

# 10 Most Common Car Seat Mistakes & How to Fix Them

(We call them Misuses.)



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## 1 Misuse: The vehicle's lap and shoulder belt are not in a locked mode, allowing your Child Safety Seat to become loose during routine driving.

**Solution:** Determine how your vehicle seat belt locks and lock it.

There are two parts of the system that have the potential to lock.

1. At the latch plate
2. At the retractor, the mechanism that pulls or winds the extra seat webbing back up

To determine which you have, perform the following tests:

- Buckle the vehicles seat belt as if there were someone sitting in the seat. Using your non-dominant hand (your left hand for a right-handed person) pull up on the portion of the seat belt that would be across the lap. If you have a Locking Latch Plate the belt should not pull up, in other words it will feel "locked". If the belt pulls up freely, perform the next test.
- At the shoulder/retractor slowly pull the vehicles seat belt out of the retractor **all** the way. Allow about 6"-8" to be drawn back into the retractor. Stop and GENTLY attempt to pull the webbing back out of the retractor. In many vehicles you will find that it is locked and you cannot pull it back out. In addition, you may find that you can hear a clicking noise as the webbing is allowed to wind back up in the retractor. If this is what you find, then you have a "switchable" retractor and this "locked" mode is often what needs to be used to properly secure your child restraint in your vehicle.

*\*Please note that some child seat manufactures require that you use a locking mechanism built into their seat. Always read the instructions for your Child Safety Seat.*

*\*\* Some older vehicles do not have either of these locking mechanisms and require the use of a "locking clip" which either came with your seat or can be purchased from the manufacturer. Please see your instructions or the "how to videos" on our website (<https://saferide4kids.com/blog/category/how-to-videos/>) for more instructions on how to use this clip.*



## 2 Misuse: Seat belt routed through the wrong belt path.

**Solution:** Know your seat. There are different locations for the belt paths in the 4 main types of child restraints.

**Infant only:** This seat is only used rear facing. It normally has only one belt path through the base. The carrier portion may have another path for use without the base. (Read the manual for proper use.)

**Convertible:** This seat "Converts" from Rear facing to Forward Facing for children who have reached the maximum rear-facing weight or height limit for that seat. This seat will have a rear facing belt path AND a forward facing belt path.

*Note: Best practice is to keep all children rear facing as long as possible within the limits of the seat. They are safer rear facing vs. forward facing. Many children will be between two and three years old before they reach the upper rear facing weight limit on many seats. The American Academy of Pediatrics (AAP) recommends at least two years old before they are turned forward.*

**Combination Seat:** This seat is a "Combination" of two types of forward facing seats. It has two belt paths. One belt path is used when it is uses the internal five point harness and once the child reaches the upper weight/height limit for the harness the seat becomes a "belt positioning booster." It then uses the vehicles seat belt (3 point) to restrain the child (belt path #2).

**Belt Positioning:** This restraint has only one belt path, positioning the vehicle's seat belt over the child. Two methods:

- Lift the child up to simulate "adult" anatomy which often uses a thicker plastic seat and changes the crash dynamics by lifting the child and changing their center of mass.
- Position the seat belt properly on the child by using the RideSafer Travel Vest. ([saferide4kids.com](https://saferide4kids.com)) This device adds a layer of convenience and transportability unequalled in the car seat world today AND it keeps the child's center of mass lower which beneficially changes the energy experienced by the child in the event of a crash. (*This is the primary purpose of having child restraints right? To have the best possible outcome in the event of a crash?*)

**All-in-One:** This device incorporates a rear facing, forward facing with a harness and a booster seat in one device. It will have a rear-facing belt path, a forward-facing path and the booster seat belt path.



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## 3 Misuse: Seat is installed "Too Loose" in the vehicle.

**Solution:** Tighten the belt or LATCH strap until the seat moves less than 1 inch side to side at the belt path. (There is such a thing as "too tight" also; you do want that little bit of movement.)

**Lap and Shoulder Belt:** Once you have determined how your seat belt locks by one of the three methods above (latch plate, retractor or locking clip) it is important to properly and snugly secure the child restraint in the vehicle. Follow the following steps:

1. Route the vehicle's seat belt through the appropriate "belt path" in the child restraint according to the manufacturers instructions. See #2 for the different types.
2. Buckle the latch plate into the vehicles belt buckle.
3. Activate the "switched" mode if you have a switchable retractor; see separate video for locking clip or disregard this step if you have a locking latch plate.
4. Grab the shoulder portion of the seat belt on the retractor side of the car seat and pull gently to tighten the lap portion onto your child restraint. As you pull on the seat belt put downward pressure with your other hand on sides of the car seat alternating from side to side as you pull on the shoulder belt.
5. Feed the excess webbing into the retractor.
6. If your vehicle and your child restraint have a Top Tether Anchor then secure and tighten the Top Tether.



**Lap only belt:** (the most common type without a retractor, like an airplane seat belt)

1. Route the vehicle's seat belt through the appropriate "belt path" in the child restraint according to the manufacturers instructions. See #2 for the different types.
2. Buckle the latch plate into the vehicles belt buckle
3. Pull the "tightening strap" portion gently to tighten the lap belt onto your child restraint. As you pull on the "tightening strap" portion put downward pressure with your other hand on the sides of the car seat alternating from side to side as you pull.

*Helpful Hint: Sometimes you are able to tighten it much better by feeding the "tightening strap" portion back through the belt path and out the other side or into the seating area in order to change the angle that you are pulling the strap. See video at [saferide4kids.com/how-to-videos](http://saferide4kids.com/how-to-videos).*

## 4 Misuse: Top tether not used or connecting it to a cargo hook or other non-anchor point.

**Solution:** While not technically not a misuse the Top Tether Strap does decrease the forward movement of your child during a crash by up to 8 inches. Make sure to attach to vehicle's tether anchor point.

You must refer to the owners manuals for your vehicle and your child safety seat to ensure you are using this correctly. You must use an approved (crash tested) anchor point in your vehicle. It is possible that your vehicle has a mounting point for the hardware but you will need to order the kit from the car dealer. Many will not charge you for this or for installation.

## 5 Misuse: Lower Anchors and Tethers for Children (LATCH) not being used correctly.

**Solution:** Carefully read child restraint instructions and vehicle manual for LATCH locations.

LATCH is a system installed in passenger cars 2003 and newer that consists of special hardware installed in your vehicle and an additional straps on your child restraint. The intent was to decrease the misuse associated with using the vehicles seat belt (as noted above).

The Lower Anchor component is intended to be used **INSTEAD** of the vehicles seat belt while the Top Tether is intended to be used with the Lower Anchor Strap (must) or with the vehicles seat belt (may/should).

The confusion/misuse arises when well meaning caregivers do not consult or understand the vehicle's instructions on the proper use and location of the lower anchors. Lower Anchors are, for the most part, manufactured as a unit. What I mean is that the left and right u-shaped anchors are built a specific distance apart connected by a rigid metal



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bar. This assembly is then installed in a specific seating position, let's say — as it is typical — the two outboard seats. Here is how this misuse commonly happens:

- The well meaning caregiver has heard that the safest spot for a child to ride is in the rear middle seating position.
- Without consulting the owners manual for their vehicle they would not know that only the two outboard (window) seating positions have the Lower Anchors installed.
- Intending to use the "most up to date technology" and all the parts that came with their new seat, they connect the LATCH strap to the two inside connection points of the two separate Lower Anchors in the two outboard seating positions. This creates a misuse because unless the vehicle manufacturer explicitly **ALLOWS** for this application, the Lower Anchors can only be used in the two outboard seating positions. In other words it is most often a misuse to use 1/2 of each of the outboard Lower Anchors. It just has not been crash tested that way.

Another common misuse is to use BOTH the vehicles seat belt AND the Lower Anchor Strap. There is a certain degree of stretch built into a seat belt webbing which helps to slow the occupant down over a few more fractions of a second decreasing the "injury criteria" experienced in the crash. If you double the webbing, you have changed the way that the crash energy is dissipated and it is now outside of the design and crash testing specifications. Use **EITHER** Lower Anchors **OR** the vehicles seat belt.

Top Tethers are recommended to be used any time the vehicle and the child seat have the required hardware.

## 6

**Misuse: Harness straps not properly positioned for child.**

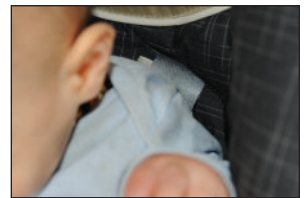
**Solution:** Straps should be positioned at or below the child's shoulder for rear-facing seats and at or above for forward-facing seats.

For rear-facing child safety seats, if you are looking at the child sitting in the seat the straps should be going through the safety seat at the slot at or below the child's shoulder. In other words, you should not be able to see the strap coming out of the seat above the shoulder, it should be hidden beneath the child's shoulders. In a forward crash — the most common type of crash — the first motion is going to be the top of the child seat rotating down toward vehicle's floor. At some point, if there is enough crash energy, the child's body is going to try to slide toward the top of the child safety seat which is now approaching horizontal. You want the harness straps to be cradling or at least very close to the child's shoulder so that they do not slide "up" into and stop suddenly or even go through the neck opening when they finally hit the misplaced straps.

This harness position changes when they change to forward facing. With a child in a forward-facing child restraint the harness straps should go through the safety seat at or above the child's shoulder. If you think about how our seat belt is positioned on us it anchors above our shoulder so that we lean into it in a forward impact. Forward-facing children should have their harness positioned similarly, at or above their shoulder.

*NOTE: It is "best Practice" to keep your child rear facing as long as possible up to the upper REAR facing weight limit for your Child Safety Seat which for many kids is between 2 and three years old. According to the American Academy of Pediatrics it is at a MINIMUM of 2 years old.*

In all cases, according to your child seat manufactures instructions, the clip which holds the straps together should be positioned at about arm pit level on your child. This clip keeps the harness properly positioned on the shoulder and prevents the straps from separating ensuring your child is not ejected during a violent crash



## 7

**Misuse: Harness straps are not properly routed through the shell of the safety seat.**

**Solution:** Reroute the straps, making sure to keep straps free from twists.

Sometimes the seat gets taken apart for cleaning and the straps do not

get re-routed correctly. You can always find the correct assembly instructions in your owner's manual. If you do not have the owner's manual, you should be able to locate the manufacturer name, model number and date of manufacture on a sticker on the exterior of the shell (plastic frame) of your child restraint. You can call the manufacturer or find them on the internet and often download or request a new manual. You can also go to [Saferide4kids.com/technicians](http://Saferide4kids.com/technicians) to find a local technician who can help you.



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## 8 Misuse: Child Safety Seat at incorrect incline angle.

**Solution:** Check the level indicator and correct accordingly.

**Rear Facing Only:** All rear-facing child safety seats have some sort of indicator to identify the correct angle for the seat to be installed. Sometimes this is a bubble level, sometimes it is a line on the label, or sometimes some other form of indicator. If this indicator is a bubble or a moving indicator like a hanging needle or swinging disk, is important to make sure that you are parked on level ground. If it is a line on the child safety seat then make sure that this line is parallel to the bottom of your car.

Most infant carrier type seats have some sort of adjustment mechanism to raise or lower the part of the base which sits nearest the vehicle's seat back. This adjustment "foot" is meant to accommodate different types and angles of vehicle seats. Rarely it may be necessary to add a rolled towel or 1 — or up to 3 — short sections of a "pool noodle" to achieve the correct angle. This is much more common when positioning a convertible safety seat.

**Convertible Safety Seat:** Safety seats will also have some sort of indication as to the correct rear facing angle. Again this may be a bubble or simply a line on the seat or the label. It is common to have to add a rolled towel or 1 — or up to 3 — short sections of a "pool noodle" to achieve a snug installation at the correct angle. Convertible child safety seats will have a movable mechanism to change the angle when the seat is converted from rear-facing to forward-facing installation. Refer to your seat manufacturers instructions to learn about this feature on your seat. It is a common misuse for this mechanism to be left in the rear-facing position when the seat is converted to forward-facing use.



## 9 Misuse: Harness straps too loose.

**Solution:** Tighten the harness straps to ensure the child is "as snug as a hug."

In order to ensure that your child is held in the child safety seats during a crash it is important that the harness straps be snug on the child. What this means is that you should **not** be able to pinch the webbing between your fingers. If you can gather and pinch the webbing along the length of the strap then the harness straps is too loose and need to be tightened.

*Note: For those who live in cold climates, you do not want to add heavy coats inside the harness system of the child safety seat. The recommendation is no more than a sweater or sweatshirt inside the harness system. You may have a blanket or a coat on top of the harness once you have the child securely positioned in the child safety seat. During a crash the extra padding would compress allowing the harness straps to become loose putting your child at risk. Also, it will be easier for your child to be comfortable once the internal temperature of the car gets warm.*

Remember to position the harness retainer clip at armpit level for all children.



## 10 Misuse: Child not properly restrained after outgrowing forward-facing child restraint.

**Solution:** Get familiar with not only the laws for your state but also best practice recommendations for the safety of your child's age, size and weight.

Seat belts in automobiles are, by design, intended for adults. Historically, child safety seats only accommodated children up to about 4 years and 40 pounds. These upper limits have been increasing over the last several years. It has been recognized in the national injury and fatality statistics that children between the ages of about 4 years and approximately 8 to 9 years old, represented a significant number of the severely or fatally injured children in the United States. It has also come to light that a significant number of the children in this age and size range are either unrestrained or improperly restrained. Booster seats have traditionally been the favored solution. A booster seat, by design, attempts to position the child's body similar to that of an adult occupant by lifting the child up to simulate "adult" anatomy.

The 2 goals of a belt positioning restraint, commonly known as a booster seat, are:

- Get the lap portion of the vehicles seat belt to fit low on the hips/on the upper thigh so during a crash the seat belt does not go above the hips to the abdomen area which can cause internal injuries.
- Position the shoulder portion of the seat belt off the child's neck area, not because of an injury risk but because of the common tendency of children to solve the discomfort of the shoulder belt rubbing



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## OTHER COMMON ERRORS:

- "Bracing" a car seat against the front driver or passenger seat, this is not allowed by most car seats and vehicles. Check your manuals to be sure.
- Upside down LATCH hooks
- Using the LATCH system beyond the stated weight limit.
- Incorrectly routing the seat belt on a booster seat. Seat belt need to go under the arm rests.

on their neck by putting the shoulder belt behind them or under their arm. Either of these actions DOES put the child at risk of severe injury because they lose the protection of having the upper body restraint offered by the shoulder belt. They experience the exact same injury as if they had a lap only belt which is called "seat belt syndrome" and quite graphically, the child's abdominal organs get squeezed between the seat belt and their own spinal column, and if there is enough crash energy, actually cause the spinal column to break, paralyzing the child from the waist down.

Booster seats most commonly use a thick hard plastic seat to elevate the child's body. This accomplishes the two goals but it also changes the crash dynamics by lifting the child and changing their center of mass. They also can still put the shoulder belt behind them or under their arm if they are irritated by the shoulder belt, predisposing them to "Seat Belt Syndrome" should a crash occur. You CAN NOT use a booster seat with a lap only belt.

There is a new revolutionary product on the market. (OK, it was invented in 2004 but you likely have never heard about it.) It is the RideSafer Travel Vest.

## What is the RideSafer Travel Vest?

The RideSafer Travel Vest is unlike virtually every other "car seat" on the market. It is a child restraint system that your child wears! It is easy, safe, convenient *and* legal for children 3 years old and up. Here are some highlights:

- Crash tested and meets or exceeds all Federal Motor Vehicle Safety Standards (FMVSS 213).
- Peace of mind and confidence that your child is always properly protected in the car, they have their safety device hanging on the hook with their coat.
- The RideSafer Travel Vest positions the vehicle's seat belt properly on the child with clips that actually hold the seat belt in place both at the lap/thigh area AND at the shoulder area eliminating discomfort and preventing the child from unknowingly putting themselves at risk by misplacing the shoulder belt (Seat Belt Syndrome).
- You CAN use the RideSafer in a seating position with a lap-only belt and a tether strap connected to the vehicle's Tether Anchor Point.
- The RideSafer Travel Vest is very convenient to transfer car to car, in fact, your child wears it and no matter who's vehicle they are riding in, they are protected.
- It is simple to have three properly restrained children in ONE row! This alone could save you thousands by not having to buy a new car for that third child (or friend)!
- Traveling with the RideSafer Travel Vest could not be easier! Just pack it with your child's clothes and they have all the safety they need at the destination.



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**Get yours today at [SafeRide4Kids.com/shop](http://SafeRide4Kids.com/shop)**

If you have specific Child Safety Seat questions, please feel free to reach out to our team. Collectively we have more than 20 years of Certified Child Passenger Safety (CPS) Technician experience (including 15 years of CPS instructor experience available to answer your questions).

*\* Safe Ride 4 Kids is an independent distributor of the RideSafer Travel Vest manufactured by Safe Traffic Systems LLC.*