

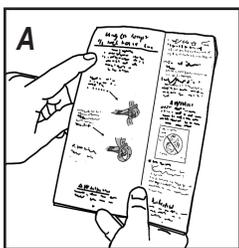
Installing Your Child's Car Seat Tightly

LATCH, Tethers, and Seat Belts Explained

Tight installation = better protection

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

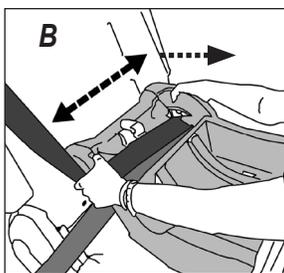
Always read the instructions that



come with the car seat (A). Also read the sections on seat belts, air bags, 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 1 inch, it is not held tightly enough.

B. To check installation tightness, hold a car seat at the belt path. Pull forward and push side to side. It should not move more than 1 inch. (A car seat base is shown.)



Need help? Talk to someone who is trained to teach people how to properly use car seats. (See Resources on page 4.)



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 to install a car seat is often easier than using a seat belt.

Using the lower anchors of LATCH is not safer than using a seat belt to install a car seat. The key is proper installation. Sometimes using lower anchors will provide a better fit. Other times, the seat belt is better or is the only option. Choose the one method that works best for installing the car seat in your car.

LATCH system parts

- **On car seats (E):** All car seats can be installed using a lower anchor attachment. Forward-facing car seats also have a tether strap. (Any car seat that does not have these LATCH parts is too old to use.)

Most car seats have lower anchor connectors on flexible straps. A few have rigid connectors with no straps.

- **In cars (E):** Cars made since 2003, and many made in 2000–2002, have lower anchors. In addition, 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 that has LATCH, there must be at least two sets of lower anchors and three tether anchors. Some seat positions do not have LATCH.

C. The symbol for a tether anchor.



D. The symbol for a lower anchor.



Back Seat Is Safest

The back seat is the safest place for children under 13 to ride, even 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 should 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 to install a car seat if your child weighs over the weight limit for using the lower anchor strap or anytime the seat belt provides a better installation.

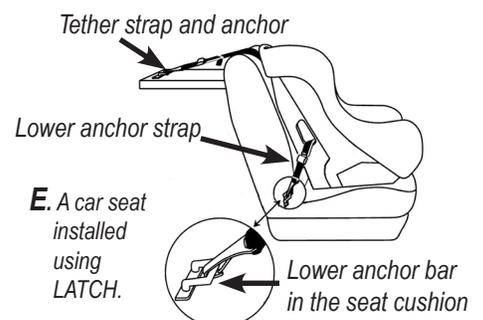
DO attach the tether of a forward-facing car seat, whether it is installed using a seat belt or a lower anchor strap.

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

DO NOT use 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 anchor.

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

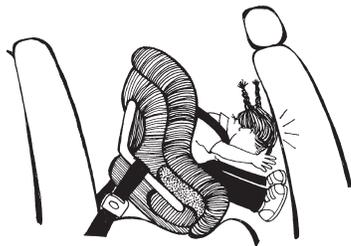


Tethers protect the head!

A tether adds extra protection to a forward-facing car seat installed using a seat belt or lower anchor strap. In a crash, it holds the top of the car seat back. This helps prevent serious head and neck injuries. (G & H show how this works.)



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



G. A crash without a tether.



H. A crash using a tether.

Tethering parts

- **On car seats:** Since 1999, car seats that can be used forward facing have had a tether. Tether a car seat using only this strap that the car seat maker has provided.
- **In cars:** Most cars made since model year 2000 have tether anchors in three or more places. Read the car manual and look for the tether symbol (page 1, C).
In some older cars, tether anchors can be installed using a kit from the car maker. For more information, check the car owner's manual or contact a car dealer.

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.

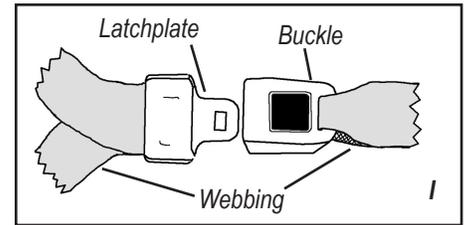
Parts of a seat belt

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

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.

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



All seat belts have these basic parts.

Latchplate: The flat piece of metal that clicks into the buckle (I, above).

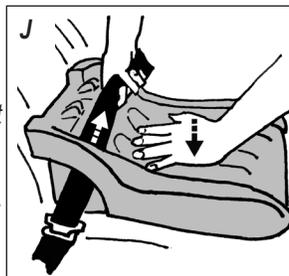
Retractor: The spool that pulls in webbing slack and locks a seat belt. Usually, you can't see it. (Many lap-only belts do not have a retractor. This type tightens and locks by pulling the strap through a latchplate that locks.)

Installing a car seat using a seat belt

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

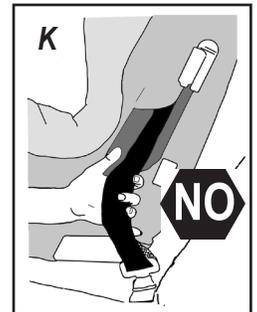
1. Put the seat belt through the belt path on the car seat. The car seat labels and instructions show how. (For a convertible car seat, there are two belt paths: one for rear facing and one for forward facing. Use the correct one.)
3. Know how to make the lap part of the belt stay locked around the car seat. (Follow instructions for the car seat and the car. See next page.)
4. For forward-facing car seats, attach and tighten the tether strap (page 4).

J. Put the seat belt through the belt path. Tighten the belt while pushing down on the car seat. (A car seat base is shown.)



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

5. To check the installation, hold the car seat close to the seat belt, and pull it forward and push it from side to side (page 1, B). If the car seat moves more than 1 inch or the belt stays loose (K), the seat is not installed tightly enough. Review the manual and try again.



K. This belt is too loose.

Automatic seat belts are problems for car seats

The front seats of some older cars have automatic seat belts. These often cause problems for car seat installation. **The best way to avoid these problems is to keep children in the back seat.**

Seat belts that are attached to the car door can never be used to install car seats.

If the shoulder belt runs along a track above the door frame, be sure to read the car owner's manual carefully. A special add-on part may be needed for installing a car seat. (See SBS USA, on page 4, for a list of special parts.) Install a car seat here only if absolutely necessary.

Check your owner's manual!

Read your car manual to learn about the retractors (spools) and latchplates in your car. The types are described on this page.

Types of seat belt retractors

1. Emergency locking retractor

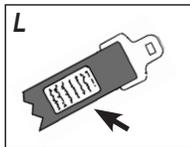
This type locks only during a crash or sudden stop. It can be on a lap-shoulder belt or a lap-only belt. If this type has a sewn-on or free-sliding latchplate (see the third column), the belt can lengthen during normal driving. See page 4 for ways to make these types of seat belts safe to use for installing a child's car seat.

2. Automatic locking retractor

This retractor locks whenever you stop pulling webbing out. To check, pull about two feet of webbing from the retractor and then stop. Now, try to pull more webbing out. If the belt cannot lengthen, it has an automatic locking retractor. When a 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 most common. It has an emergency locking retractor (like 1, above) that can be switched to an automatic locking retractor (like 2, above) when used for a car seat. 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). Also, read about it in the car owner's manual.



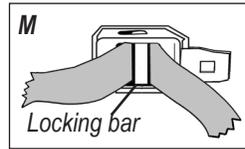
L. Label on seat belt

To use a switchable retractor, first put the seat belt through the car seat belt path and buckle it. Next, slowly pull the belt webbing all the way out of the retractor, and then let go of the belt. (You may hear it clicking as it locks into the retractor). Push webbing slack back into the retractor. When all the slack is in the retractor, the belt will stay tight to hold the car seat. The belt will loosen only when it is unbuckled.

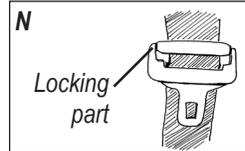
Types of seat belt latchplates

1. Locking latchplate

Locking latchplates (M, N) usually work well with car seats. They can be found on lap-only belts and on lap-shoulder belts. A part on the latchplate pinches the webbing to keep it from sliding through the latchplate after the belt is buckled and tightened.



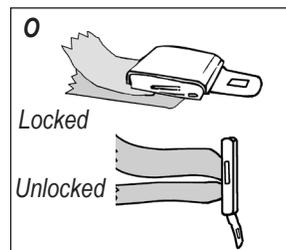
M. The back of one type of locking latchplate.



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

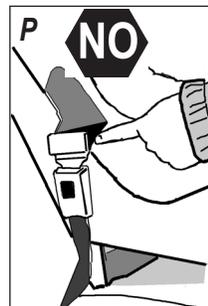
To tighten this type of latchplate, pull on the free end of a lap-only belt or pull up on the shoulder part of a lap-shoulder belt.

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

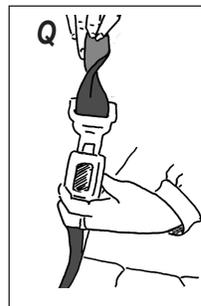


O. A locking latchplate in a locked position and in an unlocked position.

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



P. A locking latchplate in unlocked position.

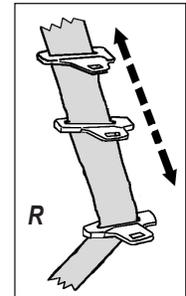


Q. A locking latchplate flipped.

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

2. Free-sliding latchplate

The latchplate for many lap-shoulder belts is a type that the webbing can slide through freely, even when the belt is buckled (R).

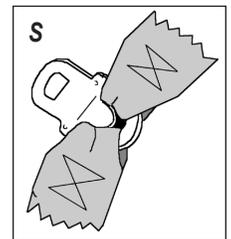


R. Sliding latchplate on a lap-shoulder belt.

A seat belt with this latchplate type always has a retractor to hold and lock webbing slack. Check to see if the retractor is a switchable type. If it isn't, you will need a locking clip to lock the belt to hold a car seat (page 4, T). Some belts are labeled to tell you a locking clip is needed (L).

3. Sewn-on latchplate

This type of latchplate is permanently stitched to the belt webbing of a lap-only or lap-shoulder belt (S). Check to see if the belt has a retractor that locks for car seats. If not, it is best to use another seating position for a car seat. If you *must* use this position, you will need to use a special heavy-duty locking clip for car seat installation (see page 4). Get help from someone trained to help with car seats. (See *Resources*.)



S. Seat belt with webbing sewn to latchplate.

4. Switchable latchplate

This type is like a sliding latchplate, but it can be switched to a type that locks for car seat installation. Look for a button or dial on the latchplate that can be set to the "child" setting for use with a car seat.

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

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

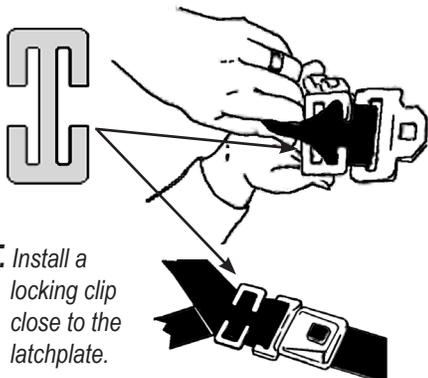
A locking clip often comes with the car seat. If you do not have one, contact the car seat or vehicle maker. Also, some stores sell locking clips.

Some car seats have a feature called a "lock-off." A lock-off holds a seat belt to a car seat to keep it tight, so a locking clip might not be needed. Read the car seat instructions to be sure.

Using a locking clip

1. Put the seat belt through the correct belt path on the car seat and buckle it. Push down on the car seat, and pull on the shoulder belt to shorten the lap part of the belt.
2. Hold the two parts of the webbing together near the latchplate (so it can't slide). Then unbuckle the belt.
3. Put both pieces of webbing through the locking clip, close to the latchplate (as shown, T).
4. Buckle the belt again, and make sure the car seat is installed tightly. If it is not tight, try the steps again, making the lap belt a little shorter.
5. Remove a locking clip when the seat belt is no longer used for 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 that has retractors that don't lock?

Some cars made before 1996 have seat belts with emergency locking retractors for the lap belt and sewn-on latchplates (see page 3). If this kind of belt cannot lock tight for car seat installation (as shown on page 3), a special belt-shortening clip *must* be added to lock it.

This special clip looks like a regular locking clip, but it is made from extra-strong metal and is usually bigger.

WARNING! Never use a regular locking clip to do the job of a belt-shortening clip. The regular clip could bend and release the belt, which could seriously injure your child in a crash.

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

If you have questions about when and how to use a belt-shortening clip, talk to someone in your area trained to help with car seats. (See *Resources*.)

Part numbers for belt-shortening clips are:

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

Can I use a seat belt tightening device?

Using an add-on seat belt tightening product is *not* recommended. No safety agency has a crash test for these types of products. Using one may void the warranty on your car or car seat. Tighten seat belts only in the way described in the car and car seat instructions.

What if my belts have dynamic locking latchplates?

Dynamic locking latchplates, found in some newer cars, grab onto the belt webbing in a crash. However, they are not made to hold a car seat installation tight. For these belts, follow the instructions for switchable retractors (in the car seat manual and on page 3) to install a car seat.

My car has uneven 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 narrower car seat that fits better.

Why must loose items and booster seats 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, buckle the seat belt around it if it is not secured using the lower anchors.

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 lock 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.safercar.gov

Find someone to help: 866-732-8243, www.seatcheck.org (select Inspection under Installation Help) or <http://cert.safekids.org> (select Find a Tech)

SafetyBeltSafe U.S.A. (SBS USA): Safety information, list of special seat belt parts: www.carseat.org
Helpline: 800-745-7233

The Children's Hospital of Philadelphia: www.chop.edu/carseat