Motor Vehicle Safety for Kids

www.connecticutchildrens.org/ipc
Kids and Cars – What You Need to Know

• Why is motor vehicle safety important?
• What do I tell parents about car seats?
  – The Law vs Best Practice
• What do I tell parents about teen drivers?
• How do I use available handouts/resources?
Why focus on motor vehicle safety?

### 10 Leading Causes of Injury Deaths by Age Group Highlighting Unintentional Injury Deaths, United States – 2008

<table>
<thead>
<tr>
<th>Rank</th>
<th>&lt;1</th>
<th>1-4</th>
<th>5-9</th>
<th>10-14</th>
<th>15-24</th>
<th>25-34</th>
<th>35-44</th>
<th>45-54</th>
<th>55-64</th>
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<tr>
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<td>Homicide Unspecified 155</td>
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<td>Homicide Firearm 4,394</td>
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<td>3</td>
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<td>Homicide Unspecified 8</td>
<td>Unintentional Fire/Burn 111</td>
<td>Suicide Suffocation 141</td>
<td>Homicide Firearm 3,168</td>
<td>Homicide Firearm 3,612</td>
<td>Suicide Firearm 2,786</td>
<td>Suicide Firearm 2,357</td>
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<td>Adverse Effects 32</td>
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What Happens in a Crash?
(aka, why do you need to keep a child in a car seat?)

Crash Forces:

• **Weight X Acceleration (G’s) = Restraining Force**

• **Approximation For Parents:**
  Weight X Speed = Force

• **Example:** 10-lb baby X 30 mph = 300 lb.
Why are Car Seats Important?

- 71% effective in reducing deaths for infants
- 54% effective in reducing toddler deaths
- Reduce the need for hospitalization by 69%
- Highly cost effective investments
What do I tell parents?

Law in Connecticut vs Best Practice
# Car Seat Safety Chart

**Pediatric Trauma Program & Injury Prevention Center**

<table>
<thead>
<tr>
<th>Best Practice</th>
<th>Infant (0-2 yrs)</th>
<th>Toddler</th>
<th>Young Children</th>
<th>Pre-Teens</th>
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</thead>
<tbody>
<tr>
<td>Rear-facing until 2 years old or until child reaches height or weight limit of the car seat.</td>
<td>Car seat with a 5-point harness, until child reaches height or weight limit of the car seat.</td>
<td>Booster seat until 4’9” tall.</td>
<td>Back seat rider until 13th birthday.</td>
<td></td>
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<td>Rear-facing until 1st birthday and 20 pounds.</td>
<td>Car seat appropriate to child’s weight and height</td>
<td>Car seat or booster seat until 7 years old and 60 pounds.</td>
<td>Must use a seat belt with shoulder harness and lap belt.</td>
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<tr>
<td>Safest place for a car seat is the center rear seat. Keep chest clip at armpit level.</td>
<td>Harness straps should be snug. Forward-facing car seats should be upright.</td>
<td>In a booster seat, seat belt should always be on the child’s collarbone and hip bones.</td>
<td>Make sure everyone in the vehicle is wearing a seat belt too.</td>
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</tr>
</tbody>
</table>

**Make every trip a safe one!**

[www.connecticutchildrens.org](http://www.connecticutchildrens.org) • 860-545-9000
AAP Recommendation

• AAP released new recommendations on child passenger safety in March 2011
• 5 recommendations available April 2011 issue of Pediatrics or available online at healthychildren.org
AAP Recommendation # 1

All infants and toddlers should ride in a **rear-facing** car safety seat (CSS):

– until they are 2 years of age
– or until they reach the highest weight or height allowed by the manufacturer of their CSS
Practical Implications

• Parents will most likely need an infant seat and then a convertible seat (a seat that goes both rear-facing and forward-facing) to accomplish this

• CT law only states children need to be rear-facing until they are one year old and 20 pounds

• Even if feet touch or knees bend at back of seat, children are still safer rear-facing
Education for Parents

Infants Should Be in Rear-Facing Car Seats Until They Are 2 Years Old

or until they reach the height or the weight limit of their car seat.

CT law requires infants to ride rear-facing until they are a minimum of one year old and 20 pounds.

Route harness straps in lower slots at or below shoulder level. Keep harness straps snug and fasten harness clip at armpit level.

Has your car seat expired? Check the back or bottom of the seat for the expiration date. Use LATCH or seatbelt, but not both. Recline a rear-facing seat at about a 45 degree angle. A firmly rolled up towel under the car seat may help.

Infants must ride in the back seat facing the rear of the vehicle. This offers the best protection for your infant’s head, neck and spine.
AAP Recommendation #2

“All children 2 years or older, or those younger than 2 years who have outgrown the rear-facing weight or height limit for their CSS, should use a forward-facing CSS with a harness for as long as possible, up to the highest weight or height allowed by the manufacturer of their CSS.”
Practical Implications

• CT law does not specifically mandate how long children must stay in 5-point harnesses or when they can transition to booster seats

• Height and weight limits vary on car seats, so the parent should look at their specific model for details
Education for Parents

Toddlers Should Be Forward-Facing Only After They Outgrow Their Rear-Facing Car Seats.

- Attach the top tether strap to the tether anchor (tether anchors are available in most cars 1999 or newer).
- Read owner’s manual for information on which harness slots should be used forward-facing. Keep harness straps snug.
- Fasten harness clip at armpit level.
- Place car seat in upright position.

Keep Kids in Car Seats Longer: Even kids 4 years old and older should remain in a car seat until they reach the height or weight limit of their car seat. Once reached, then kids can be in a booster seat.
AAP Recommendation #3

All children whose weight or height is above the forward-facing limit for their CSS should use a belt-positioning-booster:

– until the vehicle lap-and-shoulder seat belt fits properly
– typically when they have reached 4 feet 9 inches in height and are between 8 and 12 years of age
Practical Implications

CT law:

• Must use a car seat or booster seat until child is at least 7 years old AND 60 pounds
• Booster seat must be used with lap and shoulder belt
• Penalty for violators of the car seat law = $92 fine and attend a 2 hour car seat education class at DMV

Note: Driver gets the ticket
Kids Should Be in Booster Seats Until the Seat Belt Fits

usually until they are between 8 to 10 years old.

Connecticut law requires children to be in a booster seat until they reach a minimum of 60 pounds and they turn 7 years old.

If your vehicle has a low back seat and your child's ears are above it, you need a high back booster seat to protect her head.

A booster seat makes the lap and shoulder belt fit correctly: fitting on the collar bone and hip bones.

Booster seats must be used with a seat belt that has a lap and shoulder belt, not just a lap belt. Kids this size are too small to fit correctly in an adult seat belt alone.

Violators of the Connecticut car seat law must pay a fine and attend a 2-hour educational car seat class at the Department of Motor Vehicles.
AAP Recommendation #4

“When children are old enough and large enough to use the vehicle seat belt alone, they should always use lap-and-shoulder seat belts for optimal protection.”
5-Step Test

1. Does the child sit all the way **back** against the vehicle seat?
2. Do the child’s **knees** bend comfortably at the edge of the vehicle seat?
3. Does the seat belt cross the **shoulder** between the neck and arm?
4. Is the lap belt as low as possible, touching the **thighs**?
5. Can the child stay **seated** like this for the whole trip?
AAP Recommendation #5

“All children younger than 13 years of age should be restrained in the rear seats of vehicles for optimal protection.”
Practical Implications

- Unfortunately, CT does not have a law about kids in the back seat.
- Keeping kids safe in the back seat is based on size, physical development and behavior.
- Many car visors have statements about kids 12 and under being safest in the back seat.
Teen Driving

• #1 Cause of death for teens = motor vehicle crashes
• Approximately 4,000 die each year; 450,000 injured; 27,000 require hospitalization
• AAP updated policy in 2006
TEEN ACCIDENTS IN CT

• Crash rate /10,000 population
  • 16-17 year-olds ~50% higher than for 35-49 year-olds
• 75% of 16- and 17-year-old driver at fault in crashes
  • Following too closely and speed
• Fatal teen crashes are more likely to occur between the hours of 9 p.m. and midnight
  • Passengers contributing factor to these fatalities

Preusser Research Group of Trumbull, which conducts federal studies of crash data, and Centers for Disease Control and Prevention, statistics about Connecticut
FACTS-DISTRACTIONS

• 25% of teen driver crashes are caused by driver inattention

• Cell phone use is associated with 4 fold increase of likelihood of serious crash resulting in hospitalization of driver
FACTS: NUMBER OF PASSENGERS

• Teen’s risk for crash doubles by carrying 1 passenger
• By carrying 2 passengers, risk increases by 150%
• By carrying 3 or more passengers, risk increases by 500%
GDL

3 Stages:

• Learner’s period
• An intermediate license (limits driving in high risk situations except with supervision)
• A license with full privileges, after completing first 2 stages
WHY GRADUATED DRIVER'S LICENSE

Another national evaluation studied the relationship between teenage crash fatalities during 1992-2002 and the strength of graduated licensing laws, based on criteria developed by the insurance Institute for Highway Safety.

Reported reductions in 15-17-year-old crash deaths were found from having a 3-stage system.
GDL Law in CT

Graduated Driver Licensing
Summary of Connecticut Law

Obtaining your learner’s permit
- Must be at least 16 years old.
- Must pass a 25 question test.
- Bring your birth certificate or passport; an additional form of ID (for a list go to www.ct.gov/dmv); parental consent; proof of residence (a piece of addressed mail); $40 for the test; and, $18 for the permit.

Rules for learner’s permit holders
- May only drive when supervised.
- No passengers except for a licensed driving instructor, or parents (must have license), or someone instructing the permit holder who is a licensed driver at least 20 years old (has had license for 4 years, no suspension in last 4 years).

Getting your license
- Required to have had a learner’s permit for at least 120 days (if enrolled in a driving school), or 180 days (if home taught) before applying.
- Completed 30 hours of classroom instruction and 40 hours of on-the-road training. A parent/legal guardian must take a 2-hour course.
- Pass a Road Skills Test at the DMV.
- Bring your learner’s permit; a vehicle for the road test; insurance card; the “qualified trainer” who will sign your application; and a $66 to $77 license fee.

Rules for all 16 and 17 year old drivers
- No driving from 11 pm to 5 am, unless for school, job, religious, or medical necessity, or Safe Ride Program.
- No cell phone use, no hands-free cell phone use, no texting, no mobile electronic device use allowed.
- No passengers in the first six months of licensure, exceptions are the same as for the learner’s permit period (see above).
- No passengers in the second six months of licensure, except for members of driver’s immediate family.
- All passengers must wear seat belts, regardless of age, or be in an appropriate child passenger restraint (car seat).

48-hour suspension for 16 and 17 year old drivers
- Passenger, curfew, DUI, speeding over 20 mph, racing, and reckless driving violations will result in having your license seized on-the-spot by police and car towed.

For more detailed information on the graduated driver licensing law for teens in Connecticut visit www.ct.gov/teendriving
AAP Policy Recommendations for Anticipatory Guidance

– Know your state laws
– Distribute educational materials
– Alert parents and teens to the risks
– Encourage seat belt use
– Discourage distracted driving
– Encourage parent-teen agreements/contracts
– Encourage parents to require that teens drive a safe vehicle
– Advise parents that they have the authority to prevent their teen from driving
– Encourage Parents to be positive role models
– Advise parents about driver education

• “The Teen Driver” AAP Policy Statement, 2006
MODEL Parent-Teen Driving Contract for Connecticut

An agreement between teen drivers and their parents/legal guardians is a proven way to help in making the first years of driving safer. Motor vehicle crashes remain the #1 killer of teens. Take the time to make an agreement and then live up to it, obey the rules, enforce the consequences. Talk this over and then sign it.

☐ Seatbelts: I understand that under the law I must wear a seatbelt and that I am responsible for making sure that every passenger in my car is also belted, no matter what their age.

☐ Distracted Driving: Driving while talking on a cell phone, even when hands-free for teens; and texting while driving is illegal in CT. I agree to pull over or stop somewhere before using a phone or other electronic device.

☐ Night Driving: I understand that under the law I may not drive between 11 pm and 5 am.

☐ Cruising/Joyriding: I agree not to cruise/joyride, meaning that I will only drive between point A and point B for a purpose and will seek permission to drive every time I use the car.

☐ Passengers: Under the law I know that I am not allowed to have other teen passengers in my car during the first 12 months that I have my license.

☐ Alcohol Consumption: I understand that under the law I am not legally able to purchase or possess alcohol. I agree not drive after drinking or to be a passenger in a car driven by someone else who has been drinking. I understand that I can call my parent or legal guardian to pick me up if I have a problem and need a ride.

☐ Speeding and the Rules of the Road: I understand that it is illegal to drive over the posted speed limit. I agree to drive at a reasonable speed and to obey stop signs and traffic signals. I further agree to pause and lock left, right, and left again before proceeding through any intersection at which I am stopped.

☐ Violations of the Above Rules: For any of the rules above, a violation includes being ticketed by police, being warned by police, or being observed by neighbors, family, or friends engaged in the prohibited behavior. I agree to a day suspension of driving privileges for the first offense and a day suspension for each additional offense. I will give my keys and license to my parent to hold during the suspension period. [Write-in the agreed upon number of days on the lines above]

By signing you agree to be bound by this contract:
I agree to give my teen supervised driving experience. After they have their license I agree to give them use of a vehicle and to give them a ride home any time day or night should they find themselves in a bad situation or otherwise need help.

<table>
<thead>
<tr>
<th>PARENT LEGAL GUARDIAN</th>
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<td>I agree to abide by the laws and the rules stated above</td>
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<th>TEEN DRIVER</th>
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AAP e-Network

Learning to Drive

Connecticut’s Graduated Drivers License System
Phases in driving privilege
Lowers crash risk by 40%
E-Network Requirements

• Wi-fi in the office
• 2 Android tablets (provided by CT AAP)
• Designated staff person

Future planned topics:
• Choking prevention
• Child Motor Vehicle Occupant Safety
• Bike/Pedestrian Safety
Summary

• Motor Vehicle Injuries and deaths are preventable
• Consistently provide resources and highlight key points for parents and patients
• Encourage Parents/Teens discussion
• Contact us for ANY questions, more information, hand-outs and additional resources
Questions?
Contact Information

• Steven Rogers, MD, CPST
  – scrogers@ccmckids.org
  – 860-545-8164

• Karen Brock Gallo, MPH
  – kbrock@ccmckids.org
  – 860-545-9977

• Kevin Borrup, JD, MPA
  – kborrup@ccmckids.org
  – 860-545-9984
More Information

Website
Injury center email
Address
etc
Laws in Other States

• If you need car seat laws or GDL for other states, visit the Insurance Institute for Highway Safety website: www.iihs.org