feet away — or take “5 giant steps” — out from the front of the bus before crossing so they can be seen by the driver. Check with your school or police department for information on school bus safety. For more information on school bus safety, visit www.nhtsa.gov.

REDUCING RISKS INSIDE THE VEHICLE

- Never leave children unattended in a vehicle.

- Store vehicle keys and remote entry devices out of children's reach.

- Always lock the vehicle doors and trunk, especially at home.

- Take steps to remember when your child is with you in the vehicle.
 - Install the child safety seat where it is visible from the rearview mirror.
 - Put the diaper bag or a stuffed animal in the front passenger seat to remind you that your child is with you in the vehicle.
 - Make a habit of looking through the vehicle before walking away from it.
 - Take extra precautions if you change your routine when taking your child to day care. Ask your day care provider to call you immediately if your child does not arrive for day care.

- Teach children that vehicles are not toys for playing in or hiding inside.

- If you see a child alone in a hot vehicle, call the police.

If the child is in distress due to the heat:

 - Get the child out as quickly as possible.
 - Cool the child rapidly.
 - Call 9-1-1 immediately.

Warning signs of a heatstroke may vary, but include:

 - Red, hot, and moist or dry skin.
 - No sweating.
 - A strong rapid pulse or a slow weak pulse.
 - Throbbing headache.
 - Dizziness.
 - Nausea.
 - Confusion.
 - Grouchiness.
 - Acting strangely.

- Set the emergency brake every time you park.

- Properly restrain children in child safety seats or seat belts to prevent them from accidentally activating power windows.

- Lock power windows.

- Teach children not to play with or stand on window switches.

REDUCING RISKS INSIDE THE VEHICLE *CONTINUED*

- Make sure children are out of the way before raising power windows.
- Teach children that seat belts can be dangerous and are not toys.
- Buckle unused seat belts. Make sure excess strapping is fully retracted.
- Keep the rear fold-down seats upright and locked to keep children from climbing into the trunk from inside your vehicle.
- Install a glow-in-the-dark trunk release handle in your vehicle, if not already there.
- Secure unrestrained objects that could become projectiles in an accident or during deceleration. Put small items in the glove compartment and larger items in the trunk.

REDUCING RISKS AROUND THE VEHICLE

- Know where children are before moving a vehicle.
- Have children play in the backyard instead of the driveway or front yard.
- Teach children not to leave toys or sports equipment in the driveway.
- Never leave a child alone and unattended in or around a vehicle.
- Before getting into your vehicle walk around it to confirm children are not in the way.
- Before backing up your vehicle open the windows so you can hear if children are nearby.
- Check your mirrors when backing up.
- Be familiar with your vehicle's blind zones. Steep inclines and large SUVs, vans and trucks create larger blind zones.
- Install a rearview camera, audible collision detector or other back-up detection device in your vehicle.
- Teach children to move to a safe area away from the vehicle when a driver is backing up.

REDUCING RISKS AROUND THE VEHICLE *CONTINUED*

- Teach children to recognize reverse lights. Teach them that “parked” vehicles might move.
- Hold your child’s hand when walking through parking lots or other areas where vehicles are moving.
- Trim landscaping around the driveway so drivers can see the sidewalk, street, children and other pedestrians. Your vehicle should be clearly visible to pedestrians as well.
- To avoid carbon monoxide poisoning, never leave your vehicle running in an enclosed space like a garage.
- Teach children about school bus safety.
 - When getting off the bus, stay away from the danger zone and wait for the driver’s signal. The danger zone is the area on all sides of the bus where children are in the most danger of being hit. Children should stay 10 feet away from the bus (or as far away as they can) and never go behind it.
 - Board the bus one at a time.
 - Before stepping off the bus be sure no vehicles are passing on the shoulder (side of the road). Move away from the bus.
 - Before crossing the street, take “5 giant steps” out from the front of the bus, or until the driver’s face can be seen.
 - Wait for the driver to signal that it is safe to cross.
 - Look left-right-left when coming to the edge of the bus to make sure traffic is stopped. Watch traffic when crossing.

Source: The National Highway Traffic Safety Administration (NHTSA).

12 NOTES

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