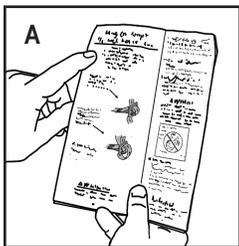


# Installing Your Child's Car Seat Tightly

## LATCH, Tethers, and Seat Belts Explained

### Tight Installation = Better Protection

To be safe, your child's car safety seat (car seat) must be tightly secured in the car with the seat belt or LATCH system. If the LATCH straps or seat belt do not stay tight or the car seat slides easily on the vehicle seat, your child could be seriously injured in a crash.

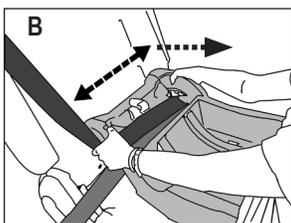


**Always** read the instructions that come with the car seat (A). **Also** read the section on seat belts and car

seats in your car owner's manual.

To check for a tight fit, hold the car seat where the LATCH strap or seat belt goes through the car seat (B). Pull forward and from side to side. If the car seat moves more than one inch, it is not held tight enough.

**B.** To check tightness, hold the car seat at the belt path, pull side to side and forward. It should not move more than 1 inch.



**For help learning how to install your car seat, go to a local child passenger safety checkup location. (See Resources on page 4.)**

**Montgomery County CPS Program**  
Fire and Rescue Service  
For more information call:  
Hotline Number 240-777-2222

### The LATCH System

In newer cars, some seating positions have LATCH (Lower Anchors and Tethers for Children). LATCH is another way to install car seats. Using LATCH is often easier than using a seat belt to install a car seat.

Using the LATCH lower anchors is not safer than using a seat belt to install a car seat. The key is proper installation. Sometimes lower anchors will provide a better fit. Other times the seat belt is better or is the only option. Wherever you install the car seat, choose the one method that gives a good fit.

### LATCH System Parts (E)

- **On car seats:** Lower anchor straps come with all car seats. Forward-facing car seats also have a tether strap.

A few car seats have lower anchor connectors that are rigid, but most are on flexible straps.

LATCH has been on all car seats for over ten years. Car seats without LATCH are too old and should not be used.

- **In cars:** All 2003 and newer cars, and many 2001–02 cars, come with tether and lower anchors. Tether anchors have been required in most cars since 2000. Look for symbols to help you find anchors that are hard to see (C and D).

In a car with LATCH, there must be at least two sets of LATCH lower anchors and three tether anchors. Some seat positions do not have LATCH.

**C.** Symbol for a tether anchor



**D.** Symbol for a lower anchor



### Back Seat is Safest

The back seat is the safest place for children under 13, with or without a front air bag.

**NEVER** put a rear-facing infant or toddler in the front seat of a car with a front air bag that has not been turned off. Infants must always ride in the back seat facing the rear of the car.

### LATCH DOs and DON'Ts

**DO** read and follow the instructions for the car seat **and** the car.

**DO** tighten LATCH straps after connecting them to the anchors in the car. In most cases, tighten the lower anchor straps before tightening the tether strap.

**DO** use the seat belt instead if your child weighs over the weight limit for using the lower anchor strap or the strap does not hold the car seat tight enough.

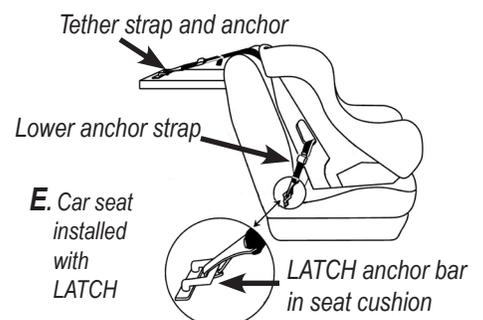
**DO** tether a forward-facing car seat installed with seat belt **OR** lower anchor strap.

**DO NOT** use both the seat belt and lower anchor straps, unless the car **AND** the car seat instructions say it is okay.

**DO NOT** use the lower anchors in the center position to install a car seat **UNLESS** the car **AND** the car seat instructions allow it. Instead, use the seat belt to install in the center.

**DO NOT** attach two hooks to one LATCH lower or tether anchor.

**DO NOT** allow children to play with unused seat belts (see page 4).



### Tethers Protect the Head!

A tether adds extra protection to a forward-facing car seat installed with a seat belt or with the lower anchor strap. In a crash, it holds the top of the car seat back.



F. A tether strap holds the top of car seat in place.

This helps prevent serious head and neck injuries. (G & H show how this works.)



G. Crash without a tether



H. Crash using a tether

**IMPORTANT!** Hook a tether only to an anchor made for car seat tethers. Read the car owner’s manual to find them in your car. *Never* hook a tether to other vehicle parts.

### Tethering Parts

- **On car seats:** Car seats made since September 1999 that can be used forward-facing have tether straps. Only tether using a strap from the car seat maker that is made for this use.
- **In cars:** Cars made since model year 2000 have tether anchors in three or more places. Read the car owner’s manual and look for the tether symbol (page 1, C).

For an older car, a kit might be available so a tether anchor can be added. For more information, check the car owner’s manual or contact a car dealer.

### Parts of a Seat Belt

**Buckle:** The part of the seat belt that the latchplate goes into. It has the release button.

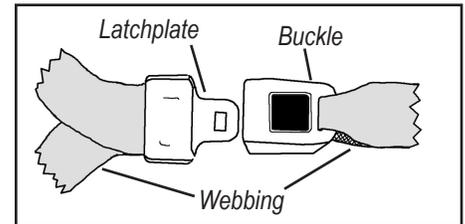
**Lap belt:** The strap that goes over the lower hips and thighs. Some are part of a lap-shoulder belt. Others are lap-only belts, which have no shoulder part. On either, this part is shortened to hold a car seat tightly.

**Latchplate:** The flat piece of metal that clicks into the buckle.

**Retractor:** The spool that pulls in slack and locks a seat belt. It usually is not visible. (Many lap-only belts do not have a retractor and instead tighten and lock by pulling the strap through the latchplate.)

**Shoulder belt:** The strap that goes across the chest and over a shoulder. Usually the lap and shoulder belts are connected (a lap-shoulder belt).

**Webbing:** The heavy fabric strap.



All seat belts have these basic parts.

### Automatic Seat Belts Are Problems for Car Seats

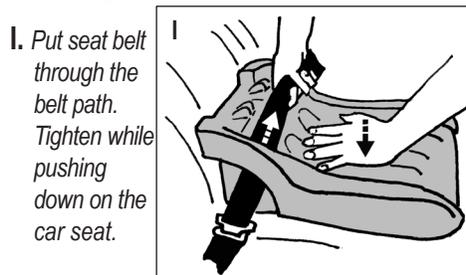
Automatic belts are found in the front seat of some older cars. They can cause problems when installing car seats. **The best way to avoid these problems is to keep children in the back seat.**

Belts that are attached to the door can never be used to install car seats. If there is a shoulder belt that runs along a track above the door frame, and if there is no other seating option, be sure to read the car owner’s manual carefully. A special part may be needed for this type of belt to work. See SBS USA (page 4, Resources) for a list of special parts.

### Installing a Car Seat with a Seat Belt

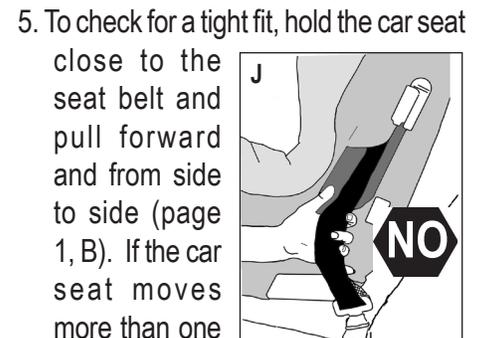
The following steps are typical. However, it is very important to read the instructions that go with your own car seat, which might be different.

1. Put the seat belt through the belt path on the car seat. Use the path shown on the car seat labels and instructions. (If it is a convertible car seat, there are two belt paths: one for when rear facing and one for when forward facing. Use the correct one.)
3. Know how to make the lap part of the belt stay locked around the car seat. (Follow car seat instructions and the car owner’s manual.)
4. Follow the instructions for attaching and tightening the tether strap for forward-facing car seats (page 4).



I. Put seat belt through the belt path. Tighten while pushing down on the car seat.

2. The lap part of the belt must be tight. To make it tight, push the car seat down into the vehicle seat cushion while you tighten the belt. You will probably need to push firmly (I).



J. Belt too loose. If the car seat moves more than one inch or the belt stays loose (J), the car seat is not tightly secured.

## Check Your Owner's Manual!

The car manual should have details about using the seat belt to install a car seat. Directions vary depending on the type of retractor and latchplate on your seat belt. Types are described below.

## Types of Seat Belt Retractors

### 1. Emergency locking retractor

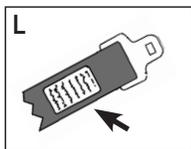
This type locks only during a crash or sudden stop. It can be on a lap-shoulder belt or a lap-only belt. With this type, the belt can lengthen during normal driving. If your car seat does not have a built-in lock-off (see car seat instructions), you will need a locking clip to secure a car seat (page 4, T).

### 2. Automatic locking retractor

This retractor locks whenever you stop pulling it out. To check, pull about two feet of webbing from the retractor and then stop. Now try to pull more webbing out. If it cannot lengthen, it is an automatic locking type. When the car seat is installed, push all the slack back into the retractor to make this type hold the car seat tightly.

### 3. Switchable retractor

This type is the most common. It has an emergency locking retractor (like 1, above) that can be switched to an automatic locking retractor (like 2, above). It may be on either a lap belt or a lap-shoulder belt. The belt may have a label on it telling you how it works (L). You can also read about it in the car owner's manual.



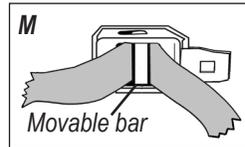
L. Label on seat belt

To switch the retractor: First run the seat belt through the car seat belt path and buckle. Next slowly pull on the shoulder belt until all the webbing is out of the retractor. Now let go of the belt. (You may hear it clicking as it locks into the retractor). Push loose webbing back into the retractor. When all the slack is in the retractor, the belt will stay tight around the car seat. The belt will loosen only when it is unbuckled.

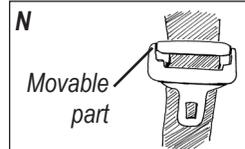
## Look for These Four Types of Seat Belt Latchplates

### 1. Seat belts with locking latchplates

Locking latchplates (M & N) usually work well with car seats. They can be found on lap-only belts and on lap-shoulder belts. A movable bar or other movable part keeps the belt snug after it is tightened.



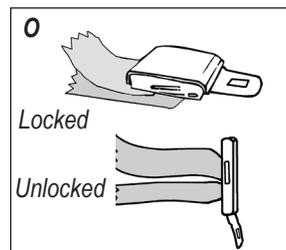
M. The backside of one type of locking latchplate.



N. The front side of another type of locking latchplate.

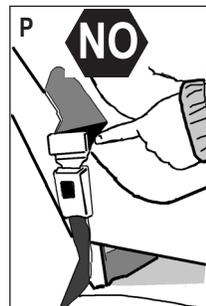
To tighten this type of latchplate, pull on the free end of a lap-only belt or pull up on the shoulder part of a lap-shoulder belt.

**Warning! Locking latchplates must be in a locked position to hold a car seat (O).**

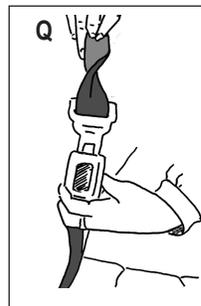


O. Locking latchplate in locked position and unlocked position

Check to see if the webbing is locked or unlocked at the latchplate (O, P). If unlocked, the latchplate will not hold the belt tightly. To fix, try twisting the buckle webbing up to three times to shorten it. If that does not work, tighten the belt around the car seat, then unbuckle, flip the latchplate backwards, and rebuckle it (Q).



P. Locking latchplate in unlocked position

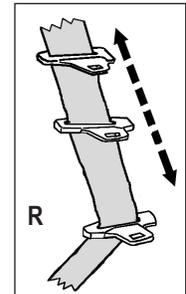


Q. Locking latchplate flipped.

Some locking latchplate types (N) that are found on lap-shoulder belts may get looser over time. A locking clip (page 4, T) may be needed to keep them tight.

### 2. Lap-shoulder belt with a free-sliding latchplate

Many lap-shoulder belts have a latchplate that allows the belt webbing to slide through even when the belt is buckled (R). This type of seat belt has a retractor to pull in slack.

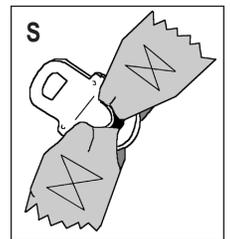


R. Sliding latchplate on lap-shoulder belt

Check to see if the belt has a switchable retractor. If it does not, you will need a locking clip (page 4, T) to lock the belt around a car seat. Some belts are labeled to tell you the locking clip is needed (L).

### 3. Sewn-on latchplate

This latchplate is permanently stitched to the belt webbing (S). It can be on a lap-only belt or a lap-shoulder belt. Check to see if the belt is attached to a switchable retractor. If it is not, it is best to use another seating position in the car. If you must use this position, you might need to use a special heavy-duty clip to shorten the lap part of the belt (see page 4). Get help from a Child Passenger Safety Technician. (See page 4, Resources.)



S. Seat belt with webbing sewn to latchplate

### 4. Switchable latchplate

This type normally is like a sliding latchplate, but can be switched to lock onto the belt webbing by moving a button or turning a dial to the "child" setting.

## How to use a locking clip on a lap-shoulder belt

A metal locking clip (T) is used to keep some seat belts tight. It is used to lock a lap-shoulder belt with a sliding latchplate (page 3, R). However, if this type of belt has a switchable retractor (page 3), a locking clip is usually not needed.

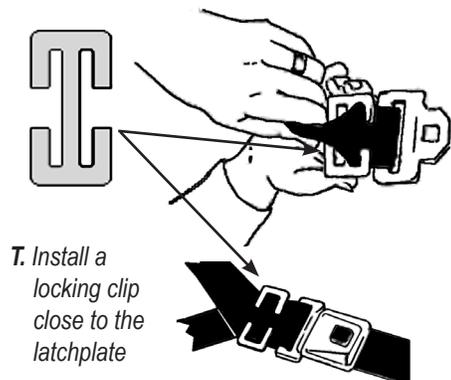
A locking clip often comes with the car seat. If you do not have one, contact the car seat or vehicle maker. Some stores sell locking clips.

Some car seats have “lock-offs” built in. Lock-offs keep the seat belt tight, so a locking clip should not be needed. Read the car seat instructions to be sure.

### Using a locking clip

1. Put the belt through the correct belt path on the car seat and buckle it. Pull on the shoulder belt to tighten the lap part.
2. Hold the two parts of the webbing together at the latchplate so they won't slide. Then unbuckle the belt.
3. Put both pieces of webbing through the locking clip together, close to the latchplate (T).
4. Buckle the belt again, and make sure the car seat is installed tightly. If not, start again, making the belt a little shorter.
5. Remember to remove the locking clip when the belt is not holding a car seat.

**WARNING:** The locking clip that comes with a car seat must **NEVER** be used on a lap-only seat belt.



T. Install a locking clip close to the latchplate

## How do I use a lap belt with retractors that do not lock?

Some cars made before 1996 have seat belts with emergency locking retractors on the lap belt (see page 3). Most of these have sewn-on latchplates (page 3,S). If this kind of belt does not have a switchable retractor (page 3), the only way to tighten it is with a special belt-shortening clip.

This special clip looks like a regular locking clip, but is made from extra-strong metal. Some versions are a little bigger, about three inches long.

**WARNING!:** You should **never** use a regular locking clip to shorten a belt. Doing so would put your child in serious danger in a crash. The regular clip could bend and release the belt, which could lead to serious injury.

You can get a belt-shortening clip **only** from Ford, General Motors, and Toyota. Your car owner's manual might explain how to use it. If the manual does not have instructions, call the car maker's customer service number.

If you have questions about how to use a belt-shortening clip, get help at a local child passenger safety checkup location. (See Resources.)

Part numbers for belt-shortening clips are:

Ford:	F03Z-5461248-A
General Motors:	94844571
Toyota:	73119-22010

## Can I use one of those seat belt tightening products?

Use of add-on seat belt tightening products is **NOT** recommended by car makers and most car seat makers. Using them may void your warranty on your car or car seat. Tighten belts by following the car and car seat instructions.

Some makers of these products say they have crash tested them. However, there is no safety agency that has a crash test for these types of products.

## My car has scooped-out seat cushions. How can I install my child's car seat?

Some vehicle seats have hollows and humps that prevent the base of the car seat from resting flat on the cushion. Use a position with a flat cushion, or find a car seat with a base that fits better in your car.

## Why do loose objects and car booster seats need to be secured?

In a crash, anything loose in the car is thrown around and can hurt people in the car. Sometimes serious injuries occur from even very small objects hitting a person in the head. It is very important to keep loose objects in the trunk or secure them in the cargo area. When a child's booster seat is not being used, the seat belt should still be buckled around it.

## WARNING!: Keep unused seat belts away from children

A child can be seriously injured by a shoulder belt wrapped around his or her neck. It can get locked and become hard to make loose again. Teach children never to play with seat belts. Keep unused seat belts away from them. One way to do this is to buckle the belt before installing the car seat with LATCH. For unused belts next to a child, you can buckle the belt and lock the retractor (see page 3).

## Resources

**Car seat maker:** Call or go to its website for helpful information, including videos.

**NHTSA:** 888-327-4236, 800-424-9153 (tty), [www.nhtsa.gov](http://www.nhtsa.gov)

### Find a Child Passenger Safety

#### Checkup Location:

866-732-8243, [www.seatcheck.org](http://www.seatcheck.org)

### SafetyBeltSafe U.S.A. (SBS USA):

Safety information; list of special seat belt parts: [www.carseat.org](http://www.carseat.org);  
Helpline: 800-745-7233

### The Children's Hospital of Philadelphia:

[www.chop.edu/carseat](http://www.chop.edu/carseat)