Child Safety In and Around Vehicles
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

➢ www.nhtsa.gov
What You Should Know

- Injuries from power windows or seat belts
- Trunk entrapments
- Backover accidents
- Carbon monoxide poisoning

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

  www.nhtsa.gov
Did You Know?

- Children ages 2 to 5 who use safety belts prematurely are four times more likely to suffer a serious head injury in a crash than those in child safety or booster seats. [NHTSA.gov](http://NHTSA.gov)

- Of those Texas children ages 8 and under who died in vehicle crashes in 2013, 31 percent were unrestrained. [CRIS at TxDOT.gov](http://CRIS at TxDOT.gov)

- Children should ride in the back seat until they are at least 13 year old. [www.safekids.org](http://www.safekids.org)
Child Safety Seats

- The National Highway Traffic Safety Administration (NHTSA) has recommendations on selection of Child Safety Seats and lists of safety features by vehicle make and model.

- NHTSA rates child safety seats by how easy they are to install correctly.

- See all of this information and more at NHTSA’s Parents Central:
  http://www.safercar.gov/cpsApp/crs/index.htm#
Child Safety Seats

- Install the child safety seat using its instructions and your vehicle’s instructions. Keep both sets of instructions in your glove compartment for future reference.

- Avoid seats that are too old. The model number and manufacture date are on every seat. They can be found on a label attached to the seat usually on the bottom or the side. 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 or www.seatcheck.org or www.cert.safekids.org
## Child Restraint Recommendations

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth- 12 Months</td>
<td>Your child under age 1 should always ride in a rear-facing car seat. Infants-only seats can only be 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.</td>
</tr>
<tr>
<td>1-3 Years</td>
<td>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 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.</td>
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[www.nhtsa.gov](http://www.nhtsa.gov)
# Child Restraint Recommendations

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Recommendation</th>
</tr>
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<tbody>
<tr>
<td>4-7 Years</td>
<td>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.</td>
</tr>
<tr>
<td>8-12 Years</td>
<td>Keep your child in a booster seat until he or she is 4’9” tall, 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. <strong>Remember: Your child should still ride in the back seat because it’s safer there.</strong></td>
</tr>
</tbody>
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[www.nhtsa.gov](http://www.nhtsa.gov)
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.

www.nhtsa.gov
Preventing Distracted Driving

- 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

www.nhtsa.gov
Preventing Distracted Driving

- Reading maps, directions or any written materials
- Adjusting vehicle controls (radio, 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.  
  www.nhtsa.gov
Hyperthermia (Heatstroke)

Never leave children alone in a parked vehicle, even with the windows open. A vehicle’s interior can reach deadly temperature 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, damage to the brain and other vital organs, and death.

Source: KidsAndCars.org
Nearly 70% of children left in vehicles are left by a caretaker. Maybe it’s an overworked parent who forgets to drop off their child at daycare, or a relative who thinks the child will be okay “for just a few minutes.”

Another 18% of the kids crawl into the vehicle themselves. Source: National Safety Council

SAFETY TIPS:
- Put something you need on that trip in the backseat (a purse or briefcase) or place a stuffed animal in the front seat to reminds you the child is there.
- Use drive-through when possible.
- Arrange for daycare to call when a child hasn’t been dropped off or have your partner cross-check with you.
Source: National Safety Council
Vehicle temperatures rise quickly, even with the windows cracked.

<table>
<thead>
<tr>
<th>In just:</th>
<th>Temperatures Rise:</th>
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<tbody>
<tr>
<td>10 minutes</td>
<td>Nineteen Fahrenheit</td>
</tr>
<tr>
<td>20 minutes</td>
<td>Twenty-nine Fahrenheit</td>
</tr>
<tr>
<td>30 minutes</td>
<td>Thirty-four Fahrenheit</td>
</tr>
<tr>
<td>60 minutes</td>
<td>Forty-three Fahrenheit</td>
</tr>
<tr>
<td>1-2 hours</td>
<td>Forty five to Fifty Fahrenheit</td>
</tr>
</tbody>
</table>

Source: KidsAndCars.org

For Information Contact:

Safe Kids Texas
Heatstroke Task Force
512-422-7085
humphreys.johnny@gmail.com
Vehicle Rollaway and Other Risks

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 causing the vehicle to rollaway, get caught in a power window, be abducted, or be inadvertently taken by a car thief.

Source: KidsAndCars.org
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.

Source: KidsAndCars.org
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.

Source: KidsAndCars.org
## Risks Inside The Vehicle

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.

### Types of Power Window Switches

<table>
<thead>
<tr>
<th>Switch Type</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Rocker</strong></td>
<td>Pivots on a center hinge that allows you to press down on one side or the other to open and close a window.</td>
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<tr>
<td><strong>Toggle</strong></td>
<td>Moves back and forth to open and close a vehicle window</td>
</tr>
<tr>
<td><strong>Lever</strong></td>
<td>Requires you to press down to open the window, but you must actively lift the switch to close the window.</td>
</tr>
</tbody>
</table>

Source: KidsAndCars.org
Risks Inside The Vehicle

❖ 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 climbing through a fold-down seat or other pass-through opening in the bench 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 nearby dealership to retrofit it with an emergency trunk release. Teach your children how to locate and use the emergency trunk release.

Source: KidsAndCars.org
Risks Inside The Vehicle

❖ Seat Belt Entanglement

- Children can become entangled in vehicle seat belts. If a seat belt features a locking retractor 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.

Source: KidsAndCars.org
Backover Incidents

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

Source: NHTSA
Backover Incidents

- 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.

Source: NHTSA
Backover Incidents

The following safety technologies can help prevent backover incidents, 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.

Source: NHTSA

<table>
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<th>DETECTION DEVICES</th>
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<tr>
<td>Rear Camera System</td>
<td>Displays the area behind a vehicle on a screen mounted on the instrument display. These systems are most effective as parking aids.</td>
</tr>
<tr>
<td>Radar And Ultrasonic-Based Systems</td>
<td>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 distances closes between the vehicle and object or individual.</td>
</tr>
<tr>
<td>Auxiliary Mirrors</td>
<td>May be mounted on existing side view mirrors to reduce a vehicle’s blind zone.</td>
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</table>
Safety Tips:

- REDUCING RISKS INSIDE THE VEHICLE

- Never leave children unattended in a vehicle.
- Store vehicle keys & remote entry devices out of children's reach.
- Always lock the vehicle doors & 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 rear-view 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.

Source: NHTSA
Safety Tips:

- 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.

Source: NHTSA
Safety Tips:

- If you see a child alone in a hot vehicle, call the police at 911 immediately.

- If the child is in distress due to the heat, get the child out as quickly as possible.

- Cool the child rapidly.

Source: NHTSA
Safety Tips:

- Set the emergency brake every time you park.

- Lock the vehicle after everyone is out of it.

- 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.

Source: NHTSA
Safety Tips:

- 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.

Source: NHTSA
Safety Tips:

- Install a glow-in-the-dark trunk release handle in your vehicle if one is not already there.

- Secure unrestrained objects that could become projectiles in an crash or during deceleration. Put small items in the glove compartment and larger items in the trunk.

- Know where children are before moving a vehicle.

Source: NHTSA
Safety Tips:

- Reducing Risks Outside the 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.

Source: NHTSA
Safety Tips:

- Before backing up your vehicle, walk around it to confirm children are not in the way.

- Check your mirrors when backing up.

Source: NHTSA
Safety Tips:

- Be familiar with your vehicle's blind zones.
- Install a rear-view 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.

Source: NHTSA
Safety Tips:

- 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.

Source: NHTSA
Safety Tips:

- 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.

Source: NHTSA
For More Information contact us at

safe.communities@tamucc.edu

Or search:

www.nhtsa.gov
www.safercar.gov/cpsApp/crs/index.htm#
www.safekids.org
www.KidsAndCars.org
www.txdot.gov
www.usaaaedfoundation.org