

Training for Safely Transporting Children



Training for Safely Transporting Children

Student Handbook





(Place holder for letter from IHS Injury Prevention Program Manager)



Table of Contents

Pre - test	4
Chapter 1: Introduction	6
Post Test	13
Chapter 2: What happens in a crash?	15
Chapter 3: Seatbelt Systems	23
Chapter 4: Systems that don't pre-crash lock	29
Chapter 5: Lower Anchors and Tethers for Children	35
Hands-on exercise #1	39
Chapter 6: Child restraint basics	40
Chapter 7: Rear-facing child restraints	45
Hands-on exercise #2	51
Chapter 8: Forward-facing child restraints	52
Hands-on exercise #3	59
Chapter 9: Community CPS checkup event	60
Child Passenger Safety Checklist	62
Evaluation	64
Glossary	65



Training for Safely Transporting Children

Pre/Post Test

Name:	
-------	--

- 1. Tough choices are made by:
 - A. you
 - B. parent/caregiver
 - C. police officer
- 2. Encourage parents to read manufacturer's instructions of
 - A. child restraint
 - B. motor vehicle
 - C. both A and B
- 3. What is the most common type of collision?
 - A. Rear-end
 - B. Frontal
 - C. Horse
 - D. Side
- 4. How do restraints reduce or prevent injuries?
 - A. Keeps people in the vehicle
 - B. Spreads out the force
 - C. Protects the head and spinal cord
 - D. All of the above
- 5. The webbing is the part of the seat belt that:
 - A. Stretches in a crash
 - B. Holds the person to the vehicle
 - C. Both A and B
- 6. What are the types of pre-crash locking seat belt systems?
 - A. Switchable
 - B. ALR
 - C. Both A and B
- 7. The two types of pre-crash locking retractors are:
 - A. Switchable and Emergency Locking
 - B. Automatic locking and Switchable
 - C. Both A and B
- 8. Use a locking clip if the vehicle system has:
 - A. Automatic locking retractor and sewn-on latch plate
 - B. Emergency locking retractor and sliding latch plate
 - C. Lap belt and locking latch plate



Training for Safely Transporting Children

Pre/Post Test

Name:							
-------	--	--	--	--	--	--	--

- 9. What does LATCH stand for?
 - A. Lower Anchors Tethers for Children
 - B. Less Anchovies To Chill
 - C. Little Athletic Toys for Children
- 10. Where can a top tether anchor be found?
 - A. On the roof
 - B. On the back of the seat
 - C. Either A or B
- 11. The best child restraint is one that:
 - A. Matches the interior color of your vehicle
 - B. The most expensive seat you can buy
 - C. Fits the child, fits the vehicle, and will be used correctly every time
- 12. The elements of correct installation to consider when selecting your child restraint are:
 - A. Selection, Direction, Location, and Installation
 - B. Rear-facing, forward-facing, booster, and seatbelts
 - C. Shell, harness, retainer clip, and buckle
- 13. The CR that provides the **best** protection for a 13 month old who weighs 23 pounds is a:
 - A. Rear-facing infant CR that goes to 22 pounds
 - B. Rear-facing convertible or infant CR that goes to 30 pounds rear-facing
 - C. Forward facing convertible that goes to 40 pounds
- 14. Rear-facing CR should be installed at a angle.
 - A. 60°-70°
 - B. 30°-45°
 - C. 20°-30°
- 15. Children should stay in a booster seat until they:
 - A. can pass the 5-Step Test
 - B. are 40 lbs.
 - C. are ready to drive
- 16. A child is ready to be forward-facing when they:
 - A. have reached the weight limit of their rear-facing seat
 - B. are at least 1 year old and 20 pounds
 - C. both A and B



1

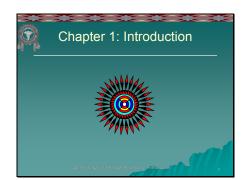


Welcome to the SNAP training.

"SNAP" is an acronym for Safe Native American Passengers. This training was developed to help people like yourselves to transport children safely in American Indian and Alaska Native communities.

Throughout this training we will be referring to American Indian and Alaska Native communities as "Native American".

2



Teacher(s) and participants will briefly:

- introduce themselves,
- tell their experience with child passenger safety (CPS).
- share their reason for coming.

Notes to the SNAP Teacher will be denoted in parentheses and italics. (Complete pretest)

3



- Fewer parents in Native American communities use child restraints (CR) than parents in other places. This means Native American children are getting hurt more often than other children in motor vehicle crashes. We need more people from these communities to be trained in CPS. This can lower the risk of our children getting hurt.
- Traffic crashes can happen to anyone at any time. In most cases, child passenger injuries and deaths can be prevented.
- Teaching others about seat belts, air bags, and CR systems help save lives and prevent injuries; they need to be used every time and used properly.
- We can make a difference before a crash occurs.





This training gives participants a basic overview of how to properly use CR. A "restraint" is a seatbelt or child seat that holds, or restrains people in a vehicle.

At the end of this training, participants will be able to:

- Understand a basic overview of CR and other restraint systems
- Develop skills through hands-on exercise and discussions
- Recognize & correct misuse
- Identify recalls of restraints
- Educate parents/caregivers why they should use CR and recommend the right restraint for children of different ages
- Encourage parents to read manufacturer's instructions of CR and the motor vehicle.

Participants will NOT be able to:

- Serve as a technical expert
- Teach SNAP To teach SNAP you need to become a certified CPS technician. We'll talk more about certification later.

(Review course agenda)

This training covers the basics of:

- What happens in a crash
- Seatbelts, air bags and CR and how they work together
- Correct installation of CR and misuse of CR

You will practice installing several different CR and you will practice being able to tell when they are installed in the wrong way. You are encouraged to ask questions to make sure you understand the concepts.

Hands-on exercises will take place in the classroom and outside in vehicles regardless of the weather.

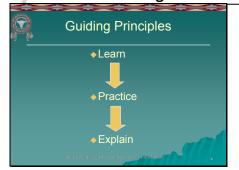
There will be a short 2 question quiz after each chapter. (*Hand out post test*)

There will be a CR checkup event to practice the skills you learn today. (*Announce the day and time of checkup event*). We will discuss the checkup event later in the training.

Students should dress comfortably for the checkup event and be prepared to get in and out of vehicles.







Your role as someone trained in CPS is to learn, practice and explain. Learn, Practice, Explain applies to you and certified CPS technicians, instructors, and parents/caregivers. The Learn, Practice, Explain principle begins today and continues as you use your skills.

- <u>Learn</u> the information taught and seek ways to stay updated.
- <u>Practice</u> your new skills/information. Look for ways to practice and share new information.
- Explain (educate) what you have learned to parents/caregivers.

SNAP is an introductory training. You are not expected to know all the answers. If a parent/caregiver asks a question you do not know the answer to, it is okay to tell them "I don't know, but I will find out".



As you learn, practice and explain you will need to keep a couple of things in mind: Best Practice and Tough Choices.

Best practice is the gold standard of protection. It is the most acceptable way to transport a child safely on the basis of the child's age, weight, height, and body development.

Often, parents/caregivers do not choose the best practice because they do not understand the reason for it. It is your job to understand the reason and explain it to them in clear and simple terms.

Example: Many parents will think that their 5 year old is too big for a "car seat". Best practice for a 5-9 year-old child is to use a booster seat with a lap/shoulder belt in the vehicle.

Tough choices are made when there may not be a clear answer for the safest way to transport a child. Parent/caregivers will then need to decide among the options.

In many cases, there will be best practices related to the tough choices. You must provide parent/caregivers with available options. Then they can make the tough choices about how best to restrain their own child.

Example: Where do you put three children and a driver in a single cab pick-up truck that has three seatbelts?



Some options:

- Use a different vehicle with more seating,
- leave the children at home or,
- tell the parent/caregiver "I can't tell you a safe way to do this".

TOUGH CHOICES ARE ALWAYS MADE BY THE PARENT/CAREGIVER



To be safe, everyone who rides in the vehicle needs to wear a seat belt.

Many Native American communities use pick up trucks or community vans as their main way to travel. Sometimes you may see people riding in the bed of pickup trucks.

Remember, there is no safe way to ride in the bed of a pickup truck.

Some families also use community vans for travel to appointments without using a CR.

The standards for pickup trucks and community vans are the same as passenger cars. So it is important to use a CR with these vehicles. This may mean the community van will need to have CR or the family will need to bring their own CR.

Tough Choices

Vehicles not designed for CR

Off road vehicles (ATV's)
Snow mobiles
Fan/Air boats
Small airplanes
Safer choices
Use another vehicle
Limit travel time
Check on the child
CR not approved for off road vehicles

Some Native American communities are faced with a tough choice when transporting children.

Sometimes their only option is to use vehicles that are not designed for CR.

Off road vehicles such as ATV's, snow mobiles, fan/air boats and small airplanes are often used by Native Americans that don't have a road system or live in an isolated area.

In these situations, there may not be a safe option to use a CR.

Safer choices may be:

- Use another vehicle
- Limit the amount of travel time and use the proper safety equipment (i.e. helmets)
- Frequently check to make sure the child is okay

Indian Health Service Injury Prevention Program



No CR manufacturer approves their CR to be installed in vehicles that are not designed for CR

10



Another consideration to keep in mind is diversity. Although Native Americans are similar in many ways to non-native populations and communities, there are also many differences. Remember that diversity includes differences in gender, culture, age, religion and community. Think about the diversity within your own community and be respectful of differences.

Be mindful and listen to what is important to the parents/caregivers you are assisting in CPS.

11



Many Native Americans have traditionally used cradle boards and are an important part of some Native American cultures. They were the first CPS devices used in these communities. Their main purpose was to serve as a bed. They were also used to protect the child when being moved by non-motorized vehicles.

Cradle boards are fine for general use at home or for traditional activities. But using them to transport children in motor vehicles is not safe. Special crash tests were done to test cradle boards. Results showed they are not strong enough to protect a child in a crash. However, CR are strong enough to keep an infant safe. So always use a CR that meets federal motor vehicle safety standards to transport children.

We honor and respect our children by keeping them safe.



Training for Safely Transporting Children

2



The SNAP training provides a basic overview of CPS. There is a national course that provides more in-depth information that certifies individuals as CPS technicians and instructors.

The national standardized CPS technician certification training program is usually three to four days long and combines classroom instruction, hands-on exercises with CR and vehicles and a community safety seat checkup event. Students demonstrate proper use and installation of CR and safety belts and then teach these skills to parents.

This level of training is required to teach SNAP. If interested in becoming certified you can visit www.safekids.org/certification for more information or talk with your SNAP teacher.

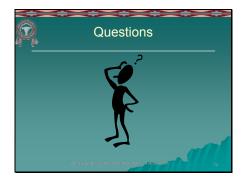
13



The use of outdated or incorrect teaching material can have deadly results. Use updated and correct information when you teach it to anyone who transports children.

These websites offer the latest information in CPS. These sites also lead to other CPS links.

14



Do you have any questions about what we have covered so far?



Safe Native American Passengers Training for Safely Transporting Children Provide answers on your post-test sheet.

Chapter Review 1. Tough choices are made by: A. you
B. parent/caregiver
C. police officer Encourage parents to read manufacturer's instructions of A. child restraint
 B. motor vehicle
 C. both A and B

Indian Health Service Injury Prevention Program



Training for Safely Transporting Children

Pre/Post Test Name:_____

- 1. Tough choices are made by:
 - A. you
 - B. parent/caregiver
 - C. police officer
- 2. Encourage parents to read manufacturer's instructions of
 - A. child restraint
 - B. motor vehicle
 - C. both A and B
- 3. What is the most common type of collision?
 - A. Rear-end
 - B. Frontal
 - C. Horse
 - D. Side
- 4. How do restraints reduce or prevent injuries?
 - A. Keeps people in the vehicle
 - B. Spreads out the force
 - C. Protects the head and spinal cord
 - D. All of the above
- 5. The webbing is the part of the seat belt that:
 - D. Stretches in a crash
 - E. Holds the person to the vehicle
 - F. Both A and B
- 6. What are the types of pre-crash locking seat belt systems?
 - A. Switchable
 - B. ALR
 - C. Both A and B
- 7. The two types of pre-crash locking retractors are:
 - D. Switchable and Emergency Locking
 - E. Automatic locking and Switchable
 - F. Both A and B
- 8. Use a locking clip if the vehicle system has:
 - A. Automatic locking retractor and sewn-on latch plate
 - B. Emergency locking retractor and sliding latch plate
 - C. Lap belt and locking latch plate



Training for Safely Transporting Children

Pre/Post Test

Name:

- 9. What does LATCH stand for?
 - A. Lower Anchors Tethers for Children
 - B. Less Anchovies To Chill
 - C. Little Athletic Toys for Children
- 10. Where can a top tether anchor be found?
 - A. On the roof
 - B. On the back of the seat
 - C. Either A or B
- 11. The best child restraint is one that:
 - A. Matches the interior color of your vehicle
 - B. The most expensive seat you can buy
 - C. Fits the child, fits the vehicle, and will be used correctly every time
- 12. The elements of correct installation to consider when selecting your child restraint are:
 - A. Selection, Direction, Location, and Installation
 - B. Rear-facing, forward-facing, booster, and seatbelts
 - C. Shell, harness, retainer clip, and buckle
- 13. The CR that provides the **best** protection for a 13 month old who weighs 23 pounds is a:
 - A. Rear-facing infant CR that goes to 22 pounds
 - B. Rear-facing convertible or infant CR that goes to 30 pounds rear-facing
 - C. Forward facing convertible that goes to 40 pounds
- 14. Rear-facing CR should be installed at a _____ angle.
 - A. 60°-70°
 - B. 30°-45°
 - C. 20°-30°
- 15. Children should stay in a booster seat until they:
 - A. can pass the 5-Step Test
 - B. are 40 lbs.
 - C. are ready to drive
- 16. A child is ready to be forward-facing when they:
 - A. have reached the weight limit of their rear-facing seat
 - B. are at least 1 year old and 20 pounds
 - C. both A and B



1



If more people knew what really happens during a crash, perhaps they would be more likely to buckle up themselves and their children.

To understand the importance of seat belts and CR you need to know what happens in a crash.

2



What do we know about motor vehicle crash injuries?

According to the Centers for Disease Control and Prevention: www.cdc.gov/ncipc/wisqars/ motor vehicle crashes are the leading cause of death for Native Americans ages 1-44. In addition, more Native American children, ages 1-16, die from motor vehicle crashes than from any other cause.

3



Deaths from crashes are only the tip of the iceberg. There are many more injuries than deaths every year.

For every child who dies from an injury, many others are put in the hospital. And even more need care in emergency rooms, clinics and doctors' offices.

Some injuries are very serious and can change a child's life forever.



What do we know about the local community?



(Note to SNAP Teacher – local data on injuries, deaths, or restraint use may be presented on this slide. You may get data from your local Indian Health Service (IHS) service unit, Emergency Medical Services (EMS), state highway safety office, state trauma registries, etc.)

5



What are challenges to surviving a crash?

Non-use of CRs/safety belts remain a problem, especially in Native American communities. You can help educate your community about CR and seatbelt use.

Misuse rates vary from 73% to over 90%. In some Native American communities misuse rates are even higher. Correct installation and use of a CR can sometimes be difficult and leads to misuse.

Studies show that correct restraint use drops as children get older. Most children are restrained during the first year of life because they appear to be more fragile and need more protection. However, there is a drop in use for children from 1 to 3 years of age and a bigger drop from 4 to 7. This age group is seen as too big for a CR yet too small for seat belts alone.

It is important to review educational materials every year to be sure you are providing accurate and current information. By understanding correct use of CRs and seatbelts, it will be easy to see misuse and offer education to correct it.

Your part is to educate parents/caregivers about correct installation and how to avoid future misuse.



Training for Safely Transporting Children



Why is it important to restrain children while traveling?

Compared to adults they have:

- A larger head in compared to the rest of their body
- Higher center of gravity
- Smaller body
- Soft skull bones
- Rounded hip bones
- Weak stomach muscles

These make it more important to buckle up children. Vehicles are not built for kids. Most safety features in vehicles are built with adults in mind. Therefore. children are at greater risk of getting hurt than adults.

7 The Force in a Crash Do you feel scared driving 40 mph? Maybe you should! Imagine your car going 40 mph and hitting a tree. It would hit the tree with the same force as it would hit the ground falling off a 5-story building.

In any crash, even a small one, the people in the vehicle can be badly hurt.

Most of us are not afraid to drive 40 mph because we don't know how much force there is in a moving vehicle. It's amazing, really! Think about this: A car going 40 mph would hit a tree with the same force as falling off a 5-story building.

We tend to think we are much safer than we really are. We need to remember how much danger there can be even in a minor crash.

8 **Explaining Crash Forces**

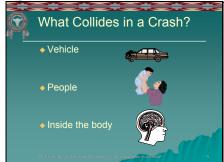
One way to help the public understand crash forces is to explain that the strength needed to restrain a person roughly equals the weight of the person times the vehicle speed.

For example: A 10 lb. infant in a motor vehicle moving at 30 MPH would require at least 300 lbs. of strength to keep from moving forward.

It is important for parents/caregivers to understand that holding a child in their lap or unrestrained is dangerous to the child.

Can you hold 300 pounds?

Training for Safely Transporting Children



A quick change in speed is what causes people to get hurt.

There are three collisions which happen in a crash:

First, the vehicle hits an object such as a tree or another vehicle.

Second, the people in the vehicle hit the inside of the vehicle, each other, or other loose items in the vehicle.

Third, the organs inside a person's body may hit other organs, bones, or even the inside of the skull. The person may look fine but the brain, heart, or other organs may be torn, bruised, or bleeding inside.

10



There are four types of crashes. Certain injuries are common in each type of crash if the people are not belted in.

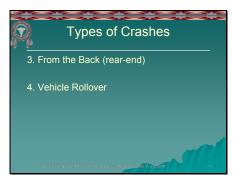
1. From the Front:

In this type of crash, people often have broken bones, cuts, and internal injuries. Crashes from the front happen more than any other type.

2. From the Side:

In this type of crash, people's heads may hit the window or the door post. They are also likely to have chest and pelvic injuries, broken bones in their faces or heads, and cuts. Crashes from the side don't happen as often as those from the front but the people in the vehicle are more likely to be killed.

11



3. From the back:

In this type of crash, people's necks are often hurt. The bones may break or the soft tissue, like tendons, can tear or stretch. People often have "whiplash" if there is no head restraint or if it is set in the wrong position.

4. Vehicle rollover:

In this kind of crash, the vehicle can roll onto its side or can roll upside down. The more times the vehicle rolls, the more damage is done. The people in the vehicle are often thrown out and crushed.



12



Sometimes people get hurt even when there isn't a crash. When the driver skids or stops too quickly, people can be thrown out of the vehicle or can be thrown around inside the vehicle. And if a door is not locked, someone may fall out.

13

How Restraints Prevent Injury

- Keep people in the vehicle
- Holds you where your body is strongest
- Spreads out the force of the crash
- Helps the body to slow down
- Protects the head and spine

Keeps people from being thrown out

People thrown from a vehicle are four times more likely to be killed than those who remain inside. Holds you where your body is strongest

For an older child or adult, the shoulders and hips are the strongest. For a baby, the CR supports the whole body

Spreads out the force of the crash

A lap/shoulder belt, like a CR harness, spreads the force across a large area of the body. This means the person is less likely to get hurt.

Lets the body or CR slow down with the vehicle
This extends the time when the forces are felt by the
person during a crash but only if they are held snug
against it by a restraint. They are less likely to be hurt
if they can slow down with the vehicle.

Protects the head and spinal cord

A shoulder belt or CR harness helps to keep the head and upper body away from the hard inside of the vehicle. But they only work if they fit right.



Training for Safely Transporting Children

You Can't Survive Every Crash Some crashes are too violent to survive Many factors determine outcome Restraints and airbags give the best chance of survival

Some crashes are so violent that even properly restrained people are injured or killed.

Survival depends on many things such as the speed on impact, weight of the passenger, weight of loose objects inside the vehicle and size of the vehicle. We never know for sure what will happen in a crash.

What **DO** we know for sure? You or your child have a much greater chance of coming out alive if you use your seatbelt and CR! Seatbelts, airbags and CR give the best chance of survival.

15



Some people are misinformed about seatbelts and CR. These are some common myths about using restraints and some responses you can give.

"I'm not driving very far. I'm only going down the street to the store. I always buckle up when I drive on the highway."

Response:

Most crashes happen close to home.

Roads and streets are more dangerous than highways because traffic is usually going two ways and there are many intersections and distractions.

"It is better to be thrown out. The car might burn or I might drown. I don't want to be trapped in my belt."

Response:

You are four times more likely to be killed if you are thrown from the vehicle.

Less than half of one percent of all crashes involves fire or water. It is better to be restrained during the crash so you are more likely to be conscious, uninjured and able to escape.

"I can hold my baby in a crash"

Response:

The forces in a crash are so great that it is impossible for any person to hold onto a baby's body.

If the adult is also unrestrained, it is likely he or she will crush the child.

"Restraints are too uncomfortable for me and my child"

Response:

People who get in the habit of buckling up find it uncomfortable to ride without them.

It is a lot more uncomfortable to be injured.

"I'm a good driver, so I won't get into a crash"



Response:

You can never predict or control what other drivers will do, or how the weather may have changed the roadway.

16



All states have a child restraint law. But some Native American communities do not. If yours does not have these laws, please work to get them passed. If there is a law and the law is enforced, people are more likely to use seat belts and CR.

Do you know what your local law is for CR's and seatbelts?

(Discuss local laws).

17



Why should we use restraints? There are many reasons.

Studies show restraints cut down: (http://stokes.chop.edu/programs/injury/)

- Injury severity by 60%
- Hospital admissions by 69%
- Treatment costs by 66%

Saving money is important because funds used to care for these injuries can instead be used for other programs such as diabetes care.

Use a seatbelt!
Use your CR!
You could save a life!

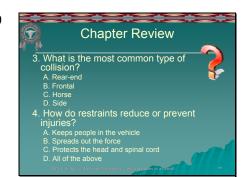


Training for Safely Transporting Children Do you have any questions about what we have



covered so far?

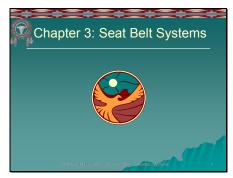
19



Provide answers on your post-test sheet.



1



There are many ways that people riding in cars can be protected. These include seat belts, airbags, CR and features such as padding in the panels of a car. Before you can use these protection systems, you need to know how they work.

In this chapter we will:

• Learn the parts of a seat belt system with pre-crash locking features

2



It is important to learn of seat belts and their various parts. Then you can understand how they work to install CR.

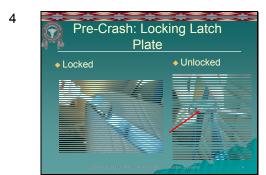
- Webbing is the fabric of the belt. The webbing holds the person or CR to the vehicle during a crash. If a car has been in a crash, the webbing may have stretched. If so, it will not work as well in another crash. So after a crash, it should be replaced.
- Anchors are where the seat belt or tether is attached to the vehicle or to the seat.
- Latchplate is the seat belt part that connects the seat belt webbing to a buckle in the vehicle.
- Buckle accepts the latchplate and holds the seat belt in place
- Retractor gathers and stores extra webbing in the vehicle. They are usually located out of sight at an anchor point. Most lap-shoulder seat belts have one retractor at the shoulder. Some seat belt systems may have two retractors: one for the lap-belt and one for the shoulder-belt.

Training for Safely Transporting Children



It is important to reassure the parent/caregiver that all seat belts are designed to lock in a crash. Some lock before the crash, and some lock during the crash.

- A pre-crash lock system, is one that is locked all the time. A system that locks only during a crash is not a pre-crash lock system.
- A CR needs to be pre-crash locked at all times in a vehicle so that the CR is positioned correctly before a crash occurs.
- A pre-crash locked system, when used correctly will keep a CR from moving more than one inch side-to-side or front-to-back. It does not have to be so tight that it does not move at all.



There are two pre-crash locking latchplates. The one pictured here is a pre-crash locking latch plate.

- This latchplate has a **moving locking bar** found on the bottom or back.
- The webbing threads through an adjuster in the latchplate.
- Once buckled, tighten it by pulling on the extra webbing (tail) of the lap belt or shoulder belt.
- How it works: A locking bar inside the latch plate will keep the webbing in place as long as the belt is at the proper angle. It stays locked in place when the webbing is parallel to the latch plate.



- Not all pre-crash locking latchplates look the same. Some have a movable bar as shown on the previous slide; others have a sliding or moving plastic part.
- The locking piece clamps down on the lap portion of the seat belt when buckled.
- Here are some examples of pre-crash locking latchplates.

Training for Safely Transporting Children



The second type of pre-crash locking latch plate is the switchable.

• A few vehicles have a switchable latchplate that uses a button to move from the adult pre-crash sliding position to the child pre-crash locking position.

Securing a CR With a PreCrash Locking Latchplate

• Read vehicle owner's manual
• Determine latchplate type
• Place belt through correct CR belt path and buckle
• Apply weight in CR and pull webbing at the belt path to tighten lap belt
• Check for tight installation

Now let's discuss how to secure a CR with a precrash locking latchplate:

- Read the vehicle owner's manual
- Determine the latchplate type
- Place the belt through correct CR belt path and buckle
- Apply weight to the CR with your hand and pull webbing at the belt path to tighten lap belt
- Check for tight installation. The CR should not move more than one inch at the belt path.

Note: CR belt paths will be covered in detail in later chapters.

(Optional: SNAP teacher to demonstrate in class how to use pre-crash locking latchplate)

Retractors that Pre-Crash Lock

Automatic locking
retractor (ALR)

Switchable
retractor

- In some vehicles the retractor, not the latchplate, provides the pre-crash locking part needed to keep a CR in place at all times.
- Remember: A retractor is the device that winds up extra webbing of unused seat belts to take up slack. It is vital to know what kind of retractor is in the vehicle.
- The two pre-crash lock retractors are: automatic locking retractor (ALR) and switchable retractor



Automatic Locking Retractors

Always locked

Test if you have an ALR

• ALR are always locked and easy to use with CR. These are usually found on older vehicles.

To test if you have an ALR:

• Pull the webbing out slowly and gently. If once you stop, the seat belt can only get shorter it is an ALR.

Installing a CR With an ALR Retractor

1. Read vehicle manual
2. Pull webbing and HOLD
3. Place belt through correct path and buckle
4. Apply weight on seat
5. Return extra webbing
6. Check installation

To install a CR with an ALR retractor:

- READ the vehicle owner's manual
- Pull the webbing fully out of retractor and hold
- Place the belt through the correct CR belt path and buckle
- Apply weight on the seat and let go of the extra webbing
- Return extra webbing back into the retractor
- Check for a tight installation. The CR should not move more than one inch at the belt path.

(Optional: SNAP teacher to demonstrate in class how to use an automatic locking retractor if available.)

Switchable Retractors

Locks in an emergency
Switches to ALR with your help
Test slowly and gently
Pull belt all the way
Note some have a button to switch to ALR

• A seat belt with a switchable retractor will lock only in an emergency such as a crash, sudden stop or turn, unless switched to the locking position.

To switch to ALR

- Test slowly and gently
- Pull belt all the way out to switch to ALR
- Look on the seat belt webbing for possible instructions on how to use the seat belt with the CR.



Training for Safely Transporting Children



To install a CR with a switchable retractor:

- READ the vehicle owners manual
- Route the belt through the correct CR belt path and buckle
- Pull the webbing all the way out of the retractor and test gently
- Apply weight on the seat with your hand
- Tighten the seat belt
- Return extra webbing back into the retractor
- Check for tight installation at CR belt path. The CR should not move more than one inch at the belt path.
- Show the parents/caregivers each installation. Take time with them so that they can learn how to best protect their children in a vehicle by using this seat belt system.

(Optional: SNAP teacher may demonstrate in class how to use a switchable retractor, if available.)

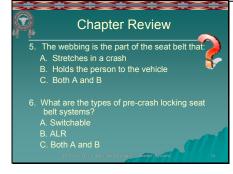
13



Do you have any questions about what we have covered so far?



Safe Native American Passengers Training for Safely Transporting Children Provide answers on your post-test sheet.





1



- Remember CR must be tight in the vehicle at all times, however, some systems are not designed to do that
- Not all vehicle seat belts are locked before a crash or sudden stop.
- Not all vehicles have seat belts that provide a precrash locking feature needed to secure a CR
- We will now talk about those seat belt systems that require an approved additional step to provide the pre-crash locking feature

2



- Pictured on the left is a sliding latch plate. It has no locking feature and no moving parts.
- To test if this latch plate has a pre-crash locking feature; buckle the seat belt and pull up on the lap portion of the seat belt. The latch plate will grab the seat belt webbing if there is a pre-crash locking feature. If the seat belt webbing slides thorough the latch plate there is no pre-crash locking feature.
- The sewn-on latch plate shown on the right has no locking features and no moving parts.
- An approved additional "fix" may be needed with both of these latch plates.
- Read vehicle owner's manual for CR instructions.



Training for Safely Transporting Children



- This type of retractor locks only in a sudden stop, turn or crash.
- An ELR lets the belt extend or rewind freely. It does not keep the belt tight during normal driving but will lock in a sudden stop or crash.
- You cannot identify an ELR just by looking at the seat belt.

To test:

- Pull 24 to 36 inches of webbing slowly and gently
- Allow some of the webbing to go back into the retractor
- Try to pull the webbing out again very slowly
- If the webbing goes freely in and out of the retractor you might have an ELR
- Now slowly pull the webbing all the way out of the retractor. It the webbing does not switch to a locked position you have an ELR

Read the vehicle owner's manual for CR instructions

Nothing Locks?

Use one of the four approved additional steps to install a CR:

Use Locking clip/lockoff

Use Belt shortening clip

Flip latchplate

Twist buckle stalk

You should always check the vehicle and each seating position for pre-crash locking features. If none are available, vehicle manufacturers have approved these additional steps when the retractor and the latchplate do not pre-crash lock.

- Use a locking clip/lockoff
- Use a belt shortening clip
- Flip the latch plate
- Twist the buckle stalk- check the vehicle owner's manual to see if buckle twisting is allowed. Maximum of 3 twists.

These last two steps are done when the seat belt does not lie flat and allows webbing to slip.

THE SECOND SECON

Safe Native American Passengers

Training for Safely Transporting Children

CR Lock-Off

 Built in locking clip
 Use when no precrash lock
 Safe
 Lock-offs and locking clips do the same thing

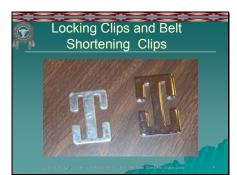
Lock-offs are built-in locking clips that are part of the CR.

They are used on the lap and shoulder seat belts that have a sliding latchplate (no pre-crash lock) and an FLR

Some parents/caregivers may question the safety of lock-offs but assure them that they are safe to use. Educate parents to use the lock off as directed by their CR manufacturer.

Ask a technician if you need help.

6



There are two types of clips:

- 1. Locking clip:
- Used with a latch plate that does not lock pre-crash
- Keeps the lap portion of the seat belt at a fixed length
- Pre-crash device works until retractor activates in a crash
- Found on all new CR when purchased
- 2. Belt Shortening Clip:
- Used with a retractor that does not lock pre-crash
- Shortens the lap portion of the seat belt
- Can be used as a locking clip but a locking clip cannot be used as a belt-shortening clip
- They are less available than locking clips but can be ordered from car dealers such as Ford, Nissan and Toyota

7



When using a locking clip all three conditions must be present:

- Lap-shoulder belt is all one piece of webbing
- ELR is in place
- Sliding latchplate does not lock pre-crash



Training for Safely Transporting Children

Lap-Shoulder Belt Only How to Use a Locking Clip

Route belt
Apply weight
Pinch webbing
Attach clip
Test

Use a locking clip with a lap/shoulder belt only.

- Route the belt through the correct belt path and buckle
- Apply weight to the CR while pulling shoulder webbing to remove lap belt slack
- Pinch and hold both pieces of the webbing together and unbuckle
- Attach the locking clip within one inch of the latch plate and re-buckle
- Test for tightness

(Optional: Teacher to demonstrate in class how to use a locking clip.)



A belt shortening clip firmly ties off and locks the fully extended seat belt webbing to provide a fixed lap belt length.

- Takes the place of the retractor.
- Should be placed near the retractor.
- Should be used as a last resort because incorrect use can cause injury.

If you have questions call a technician.

When to Use a Belt Shortening Clip

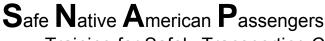
• Both conditions must be present:

- Emergency Locking Retractor

- Sewn-on Latch Plate

• Can be a lap-shoulder belt or just a lap belt

Use a belt shortening clip if you have both an emergency locking retractor and a sewn-on latch plate. Remember to check other seating positions first before choosing a seating position that has this seat belt system.



Training for Safely Transporting Children

11

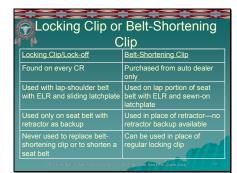


To use a belt-shortening clip:

- Make a loop of the slack that must be taken up.
- Tuck the two parts of the webbing through the arms, then double back to the top loop and tuck it under.
- Install it on the retractor side of the safety belt.

(Optional: Teacher to demonstrate in class how to use a belt shortening clip.)

12



This is a summary of key points when using locking and belt shortening clips.

13



Do you see anything wrong in this picture?

Answer: You would never use a locking clip on a lap belt with a locking latch plate.



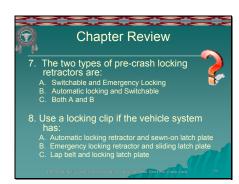
S afe N ative A merican P assengers

Training for Safely Transporting Children Do you have any questions about what we have



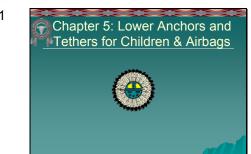
covered so far?

15



Provide answers on your post-test sheet.





This chapter looks as Lower Anchors and Tethers for Children (LATCH) and airbags LATCH is a system used to make it easier to install CR in vehicles.

Airbags are part of the restraint system that automatically inflates in a crash and are meant to be used with seat belts.



Lower Anchors and Tethers for Children (LATCH) is a system used to make CR installation easier in vehicles.

Since September 2000, all new cars, minivans and small trucks have tether anchors to hold the tops of CR.

Vehicles made after 2002 have at least three top tethers and two lower anchor sets.

Check the vehicle owner's manual to know if a vehicle has LATCH and where each LATCH seating position is found.



To use LATCH- both the CR and the vehicle must have the LATCH parts that work together.

Each LATCH set in the vehicle is made up of two lower anchor bars found at the seat bight and one top tether anchor. If there are lower anchors in a seating position, there is a top tether anchor for that seating position too.

LATCH attaches the CR to the vehicle through anchor points installed in the vehicle and through anchor hooks attached to the CR

A seating position with only a top tether anchor is not called LATCH.

You should remind parents/caregivers to use top tethers whenever possible.

Training for Safely Transporting Children



Tether anchors can be found in several locations in a vehicle. Possible locations include:

- Ceiling above the rear seating positions
- Rear window shelf
- Back of the vehicle seat
- On the floor of the cargo area
- Under the vehicle seat

Sometimes the vehicle manufacturer has placed logos to identify the location of the tether anchor or lower anchor bar.

Always check the vehicle owner's manual for correct location and retrofit instructions.



Lower anchors can be found in the bight of the vehicle seat.

- They can be visible or hidden like in the picture where you need to move the flap to find the lower anchors.
- Look to see if there are labels or tags that identify where the lower anchors are located.



Remember, for the LATCH system to work it must be used correctly.

Lower Anchors are being misused if a CR is:

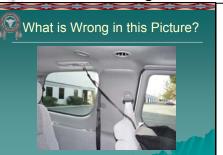
- Not firmly attached to bars
- Using a non-approved position
- Using a seat belt and lower anchors at the same time (unless allowed by manufacturer)
- Sharing the same anchor bar with another CR

A CR is being misused when the top tether is:

- Not being used when available
- Not attached to the top anchor using the most direct route
- Connected to the wrong anchor
- Too loose

6





Do you see anything wrong in this picture?

Answer: You should only use the approved anchor when using the top tether.



There are some important points to consider with airbags:

- Airbags help reduce injuries in a crash when used correctly.
- Airbags are designed to be used with seat belts.
- The back seat is safest for children who are 13 years and younger.
- Some vehicles have airbag switches that allow you to turn the airbag off. If you must put a child or a CR in the front seat of a vehicle then make sure you can turn the airbag off.
- Children must be able to sit back against the vehicle seat in the correct position when seated in front of an airbag.



Your SNAP teacher will demonstrate how each latchplate and retractor work.

Using the vehicles you will identify the type of retractor and latch plate.

You will identify tether, lower anchor points and airbag locations.

After you have identified the system in a vehicle, please have your SNAP teacher check your form.

It is important to identify as many different seat belt systems as you can.



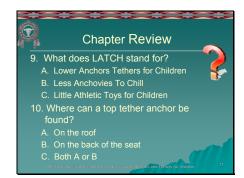
Training for Safely Transporting Children

Do you have any questions about what we have

Questions?

covered so far?

11



Provide answers on your post-test sheet.



Exercise 1: Identification of restraint systems in vehicles

Vehicle	Passenger Front Seat	Back Seat-Middle Position	L/R Outboard Seat
Number	i asseriger i font seat	Dack Seat-Mildule Position	Litt Outboard Seat
	Type of Latch Plate Locking Switchable Sliding Sewn-on	Type of Latch Plate Locking Switchable Sliding Sewn-on	Type of Latch Plate Locking Switchable Sliding Sewn-on
	Type of Retractor ALR Switchable ELR None	Type of Retractor ALR Switchable ELR None	Type of Retractor [ALR Switchable ELR None
	Type of Restraint Lap/Shoulder Belt Lap Belt None	Type of Restraint Lap/Shoulder Belt Lap Belt None	Type of Restraint Lap/Shoulder Belt Belt None
	Lower Anchors (LA) and Tethers LA symbol found? Y N LA location found?	Lower Anchors (LA) and Tethers LA symbol found? Y N LA location found?	Lower Anchors (LA) and Tethers LA symbol found? Y N
	Y N Top tether anchor found? Y N	Y N Top tether anchor found? Y N	LA location found? Y N Top tether anchor found? Y N
	Information found in vehicle owner's manual: child restraints Page NoLower Anchors Page No.		
	Tether Anchor Page No		
	Airbag: Driver Passenger Side Other		
	Warning labels? Y N		



1



There are many different types of CR for each stage of a child's growth. In this chapter we are going to discuss CR basics.

2



Choosing a CR can be overwhelming or confusing for parents/caregivers. There are many brands and models, just as there are many makes and models of vehicles – Ford Escort, Toyota 4Runner, Chevy Silverado, etc. There are many brands and models of CR and there are the basic types of CR, just as there are basic types of vehicles – cars, trucks, SUV's, minivans.

These are the basic types:

- Infant (rear-facing only)
- Convertible (rear-facing & forward-facing)
- Forward-facing only (harness & combination)
- Boosters (belt-positioning)
- Special needs restraints (covered in the CPS technician certification or the special needs training from Riley Children's Hospital: www.preventinjury.org)
- Seat belts

THE RESIDENT

Safe Native American Passengers Training for Safely Transporting Ch

Training for Safely Transporting Children

What is the Best CR?

• Fits the child

• Fits the vehicle

• One you use correctly every time

Parents/caregivers want the best for their children and they naturally want to know "what is the best CR?".

To help answer this question ask:

- Does the CR fit the child (age appropriate, weight and height)?
- Does the CR fit the vehicle?
- Does the CR work well with the seatbelts or LATCH system?
- Can each parent/caregiver install it correctly each and every time?

The answer: The best CR is one that fits the child, fits the vehicle, fits your budget, and one that will be used correctly every time.

4



Before you can teach a parent/caregiver, you need to know the following:

- Selection: Is it the right CR for the child's age, height, and weight?
- Direction: Should the child be rear or forward facing?
- Location: Where is the safest place to install the CR in the vehicle?
- Installation: If the CR has two belt paths are the belt or LATCH attachments routed through the correct path? Does the harness lie flat and fit snug?

Always read the labels on the CR and the manufacturer's instructions for the vehicle and CR.

5



Other issues to remember include:

Safety:

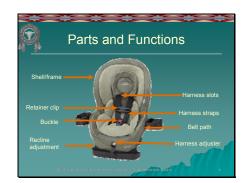
- <u>Label</u> The CR should be labeled to meet Federal Motor Vehicle Safety Standards (FMVSS).
- Expiration date Some CR have expiration dates. If there is no expiration date then the CR you select should be less than 6 years after the manufacture date.
- History It should not have been in a crash (See NHTSA's criteria for assessing crash severity and CR replacement in the appendix).
- Recall The CR should not have had an uncorrected recall. A recall is notice of a problem from the CR manufacturer. Action must be taken by the manufacturer to correct. (A recall list can be found at www.nhtsa.gov).

Unsafe CR should be destroyed so that an unsuspecting family cannot use it.



- Compatibility: All the parts (CR, vehicle, LATCH) should work well together.
- Convenience: The CR should be easy to use so that each parent/caregiver will use it correctly every time a child rides in a vehicle.
- Comfort: Choose a CR with the comfort of the child in mind. To do this, sometimes the child may need to help choose their CR. You can negotiate about cup holders or a cool fabric patterns, but not about using a CR.





To install a CR correctly it is important to know the common parts of a CR. Different CR may have parts not listed here. Read the manufacturer's instructions to learn about the parts and functions of each CR.

Buckle: Where the harness locks

<u>Harness:</u> The straps that keep the child in the CR and spread out the crash forces

Retainer clip: The plastic tie or clasp that holds the shoulder straps together at the armpit line

<u>Harness Adjuster:</u> This part is used to tighten or loosen the harness

<u>Harness Slots:</u> The part of the CR where the harness goes through (higher for toddlers and lower for infants)

Shell/frame: The molded plastic structure of the CR

Recline adjustment: Changes the angle of the CR (i.e. reclined for rear-facing or upright for forward facing)

<u>Belt Path</u>: Where the seat belt or lower anchor straps are placed to secure the CR in the vehicle

<u>Lock-offs and locking clips</u>: The pre-crash device that holds the CR in the proper position during normal driving



Parts and Functions

Harness adjuster bar

Labels
Level indicator

Manufacturer's Instruction manual

These items are also found on a CR:

<u>Tether:</u> a piece of belt webbing that anchors the top of the CR to the vehicle.

<u>Lower anchors:</u> a piece of belt webbing that anchors to the lower anchors of the vehicle.

<u>Harness adjuster:</u> is removed and re-threaded to adjust the tightness of the harness on an infant CR.

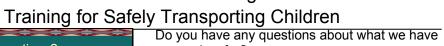
<u>Labels</u>: are required on CR made in the U.S. The labels you should see are:

- Certification that the CR meets federal motor vehicle safety standards
- The manufacturer's guidelines for the size of the child and how to install the CR
- Manufacturer's information
- An air bag warning (rear facing and convertible CR)
- Belt path for the seat and lower attachments
- Manufacture date and model number

<u>Level indicator:</u> is found on some infant CR to help place the CR at the right angle. It only works if the vehicle is on a level surface.

<u>Manufacturer's Instruction manual:</u> tells the reader how to use the CR safely.

Registration card: All new CR should include a recall registration card. Remind parents/caregivers to fill out this card and mail it in. CR can also be registered at the manufacture's website, by calling the manufacturer's toll free number or on the NHTSA website (www.nhtsa.gov). If you are giving out CR it is a good idea to have the parents fill this form out and mail it in for them (no postage necessary to send in).



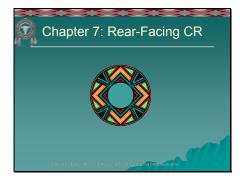


covered so far?

9 **Chapter Review** 11. The best child restraint is one that: The elements of correct installation to consider when selecting your child restraint are:
 A) Selection, Direction, Location, and Installation
 B) Rear-facing, forward-facing, booster, and seatbelts
 C) Shell, harness, retainer clip, and buckle Provide answers on your post-test sheet.



1



In this chapter we are going to review the types of rear-facing CR, common misuses, and practice installation of these seats.

2



Now we are going to introduce each type of CR in more detail beginning with rear-facing only infant CR:

- Use a rear-facing CR for infants until they are at least 1 year old and weigh at least 20 pounds. The American Academy of Pediatrics recommends that children remain rear-facing to the upper weight limits of the CR which can vary from 20-30 pounds and/or 27-30 inches. This is because infants' heads are larger than their bodies and need a recline to support their head, neck and spine. Remember that rear-facing CR are safest for infants because the crash forces are spread out over the back of the CR.
- Rear-facing CR can have a 3-point or 5-point harness. In the rear-facing position the harness should be at or below the shoulders.
- Some models have a base that comes off. Most can be used with or without the base. This can be convenient for parents/caregivers.



Training for Safely Transporting Children



Another type of CR for rear-facing is the convertible CR – it "converts" from rear-facing to forward-facing depending on the needs of the child and the manufacturer's recommendations.

<u>Convertible</u> – CR may be used facing rear for infants from birth to upper limits of the CR. Many are now approved rear-facing up to 30-35 lbs. The rear-facing position is safest, children should ride rear-facing as long as possible.

With these CR:

- Children should be rear-facing to the higher weight limit
- Use in reclined position of 30°-45° (follow the manufacturer's instructions)
- Use the harness slots that are at or below the shoulder level

Pictured here are the three types of convertible CR:

- 5-point harness
- Tray shields*
- T-shields* (not made anymore)

*Don't use CR with tray shields for small infants. The infant's face or head may hit the shield in a crash or if the car turns or stops quickly.

Installation: Rear -Facing

Never in front of an active airbag
Correct Belt Path
Recline angle (30-45 degrees)
Tight belt

We are now going to discuss location and installation for the rear-facing CR:

Airbags:

• When selecting a location in the vehicle make sure the CR is not in front of an active airbag.

Belt path:

• Identify where the correct belt path is on the CR. Look for the labels.

Recline angle (how far the CR tilts back):

- With a rear-facing CR, make sure the infant does not lay back more than 45 □ from straight up.
- The correct recline angle keeps the baby's airway open so it can breathe. As infants grow, their necks get stronger, and they can be put into a more upright position.
- Some CR have a built-in device that shows the angle of recline.
- Rear-facing infant CR may have an adjustable base. You may use a rolled up towel, newspaper or pool noodle to achieve the correct recline angle as well.

Tighten the seat belt or LATCH:

• The CR should not move more than one inch from

Indian Health Service Injury Prevention Program 2009



side-to-side or front-to-back side-to-side or front-to-back. To check this, grip the CR at or near the belt path and pull on the CR. If the seat still moves more than one inch, tighten the seatbelt or LATCH. You may need to install the CR again.

5



When securing the infant:

- No extra padding: Do not use padding that did not come with the CR. Padding can be clothing or things you buy after the seat. Place blankets around the infant after the harness is snug.
- <u>Snug harness</u>: Tighten the harness straps snuggly and do the pinch test-at the infant's shoulder. Pinch the webbing up and down, your fingers should slide off.
- <u>Flat harness</u>: The harness straps should lie flat against the child's body. Twisted straps could actually cut a child in a crash.
- <u>Retainer clip position</u>: Place the harness retainer clip at the child's armpit level. Having the retainer clip too low could allow the child to be ejected from the CR.
- Don't use a rear-facing CR if the baby's head is within one inch of the top of the shell.

(Teacher to demonstrate how to place an infant in a CR)



Training for Safely Transporting Children



Parents/caregivers want to keep their children safe. Unfortunately:

- Some may not understand the dangers of what really happens in a crash.
- Many don't take the time to put the CR in correctly.
- Used CR may be missing their instruction manuals.
- Many choose not to read instructions except "as a last resort".
- Some CR don't fit some vehicles.

7 Misuse Not buckling child into child restraint Not anchoring child restraint to vehicle Placing an infant facing-forward Placing rear-facing infant in front of

Almost 4 out of every 5 people have installed their CR incorrectly. Misuse may make the CR unsafe.

Some common misuse you might see:

- Not buckling the child into the CR.
- Not anchoring the CR to the vehicle.
- Placing an infant in a forward-facing position. Rearfacing infant CR should always face the back of the vehicle and infants should be rear-facing as long as possible. Remember, infants ride rear-facing to a minimum 1 year and 20 pounds.
- Placing a rear-facing infant CR in front of an active passenger airbag.

8 More Misuse Recalled child restraint or too old Loose harness Loose seat belt Wrong belt path Wrong angle Unknown history Missing parts

Sometimes there is more than one mistake. You may see mistakes in any or all of these areas:

- Using a recalled CR or one that has expired.
- The harness is too loose and you can easily pinch the webbing together.
- The seat belt is not tight and the CR moves more than one inch side to side or front to back.
- The wrong belt path was used to install the CR.
- The CR is not at the correct recline angle of 30-45°.
- Using CR with an unknown history such as handme-down or second-hand CR
- CR with missing parts or sharing parts from another CR



What you may think are "small mistakes" can be very serious when combined with other mistakes.

9



In teams of two or three select the correct CR that fits the child's weight, height, age.

When the SNAP teacher indicates, install the CR in a vehicle. Use the vehicle and CR instruction manuals.

The SNAP teacher will confirm that the CR is installed correctly.

10



Do you have any questions about what we have covered so far?



Safe Native American Passengers Training for Safely Transporting Children Provide answers on your post-test sheet.





Exercise 2: Installation of rear-facing child restraints

Child Restraint	How does it lock	Teacher initials
Infant only with base	Retractor: Latchplate: How does it pre-crash lock?	
Infant only without a base	Retractor: Latchplate: How does it pre-crash lock?	
Rear facing convertible	Retractor: Latchplate: How does it pre-crash lock?	
Rear facing child restraint (your choice)	Must be installed with LATCH	

Notes:



1



We have already talked about convertible CR and how to use them rear-facing. We are now going to talk about how to use convertibles forward-facing and CR that can only be used forward-facing.

2



Convertibles and Forward-facing CR:

- Many internal harness for CR are rated at 40 pounds. There are some CR that allow a higher weight limit for the harness.
- Should only be used for children who are at least one year old AND who weigh at least 20 lbs.
- Forward facing CR can have a 5-point harness or a tray-shield.

3



Choose the CR that is right for the toddler's weight, height, physical development and behavioral needs. When securing the toddler:

- Place the toddler's bottom and back flat against the back of the CR. The child's ears should not be over the top of the shell.
- Put the harness straps at or above the shoulders and buckle at the crotch.
- Tighten the harness straps snuggly.
- Place the harness retainer clip at armpit level.
- Sometimes you will need to fit the child in the CR first, before the CR is installed in the vehicle.
- Do the pinch test at the toddler's shoulder. Try to



pinch the webbing up and down, your fingers should slide off.

Installation: Forward-facing

Not in front of an airbag
Back seat
Correct belt path
Tight belt

We are now going to discuss location and installation for the forward-facing CR.

When selecting a location in the vehicle make sure the CR is not in front of an active airbag. The back seat is safer for children.

Identify correct belt path:

- We then need to identify where the correct belt path or LATCH is on the CR. Look for the label on the CR that shows the correct belt path for the direction the CR will face.
- Next, we need to determine if the CR has a recline adjustment. An upright position eases the force of the crash. Some manufacturers allow the CR to be installed in a reclined position.

Tighten the seat belt or LATCH:

• To ensure the CR does not move more than one inch from side-to-side or front-to-back, tighten the seatbelt or LATCH. To check for a tight fit, hold the CR at or near the belt path and pull on the CR. Most forward-facing CR will require the use of a tether. Follow the manufacturer's instructions.



Vests:

- Some vests may be used without a tether for children 25-30 lbs. and others may be used up to 168 lbs. with a tether. These are commonly used in small buses similar to the ones used by Head Starts, daycares, etc.
- Vests may be a good choice when other CR can't be used for children with behavior issues, weak muscles, or excess weight.

Integrated seats:

• These are built into the vehicle and are forward facing only (some convert to boosters). These are commonly found in SUV's, minivans, and some sedans.



Combination CR are forward-facing only. These CR use a harness that change to belt positioning booster seat by removing the harness at around 40 to 65 lbs.



Booster seats are for children who outgrow their forward-facing CR. They use the seatbelt systems by raising up the child so that the seatbelt comes across the child's hips, not the belly and the shoulders, not the neck. They have a lower weight limit of 30-40 lbs. and an upper limit of 80-100 lbs.

All boosters must be used with a lap and shoulder belt only.

If the vehicle seat backs are low or do not have head restraints you must use a high back booster.

If the vehicle seat backs are high or have head restraints you may use a backless or high back booster.

The child's ears should not be above the back of the vehicle seat or the top of the head restraint.

7



Most boosters come with a shoulder belt positioner to adjust the shoulder belt height on the child.

Some newer boosters have the option to use the tether or lower anchors.

Children should stay in a booster until they can pass the 5-Step Test.

8



According to SafetyBeltSafe USA*, this is the 5-Step test:

Does the child sit all the way back against the auto seat?

- 2. Do the child's knees bend comfortably at the edge of the auto seat?
- 3. Does the 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?

If you answered "no" to any of these questions, your child needs a booster seat. If you answered "yes" to all of these questions then your child is ready for a seat belt.

A lap/shoulder belt offers the best protection. A lap belt is a poor second choice but is better than no restraint.

*SafetyBeltSafe U.S.A. P.O. Box 553, Altadena, CA 91003

Non-Regulated Products

Added to a vehicle or CR after purchase
Padding
Toys
Belt tightening tools
Seat belt adjusters

Non-regulated products are items that are added to a vehicle or CR after you have already bought them. These products are not approved by the CR manufacturer but are marketed to improve the comfort, fit, or installation of a CR or seat belt:

- Head-positioning pads
- Toys
- Belt tightening tools
- · Seat belt adjusters

There are no safety rules for non-regulated products. Carefully read all CR and vehicle manufacturer's instructions to ensure these products are approved for use. Most manufacturers warn against using "extras" with their products.

10



A forward-facing harness system is a safer choice than shield boosters.

Shield boosters are:

- outdated and no longer made
- meant for children 30-40 pounds

In some areas shield boosters are still in use. Sometimes the shield can be removed and the booster base can be used as a backless booster (for children over 30 lbs) with a lap and shoulder belt system.

The use of shield boosters is not best practice.

11

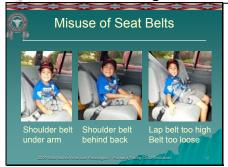


Common types of misuse include:

- not putting the retainer clip at armpit level. Having the retainer clip too low could allow the child to be thrown out from the CR.
- using a frayed or damaged harness webbing. Make sure the harness is not twisted.
- using a loose harness. The harness should fit snug enough so that you cannot pinch the webbing together.
- using a CR that has been in a significant crash. If the CR has been in a crash it needs to be replaced.
- children using an adult seat belt too soon.

Training for Safely Transporting Children

12



If the child is too small for the seat belt s/he will be uncomfortable. Putting the shoulder belt under the arm, behind the back, or putting the lap belt too high or loosening the seat belt are common when the seat belt does not fit the child correctly.

Use the 5-Step Test to see if the child is ready for the seat belt.

13



In teams of two or three select a forward-facing CR.

Install your CR in a vehicle. Use the vehicle and CR instruction manuals.

The SNAP teacher will confirm that the CR is installed correctly

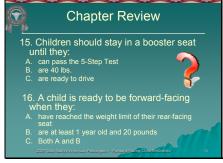
14

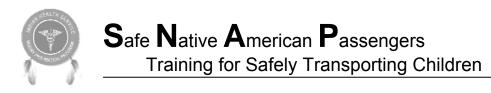


Do you have any questions about what we have covered so far?



Safe Native American Passengers Training for Safely Transporting Children Provide answers on your post-test sheet.



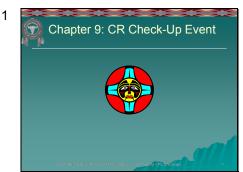


Exercise 3: Installation of forward-facing child restraints

Child Restraint	How does it lock	Teacher initials
Forward facing convertible	Retractor: Latchplate: How does it pre-crash lock?	
Forward Facing child restraint with a harness	Retractor: Latchplate: How does it pre-crash lock?	
High Back Booster	Retractor: Latchplate: How does it pre-crash lock?	
No Back Booster	Retractor: Latchplate: How does it pre-crash lock?	

Notes:





A CR Check-up event is a community activity where people trained in CPS work with the parents/caregivers to make sure that their CR is installed correctly. A CR check-up event is a good place for you to work with a technician to improve your skills and help your community.



A technician is required to attend the event to oversee the education that is being offered to the parent/caregiver.

Remember the Learn, Practice and Explain principle? This is where you will work with the parent/caregiver so that they will:

- learn the information you teach them
- practice installing their CR
- explain what they did

Let's look at a check-up form that is used for the CR event.



Another way to remember the different CR you learned today is to use the National Highway Traffic Safety Administration's (NHTSA) Four steps for Kids:

Step1: Rear-facing CR should be used as long as possible up to the height or weight limit of the CR. Keep infants rear-facing until a minimum of age 1 and at least 20 pounds.

Step 2: Forward-facing CR should be used until they reach the upper weight or height limit of the CR (usually around age 4 and 40 pounds).

Step 3: Booster seats should be used until the vehicle lap shoulder seat belt fits properly. The seat belt fits properly when the lap belt lays across the upper thighs and the shoulder belt fits across the chest (usually at age 8 or when they are 4'9" tall).

Step 4: The adult seat belt fits properly laying across

Indian Health Service Injury Prevention Program 2009



the upper thighs and the shoulder belt fits across the chest.

Wrap Up

Low restraint use in communities

Everyone should buckle up

Selection, direction, location and installation important

Best CR

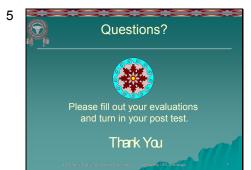
Learn correct use, recognize misuse

Practice, help with confidence

We have learned a lot today about child passenger safety.

We learned that:

- restraint use is low in Native American communities
- it is important to buckle up everyone in the vehicle because even crashes at lower speeds are dangerous
- selection, direction, location, and installation of a CR are important
- the best CR is one that fits the child, fits the vehicle, and will be used correctly every time
- if we work to learn correct use of CR, we will more easily recognize misuse
- the more we practice what we have learned, the more confident we will be when helping others in CPS



This is the end of the SNAP training. Your attention during the lectures and your participation in the hands-on exercises are appreciated.

Are there any final questions?

Please fill out your evaluations and turn in your post test to the SNAP teacher.

CHILD PASSENGER SAFETY CHECKLIST

INSTRUCTIONS: Use blue, black i	nk or #2 pencil only. Do not write in the margin	ns Submit only originals to SKW			
Fill in boxes, one	Fill in circles like this: Not: 😭				
Fill in boxes, one letter per box: 1 2 MAPLE ST Fill in circles like this: Not: Oriver's First Name					
Street Address					
City		State ZIP			
Telephone Number	E-mail Address				
Vehicle Make/Manufacturer	Vehicle Model	Vehicle Year			
(e.g., Chevy, Pontiac, Nissan, Honda, etc.)	(e.g., Silverado, Grand Am, Altima, Civic, Sevill	e, Dakota, Malibu, Blazer, etc.)			
How did you hear about this event?	Lwould l	ike to make a contribution			
○ Flier ○ Web ○ Newspape ○ TV ○ Radio ○ Friend/rela	to my lo	cal Safe Kids coalition.			
0 0					
Add your own waiver in this text box					
	Date	(MM/DD/YYYY)			
Signature V	Date	(MWDD/1111)			
^					
CHILD NUMBER 1					
First Name	Age: Years Months DOB (N	//////////////////////////////////////			
	Official Use Only - See Guide on Other Sid	e ————			
About the child & CSS/restraint	al al aggin at the street	Installation			
About the child & CSS/restraint	Check CSS/Restraint as it arrives				
1. Wt: Ht (in inches):	10. CSS/restraint type (see key):	Y N			
1. Wt: Ht (in inches):	10. CSS/restraint type (see key): O IO O BPB O Other	22. Replace CSS at event?			
1. Wt: Ht (in inches): Y N NA	10. CSS/restraint type (see key): O IO O BPB Other O IO Base Lap Belt None	22. Replace CSS at event?			
1. Wt: Ht (in inches):	10. CSS/restraint type (see key): O IO O BPB O Other	22. Replace CSS at event?			
1. Wt: Ht (in inches): Y N NA 2. Child present?	10. CSS/restraint type (see key): O IO O BPB Other O IO Base O Lap Belt None O RF CONV O L/S Belt O FF/Harness O Vest/car bed	22. Replace CSS at event? Uninstalled or New CSS 23. Seat provided by: Parent Coalition			
1. Wt: Ht (in inches): Y N NA 2. Child present? O	10. CSS/restraint type (see key): O IO O BPB Other O IO Base O Lap Belt None O RF CONV O L/S Belt	22. Replace CSS at event? Uninstalled or New CSS 23. Seat provided by: Parent Coalition			
1. Wt: Ht (in inches): Y N NA 2. Child present? O 3. Expectant mom? A. Seat history known?	10. CSS/restraint type (see key): O IO O BPB Other O IO Base O Lap Belt None O RF CONV O L/S Belt O FF/Harness O Vest/car bed Y N NA 11. Child safely near airbag? 12. CSS correct direction?	22. Replace CSS at event? Uninstalled or New CSS 23. Seat provided by: Parent Coalition 24. CSS Mfg:			
1. Wt: Ht (in inches): Y N NA 2. Child present? O 3. Expectant mom? O 4. Seat history known? O 5. CSS involved in crash?	10. CSS/restraint type (see key): O IO O BPB Other O IO Base Lap Belt None O RF CONV L/S Belt O FF/Harness Vest/car bed Y N NA 11. Child safely near airbag? 12. CSS correct direction? 13. Harness correct?	22. Replace CSS at event? Uninstalled or New CSS 23. Seat provided by: Parent Coalition 24. CSS Mfg:			
1. Wt: Ht (in inches): Y N NA 2. Child present? O 3. Expectant mom? O 4. Seat history known? O 5. CSS involved in crash? O 6. CSS checked before?	10. CSS/restraint type (see key): O IO O BPB Other O IO Base O Lap Belt None O RF CONV O L/S Belt O FF/Harness O Vest/car bed Y N NA 11. Child safely near airbag? 12. CSS correct direction?	22. Replace CSS at event?			
1. Wt: Ht (in inches): Y N NA 2. Child present? O 3. Expectant mom? O 4. Seat history known? O 5. CSS involved in crash? O 6. CSS checked before?	10. CSS/restraint type (see key): IO	22. Replace CSS at event?			
1. Wt: Ht (in inches): Y N NA 2. Child present? O 3. Expectant mom? O 4. Seat history known? O 5. CSS involved in crash? O 6. CSS checked before? O 7. If Yes, how many times?	10. CSS/restraint type (see key): O IO O BPB Other O IO Base O Lap Belt None O RF CONV O L/S Belt O FF/Harness O Vest/car bed Y N NA 11. Child safely near airbag? 12. CSS correct direction? 13. Harness correct? 14. Seat belt locked/tight/correct? O O 15. Lower Anchors correct?	22. Replace CSS at event?			
1. Wt:	10. CSS/restraint type (see key): O IO O BPB Other O IO Base O Lap Belt None O RF CONV O L/S Belt O FF/Harness O Vest/car bed Y N NA 11. Child safely near airbag? 12. CSS correct direction? 13. Harness correct? 14. Seat belt locked/tight/correct? O O 15. Lower Anchors correct?	22. Replace CSS at event? Uninstalled or New CSS 23. Seat provided by: Parent Coalition 24. CSS Mfg: 25. CSS Model Number: 26. CSS Mfg Date (MM/DD/YYYY): 7			
1. Wt:	10. CSS/restraint type (see key): O	22. Replace CSS at event? Uninstalled or New CSS 23. Seat provided by: Parent Coalition 24. CSS Mfg: 25. CSS Model Number: 26. CSS Mfg Date (MM/DD/YYYY): 27. CSS type (see key): 10			
1. Wt:	10. CSS/restraint type (see key): IO	22. Replace CSS at event? Uninstalled or New CSS 23. Seat provided by: Parent Coalition 24. CSS Mfg: 25. CSS Model Number: 26. CSS Mfg Date (MM/DD/YYYY): 27. CSS type (see key): 10 FF/Harness RF CONV BPB			
1. Wt:	10. CSS/restraint type (see key): O O O BPB Other O IO Base Lap Belt None O RF CONV L/S Belt O FF/Harness Vest/car bed Y N NA 11. Child safely near airbag? 12. CSS correct direction? 13. Harness correct? 14. Seat belt locked/tight/correct? 15. Lower Anchors correct? 16. Tether correct?	22. Replace CSS at event?			
1. Wt:	10. CSS/restraint type (see key): IO	22. Replace CSS at event? Uninstalled or New CSS 23. Seat provided by: Parent Coalition 24. CSS Mfg: 25. CSS Model Number: 26. CSS Mfg Date (MM/DD/YYYY): 27. CSS type (see key): O			
1. Wt: Y N NA 2. Child present? O 3. Expectant mom? O 4. Seat history known? O 5. CSS involved in crash? O 6. CSS checked before? O 7. If Yes, how many times? 8. Child location in vehicle: D Front Row Back Row Optional Rear Row X to indicate arrival location; M for new location	10. CSS/restraint type (see key): IO	22. Replace CSS at event? O Uninstalled or New CSS 23. Seat provided by: Parent Ocoalition 24. CSS Mfg: 25. CSS Model Number: 26. CSS Mfg Date (MM/DD/YYYY): 27. CSS type (see key): 10			
1. Wt:	10. CSS/restraint type (see key): IO	22. Replace CSS at event? Uninstalled or New CSS 23. Seat provided by: Parent Coalition 24. CSS Mfg: 25. CSS Model Number: 26. CSS Mfg Date (MM/DD/YYYY): 27. CSS type (see key): 10 FF/Harness RF CONV BPB Y N 28. Registration Card sent? 29. Parent installed CSS?			
1. Wt:	10. CSS/restraint type (see key): IO	22. Replace CSS at event?			
1. Wt:	10. CSS/restraint type (see key): O O O BPB Other O IO Base Lap Belt None O RF CONV L/S Belt O FF/Harness Vest/car bed Y N NA 11. Child safely near airbag? 12. CSS correct direction? 13. Harness correct? 14. Seat belt locked/tight/correct? 15. Lower Anchors correct? 16. Tether correct? 17. CSS Mfg: 19. CSS Mfg Date (MM/DD/YYYYY): O O O O O O O O O O O O O O O O O O O	22. Replace CSS at event?			
1. Wt:	10. CSS/restraint type (see key): IO	22. Replace CSS at event? O Uninstalled or New CSS 23. Seat provided by: Parent Coalition 24. CSS Mfg: 25. CSS Model Number: 26. CSS Mfg Date (MM/DD/YYYY): 27. CSS type (see key): 10			
1. Wt:	10. CSS/restraint type (see key): O	22. Replace CSS at event? O Uninstalled or New CSS 23. Seat provided by: Parent Ocoalition 24. CSS Mfg: 25. CSS Model Number: 26. CSS Mfg Date (MM/DD/YYYY): 27. CSS type (see key): 10			
1. Wt:	10. CSS/restraint type (see key):	22. Replace CSS at event? O Uninstalled or New CSS 23. Seat provided by: Parent Coalition 24. CSS Mfg: 25. CSS Model Number: 26. CSS Mfg Date (MM/DD/YYYY): 27. CSS type (see key): 10			
1. Wt:	10. CSS/restraint type (see key):	22. Replace CSS at event? O Uninstalled or New CSS 23. Seat provided by: Parent Coalition 24. CSS Mfg: 25. CSS Model Number: 26. CSS Mfg Date (MM/DD/YYYY): 27. CSS type (see key): 10			
1. Wt:	10. CSS/restraint type (see key): 10	22. Replace CSS at event? O Uninstalled or New CSS 23. Seat provided by: Parent Coalition 24. CSS Mfg: 25. CSS Model Number: 26. CSS Mfg Date (MM/DD/YYYY): 27. CSS type (see key): 10			
1. Wt:	10. CSS/restraint type (see key):	22. Replace CSS at event? O Uninstalled or New CSS 23. Seat provided by: Parent Coalition 24. CSS Mfg: 25. CSS Model Number: 26. CSS Mfg Date (MM/DD/YYYY): 27. CSS type (see key): 10			

CHILD NUMBER 2						
First Name Age: Years Months DOB (MM/DD/YYYY) / / / / / / / / / / / / / / / / /						
Official Use Only - See Guide Below						
About the chil	d & CSS/restraint	Check CSS/restrai	nt as it arrives	Installation		
1. Wt:	Ht (in inches):	10. CSS/restraint ty	· · · · <u>-</u>	22. Replace CSS at event?		
	V N NA	\simeq) BPB Other) Lap Belt None	Uninstalled or New CSS		
2. Child present	$\begin{array}{cccc} & & & Y & N & NA \\ & & & & & & \\ ? & & & & & & \\ \end{array}$	~ ~) Lap Belt () None) L/S Belt	23. Seat provided by: Parent Coalition		
3. Expectant mo	~ ~ ~	¥ ¥) Vest\car bed	24. CSS Mfg:		
4. Seat history l	known?		Y N NA			
5. CSS involved	I in crash?	11. Child safely nea	ar airbag?	25. CSS Model Number:		
6. CSS checked	d before?	12. CSS correct direct	$\sim \sim \sim \sim$			
7. If Yes, how m	nany times?	14. Seat belt locked		26. CSS Mfg Date (MM/DD/YYYY):		
		15. Lower Anchors	correct?			
8. Child location	in vehicle:	16. Tether correct?	000	27. CSS type (see key):		
미니니	Front Row	17. CSS Mfg:		O IO FF/Harness		
	Back Row			RF CONV O BPB		
	Optional Rear Row	18. CSS Model Nur	mber:			
X to indicate arriva	al location; M for new location			Y N		
and an array	Y N	19. CSS Mfg Date	(MM/DD/YYYY):	28. Registration Card sent? OO 29. Parent installed CSS? OO		
9. Driver wears			<u> </u>	30. Parent adjusted?		
lf seat arrives			Y N	31. All corrections made?		
go to ques		20. Labels missing' 21. Seat recalled?	? 00	Parent initials		
Tb						
Tech name (Please Print)	Te	ech cert.#	Senior	r Checker name (Please Print)		
No Misuse	~	Materials Provided	Comments:			
CSS Arrived U	¥	ns Collected mation Provided				
Voucher Give						
Key to CSS Typ	е		Resources	ofo Kids Cortification - usa safokids org		
IO Base = Infant o	IO = Infant only IO Base = Infant only with base Safe Kids Worldwide and Safe Kids Certification - usa.safekids.org CPS Board - www.cpsboard.org					
	RF CONV = Rear-facing convertible NHTSA hotline <u>www.nhtsa.dot.gov</u> 888-327-4236 FF/harness = Forward-facing with harness (FF only or FF/CONV) Children's Hospital of Philadelphia - <u>www.chop.edu/carseat</u>					
BPB = Belt-positio	ning booster	,	Latest edition LATCH Manu For CSS manufacturer's inst	al - <u>www.saferidenews.com</u>		
L/S belt = Lap/sho Direction		d 20 pounds must ride s		sition to protect the spine and neck.		
	 It is recommended that info specified by the manufactu 		ar-facing in a convertible infant/	toddler seat up to 35 pounds or the maximum weight		
Location	 All children under age 13 sho If a child must ride in the front 		full harness or properly adjusted s	houlder belt seated in the correct forward facing and		
	upright position should sit the • Move the vehicle seat back a	ere.		-		
	 If the vehicle has side airbag 	s or curtains, check the vel	nicle owner's manual and child rest	traint manual for instructions. and avoid resting their heads on a window or structural		
Harness	pillar of the vehicle. Infant seat harness straps	should pass through the	slots at or below the rear-facing	g baby's shoulders.		
	 Infant seat harness straps should pass through the slots at or below the rear-facing baby's shoulders. Toddler seat harness straps should pass through the slots at or above the forward-facing toddler's shoulders. Read seat instructions. A toddler is too large for a harness when the shoulders are above the top harness slots, or exceeds weight. 					
	 Harness straps must lay fla 	at on the chest and over	the hips. Harness straps must j	pass the "pinch" test: when the buckled straps are		
	pinched at the shoulder, there should be no slack or extra webbing. The harness retainer clip must sit at the child's armpit level, and the straps must be threaded properly through the clip. Boosters are used only with lap/shoulder safety belts. Most do not allow for a pre-crash locked safety belt.					
Belt-Positioning Booster Seats	Special products, such as	vests and Y harnesses u		crash locked safety belt. be used according to manufacturer's instructions and		
Installation	 the vehicle owner's manua Do not use LATCH and sa 	fety belts together.				
	Never install a rear-facing car seat in front of an airbag that cannot be turned off. Newer "smart" airbags may automatically deactivate, but follow vehicle manufacturer's instructions completely.					
	Safety belts must pass through the car seat exactly where the manufacturer directs. The car seat must not move more than 1 inch side to side or front to back when grasped at the belt path.					
	Use the tether as directed by the manufacturer and the vehicle owner's manual.					
	LATCH anchors are used only if both the vehicle and the car seat are equipped. Check vehicle manufacturer's manual to identify designated LATCH and tether locations. Follow manufacturer's instructions.					
	 Tethers are never attached to the lower anchor bars. Use tethers on rear-facing car seats only if the manufacturer so directs. 					
	 Vehicles made after 1996 should meet federal safety belt lockability requirements; no locking clip should be needed. Test vehicle safety belts by buckling the safety belt and pulling slightly upward on the lap belt. 					
	 Test vehicle safety belts by buckling the safety belt and pulling slightly upward on the lap belt. Tethers may be used in some vehicles to under 48 pounds and in others to 60 pounds. Older children who ride in harnessed seats will require special arrangements. Check with vehicle manufacturer. 					
Child Ready for	With the child's back and be	ottom against vehicle se	eat back, the knees should beno	d naturally at vehicle seat edge.		
Safety Belt	collarbone. The shoulder b	elt is never placed unde	on the hips, and the shoulder by the arm or behind the back.	belt rests between neck and shoulder on the		
	 Optimally, the child's feet s 	hould touch the floor.		nour standardized curriculum		
<u> </u>	THIS HSC IS NOT EXHAUSTIVE	ana onoula not be relied t	upon in place of the NHTSA 32-l	iour stanuaruizeu turritulliiri.		



SNAP Evaluation (to be filled out by the student)

Training Location:					
Training Date:					
SNAP Teachers:					
Course Evaluation:	Not at	all		Very	
Was the course clear and easy to understand?	1101 21	2	3	4	5
Was the course presented effectively by the SNAP Teachers?	1	2	3	4	5
3. Did the course increase your understanding of what happens	1	2	3	4	5
in a crash?					
4. Did the course increase your understanding of the local	1	2	3	4	5
restraint laws?					
5. Did the course increase your understanding of the types of	1	2	3	4	5
restraint systems?					
6. Did the course increase you skill to recommend to a	1	2	3	4	5
parent/caregiver an appropriate child restraint?					
7. Did the course increase your understanding of installation of	1	2	3	4	5
different types of child restraint?					
8. Did the course increase your understanding of correct use?	1	2	3	4	5
9. Was there enough time for the hands-on exercises?	1	2	3	4	5
CNAR Tarakan Fusikasikan					
SNAP Teacher Evaluation:					
Teacher's Name:					
	Not a	t all			Very
Was prepared for the class	1	2	3	4	5
Demonstrated a high level of knowledge	1	2	3	4	5
Responded to the needs of students	1	2	3	4	5
Demonstrated good instructor skills	1	2	3	4	5
How could this teacher improve his/her teaching skills?	1 -			<u> </u>	
The state of the s					
Teacher's Name:					
	Not a			1	Very
Was prepared for the class	1	2	3	4	5
Demonstrated a high degree of knowledge	1	2	3	4	5
Responded to the needs of students	1	2	3	4	5
Demonstrated good instructor skills	1	2	3	4	5
How could this teacher improve his/her teacher skills?					
Ganaral Course Evaluation					
General Course Evaluation	Poor		Good		Great
What was your overall impression of this course?	1 1	2	3	4	5
1. Titlat was your overall impression of this course:	1 '	1 -		J -T	
What do you feel could be done to improve the SNAP Training?					



Glossary

2-point seat belt: A lap belt that attaches at two points.

3-point CSS harness: A child harness that attaches at three points—two at the shoulder and one between the legs.

3-point seat belt: A seat belt with both a lap belt and a shoulder belt. It attaches at three points—one at the shoulder and two at the hips.

5-point CSS harness: A child safety seat harness that attaches at five points—two at the shoulder, two at the hips, one between the legs.

Α

Acceleration: Speeding up. Deceleration is slowing down.

Advanced air bags: An air bag that has been adapted to better protect children and adults who are not in the right position. See **air bag** below.

Air bag: A restraint system that automatically inflates in a crash. An air bag cuts down on head and chest injuries by acting as a cushion for the person. It spreads the forces of the crash over a wider surface. Air bags give added protection in collisions from the front. They are meant to be used *with*, or to supplement, lap and shoulder belts. Also called: **SRS**—supplemental restraint system; **SIR**—supplemental inflatable restraint; **SIPS**—side impact protection system; **IC**—inflatable curtain; **SIAB**—side impact air bag.

Armrest (on a CSS): A U-shaped bar which surrounds the child. Found on older models of child seats. Not a shield. Not connected to the harness system. Not part of the system intended to restrain the child. No longer allowed on child restraints meeting the current federal safety standards.

Armrest (in a vehicle): Found in the middle of the back seat of some vehicles. These usually pull down from the top of the vehicle seat back cushion. Some child seat manufacturers recommend against putting a rear-facing child seat in a vehicle seat with a pull down armrest.

Automatic locking retractor (ALR): A safety belt retractor that locks. The lock keeps the belt the same length at all times.



Automatic restraint: A type of protection system that restrains a person without any action by the person. Includes lap/shoulder or shoulder belts that wrap "automatically" around the person. Includes air bags.

В

Base (of a child seat): The base of a child seat is the lower part that rests on the vehicle seat. Some infant seats come with a separate base. The seat can be taken in and out of the base after the base is installed. This makes it easier to use since you don't need to install the base each time you use it.

Belt anchor points: Where the safety belt attaches to the vehicle.

Belt path or route: The place where the safety belt passes around or through the child seat to hold it in place.

Belt positioning booster seat (BPBS): A CSS that raises the child so that the lap and shoulder belts fit correctly. All BPBSs must be used with lap/shoulder (L/S) belts. BPBS models may have high backs, or be backless. Never use with a lap belt only across the child.

Belt-shortening clip or heavy duty locking clip: A heavy-duty locking clip used to shorten lap belts that have emergency locking retractors (ELRs). For use with a child seat. Not to be confused with a standard locking clip. Heavy-duty locking clips can only be obtained through a vehicle manufacturer (e.g., Ford, Nissan, or Toyota).

Best practice: The ideal way to do something. In passenger safety, "best practice" means the safest way to travel with a child. This workshop gives "best practice" guidelines in child passenger safety. It may not always be possible to use best practices in "real world" settings.

Belt webbing: Seat belt material.

Booster seats: Seats for children who have outgrown (over 40 pounds) convertible seats but are not ready for lap and shoulder belts alone. Booster seats are made with high backs for use in vehicles with low seat backs or no head rests. They are also made as a base without a back.

Buckle: The locking part of any seat belt. Buckles are usually attached to fabric webbing by metal or plastic stalks.

C

CPS: Child passenger safety. The overall issue of safety for children in vehicles. Indian Health Service Injury Prevention Program 2009



CRD: Child restraint device. See definition below.

CRS: Child restraint system. See definition below.

CSS: Child safety seat. See definition below.

Car seat: Common term for a child safety seat (CSS).

Chest clip: The clip on the harness straps of the child safety seat. Holds the straps in the right place on the child's chest.

Child Restraint System (CRS) or Child Restraint Device (CRD Any system or device that holds, or restrains, a child in place to prevent injury in a crash. Examples are child safety seats, seat belts, air bags, vests, and car beds. To meet federal safety standards (FMVSS 213), they must be crash tested.

Child Safety Seat (CSS): One type of child restraint system.

Children with special transportation needs: Children whose physical or behavioral conditions make it necessary to use special restraint systems.

Cinching latch plate: (also known as lightweight locking latch plate) A latch plate with a sliding lock and cinch feature which keeps the vehicle belt the same length at all times. This is key for safely installing a CSS. Found on some continuous loop lap and shoulder belts.

Combination (switchable) ELR/ALR retractor: A safety belt retractor that can be used in one of two ways. It can be in the emergency locking mode for adults. Then it can be switched to the automatic locking mode for a child safety seat. Check the vehicle belt for a label telling how to switch it. Also check the vehicle owner's manual. Some convert from ELR to ALR by pulling the belt all the way out of the retractor. As it rewinds, it should lock and hold at the right length.

Compliance tests: Crash tests done to find out whether child safety products meet required federal standards. In this case, FMVSS 213, established by NHTSA.

Continuous loop lap/shoulder belt: A three-point belt that uses one continuous strip of webbing that slides through the latch plate. It is connected at one end to the vehicle at the anchor point and the other to a retractor system.

Convertible child restraint: A child restraint that converts from rear-facing for infants to forward-facing for children up to 40 pounds.

Combination child seat/BPBS: A type of forward-facing child restraint that is used with an internal harness system for a child up to 40 pounds. When the child

Training for Safely Transporting Children

is over 40 pounds, the harness can be removed. Then the seat can be used as as a high back, belt positioning booster seat (BPBS).

D

Deceleration: Slowing down. (See "Acceleration").

Е

Emergency locking retractor (ELR): A retractor on a safety belt system that locks if the vehicle slows down suddenly or the belt begins to unwind quickly.

F

FAA approval: Certification that the child restraint can be safely used on an airplane. The approval means the restraint passed federal safety standards in compliance tests.

FMVSS 213: Federal Motor Vehicle Safety Standard that applies to all restraint systems for use as crash protection in vehicles for children up to 50 pounds.

FMVSS 225: Federal Motor Vehicle Safety Standard that applies to the systems (upper and lower) that anchor CSSs in place. These are separate from vehicle seat belts.

Fixed latch plate: Latch plate is permanently sewn or attached to the lap belt or to the combination lap and shoulder belt.

Foam noodle: This is a foam rod or tube about 4-5 inches around and five feet long. These are found in pool and toy stores. Cut off a piece the width of the child seat base. Use it to raise the base of the seat to a 45-degree angle. A rolled up towel or newspapers, etc., can work the same way.

Forward-facing child restraint: A restraint system for use only in the forward-facing position for a child at least age 1 <u>and</u> at least 20 pounds.

Free sliding latch plate: Type of latch plate that has no lock feature to securely position the latch plate along the belt webbing. The latch plate "freely" slides along the belt. This type of system must have a locking retractor to keep the belt at a fixed length for child seat installation. Or it must be used with a regular locking clip.

Frontal air bag: An air bag installed in the dashboard.



Frontal collision/impact/crash: An impact at the front end of the vehicle. The most common type of collision.

G

Gross misuse: Life-threatening child restraint mistakes. Mistakes that defeat the purpose of using the child restraint.

Н

Harness retainer clip: A plastic (sometimes cloth) tie or clasp that holds the shoulder straps close together over the child's chest at armpit level. Keeps harness straps in position on the shoulders.

Harness strap: The child seat straps used to hold the child in the safety seat.

Harness threading: The way the harness is threaded through the CSS. Harness straps should be in lowest slots for rear-facing infants (at or below shoulder level). For forward-facing, use top slots (at or above shoulder level). Always refer to the child seat manufacturer's instructions for proper location. Heavy duty locking clip (HDLC) or belt shortening clip: A flat, H-shaped metal clip, used to shorten a lap belt with an emergency locking retractor so it will secure a child restraint. Can also be used to prevent webbing from sliding through a sliding latch plate. Heavy Duty Locking Clips can only be obtained from a vehicle manufacturer.

Incompatibility: The ways in which motor vehicle seats, safety belts, and other elements prevent the correct use of child restraints.

Infant-only restraint: A child restraint system designed for use only by a baby (usually weighing less than 17-22 pounds).

Integral (integrated) child seat: A child-sized forward-facing restraint and/or BPBS built into a vehicle seat. Some have full harness and hold children over 20 pounds. Others are belt-positioning boosters for use with lap/shoulder belts.

L

Lap belt: A seat belt anchored at two points for use across a vehicle occupant's thighs/hips.



Training for Safely Transporting Children

Lap/shoulder (L/S) belt: A seat belt that is anchored at three points. They restrain the person at the hips and across the chest and shoulder. Also called a combination L/S belt.

LATCH: Lower Anchors and Tethers for **CH**ildren (the new acronym for standardized vehicle anchorage system).

Latch plate: The metal piece that slides into the buckle. Switchable latch plates have a lock button to allow the seatbelt to be locked around the child safety seat.

Lateral collision/impact: A crash or impact into the side of a vehicle. Side air bag systems cut down on head and upper body injuries in lateral crashes. This type of impact is usually the most severe and deadly collision.

Locking clip: A flat H-shaped metal clip that fastens the lap and shoulder belt webbing at a sliding latch plate. The locking clip keeps the webbing from sliding through. This is the clip that comes with most child safety seats. Should be fastened just above the latch plate. Cannot be used in place of a heavy duty locking clip.

Locking latch plate: A latch plate that holds the lap belt snug after it has been adjusted. Type of latch plate that contains a metal bar on the underside of the hardware that "locks" the belt in place.

Lower anchorage system: New method to secure Child Restraint System (CRS) to vehicles. Works separately from the vehicle seat belts.

M

Manual seat belt: A seat belt that must be fastened and adjusted by the occupant. Often found in the rear center seat.

Model Year (MY): The year a vehicle or child restraint system was made.

Ν

National Highway Traffic Safety Administration (NHTSA): The federal agency that sets standards for how well vehicles and child restraints should work. NHTSA also promotes highway and transportation safety.

0

Overhead shield: See "Tray shield".

Ρ

Passenger air bag: An air bag that is in the right front part of the passenger area. It is larger than the driver bag and would restrain either center or right-front occupants.

Training for Safely Transporting Children

Primary prevention: Stopping an incident before it happens. Or preventing an injury from an incident that has already happened.

R

Rear-facing infant seat: Type of child restraint made specifically for children from birth up to about 20 pounds. To be used in the rear-facing mode only.

Retractor: A mechanism that rolls up the unused webbing of the safety belt when it is not in use and takes up slack around the user.

S

Seat belt: The webbing, anchor and buckle system that restrains the occupant and/or child safety seat found in the vehicle.

Seat belt positioning devices: These are products marketed and sold to adjust the vehicle seat belt to fit a child. There are no federal safety standards for these products. NHTSA recommends the use of child safety seats and booster seats instead of these products.

Seat bight/seat crack: The crack between the bottom of the vehicle seat cushion and the back cushion.

Sewn-on latch plate or fixed latch plate: Latch plate is permanently sewn to the lap belt or lap/shoulder belt.

Shell: The molded plastic part of the child safety seat. In some models, the shell is attached to or reinforced by a metal bar or frame.

Shield booster seat: A platform that raises the child. It puts a shield across the lap and lower stomach to hold the child. A vehicle lap belt holds the booster seat. Some models have removable shields and convert to a belt-positioning booster seat (BPBS).

Shoulder belt positioners or comfort guides: Devices (some built-in and some add-ons) that can be used to reposition shoulder belts so they fit across the shoulder rather than across the neck. Aftermarket belt positioners are not currently tested by NHTSA.

Shoulder harness slots: Slots in the back of the child safety seat through which the shoulder straps are routed.

Side impact air bags: Cut down on head and chest injuries to adults in side crashes. Children seated close to a side air bag may be at risk of being seriously hurt or even killed if the air bag inflates. Check with the vehicle dealer or vehicle owner's manual for information about danger to children.

Sliding latch plate: A latch plate that moves freely on a continuous loop of vehicle belt webbing.

Indian Health Service Injury Prevention Program 2009



Training for Safely Transporting Children

Switchable retractor: See "Combination (switchable) ELR/ALR retractor" above.

Т

T-Shield: Part of a child safety seat. A "T" shaped pad that is attached to the shoulder harness straps. It fits over the child's stomach and hips and buckles between the legs.

Tether anchor: The bracket used to attach the tether hook and strap at the correct anchor point in the vehicle. Or the point at which the tether strap attaches to hold a CSS in place. Check the vehicle owner's manual to find the anchor point.

Tether strap: An extra belt that anchors the top of the child seat to the vehicle frame. It keeps the seat from tipping forward on impact. Can provide extra protection. Can be added after-market or installed at the factory. A tether strap is found on most child safety seats made after September 1, 1999.

Tough choices: Refers to the times when parents must make hard choices about how to keep their child safe. "Best practice" is not always obvious. Child passenger safety principles sometimes conflict with each other. And it may be hard to keep up with new technology in vehicles and restraint systems.

Tray shield: Part of a child safety seat. A wide, padded surface that swings down in front of the child. Attaches to shoulder straps and crotch buckle. Looks like a padded armrest, but is a part of the harness system.

Turn-around time: The point at which the child has grown enough that he or she can be turned from rear-facing to forward-facing in the vehicle. Also, the weight the child must be before a convertible seat can be turned to face forward. Check the instruction book to find the turn-around time.

V

Vehicle occupant protection system: A device used to protect the passengers riding in a vehicle. These systems include seat belts, air bags, child safety seats, padded panels inside the vehicle, and many others.

Vehicle occupant restraint system: A system or device that protects passengers by holding them in place. Examples are seat belts, child seats, and vests. Vehicle occupant restraint systems are one type of protection system.

Vest: A child restraint that has shoulder straps, hip straps, and sometimes a crotch strap. Can be custom-made to fit any child. Must be used along with the vehicle belt system.