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Introduction

Many families rely on cars for getting out and about, so it is vital to find safe, effective ways of transporting children with additional needs.

The law requires that all children travelling in the front or rear seat of any car, van or goods vehicles must use the correct child car seat until they reach 135cm in height or 12 years old (whichever they reach first). After this, they must use the adult seatbelt.

Children with additional needs must use child car seats and seatbelts in the same way as children who do not have additional needs. If there is a medical reason that a child cannot use a child car seat or seatbelt, a doctor can decide whether to issue an exemption on medical grounds.

It is very important to ensure that your child travels in an appropriate child car seat which:

- Conforms to the United Nations Standard, ECE Regulation 44.04 or to the new i-Size regulation, R129.
 Look for the 'E' mark orange label on the seat.
- Is suitable for your child's weight (R44 seats) and height (R129/i-Size seats)
- Is correctly fitted according to the manufacturer's instructions.

In some cases, a specially adapted child car seat may be necessary for a child with additional needs. It can be a challenge to find the right fit based on the various physical and behavioural challenges the child may experience.

However, parents and carers should never modify the child's seat, without seeking expert advice. This is because it is difficult to be sure how it will perform if it is involved in the event of a collision. Modifying a seat without expert advice could make it more difficult to take the child out of the seat in an emergency or lead to unintended consequences such as the seat shattering if involved in a collision.

Instead, parents and carers are advised to speak to the manufacturer of the seat to discuss whether there are any accessories that the manufacturer produces that have been tested for use with the seat. Parents and carers can also contact companies that specialise in the carriage of children with additional needs, as they may be aware of accessories that can be used with the car seat without compromising the safety of the child.







Challenges

Many children with additional needs present some disruptive behaviours as part of their disability. One of the most common behaviours presented is a tendency for the child to unbuckle their seatbelt or harness on car journeys.

For example, children with Autism Spectrum Disorder (ASD) may demonstrate impaired communication skills that could limit their understanding of the importance of remaining in their seat, with their seatbelt or harness fastened throughout the journey. Children who have ASD may also have sensory processing disorder, which can affect their ability to tolerate a seatbelt or harness. A child with additional needs may not respond to requests to wear their seatbelt or harness, which could result in them being unrestrained in the vehicle, causing risk of injury to themselves and other occupants.

Children may also present other disruptive behaviours, such as kicking the back of vehicle seats, attacking the driver and other passengers, opening vehicle doors, head banging, hitting themselves, holding their breath and rocking back and forth so forcefully that their seatbelt or harness leaves marks on their body. Therefore, they may require a special harness, seat or vest to keep them safe.

Children with additional needs may also experience physical challenges, which mean that a conventional child car seat may not be appropriate. For example, a child may have poor motor control and need a seat that will help them to sit in a proper position and remain in place. They may therefore require a seat with more support¹.



¹ SafeRide4Kids (2017) 'Special needs car seat' <u>https://saferide4kids.com/blog/special-needs-car-seat/</u>





Solutions

There are a number of different solutions available based on a child's needs. These include specially designed child car seats and accessories such as harnesses and safety vests.

There are also car seat clinic assessments available for children with physical disabilities or challenging behaviours from the Regional Driving Assessment Centre². Behaviour, strength and dexterity may change over time, meaning that these assessments may need to be repeated as the child gets older.

All products used in the transportation of children and adults with additional needs should be subject to regular, written risk assessments.

Child car seats

Some children may need a specially adapted seat that can meet their behavioural and physical needs. However, many specially adapted child car seats are not available in major retail stores.

Specially adapted seats will have different features to conventional child car seats, which may include a fivepoint harness, even for older children, additional head and neck support, pommels and foot supports. Some may also have a seat and backrest unit that can be tilted backwards, which may be a helpful feature if the child has difficulty supporting their head. Some models are fitted onto swivel bases, which can make transferring the child in and out of the vehicle easier.

Below are some examples of child car seats that may be appropriate for children with additional needs. Please note that inclusion in this guide does not imply RoSPA endorsement or recommendation of the product.



² Regional Driving Assessment Centre (undated) https://www.rdac.co.uk/services/child-seats/





In Car Safety Centre Thor

The ICSC Thor offers postural support and recline options for children with additional needs. This seat is appropriate for children weighing from 15-36kg.

For more information: <u>https://incarsafetycentre.co.uk/thor</u>

Cybex

A number of seats developed by Cybex are now available with 'SensorSafe Safety Technology'. Attached to the harness system of the car seat, the SensorSafe clip connects to the parent/carer's smartphone and provides alerts to help prevent dangerous situations. The clip prevents the child slipping out of the harness. In the event that the child does manage to open the clip on their harness, the parent/carer will instantly be alerted by push notification on their smartphone. The technology also alerts parents or carers when the temperature in the vehicle is too hot or cold for the child, if the child is left unattended in the vehicle and if the child has been in their seat for too long.

For more information: https://cybex-online.com/en-gb/sensorsafe





Impact Shields

There are some seats that do not have a 5-point safety harness but instead they have a shield on the front of the seat, which acts as a shock absorber and holds the child firmly in place. This is a removable block that sits in front of the child and is secured with the vehicle seatbelt. As impact shield safety systems have snug padding that reduces movement of the head and neck and side impact protection it may offer increased security and be an alternative for children who can't tolerate the 5 point harness against their body.

Buckle guards and anti-escape systems

RoSPA is aware of buckle guards for sale, which are designed to stop the child from releasing their seatbelt during journeys. There are a number of kinds of buckle guards available. Some work in the same way as a pill or medicine bottle, in that in order to open the guard to release the buckle, the top must be pushed and turned at the same time. However, RoSPA has recently received notification from the Department for Transport (DfT) that these devices are not legal for use, as they have been ruled as in contravention with *Road Vehicles (Construction and Use) Regulations 1986.* Anti-escape systems are designed to stop the child freeing their arms from their five-point harness. If an anti-escape system is not effective, a more restrictive method may be required to keep the child in the seat.

Below are some examples of anti-escape systems. Please note that inclusion in this guide does not imply RoSPA endorsement or recommendation of the product.

5 Point Plus Anti Escape System

The 5 Point Plus Anti Escape System is designed to stop the child wriggling free from their harness in forward facing child car seats with a five point harness. It fills the gap at the side where the child would normally squeeze their hand through. It is available in two sizes and is appropriate for children aged from 15 months up to four years.

For more information: <u>https://5pointplus.com/</u>

Houdini Stop Chest Strap

The Houdini Stop chest strap is designed to ensure that the child stays safely and correctly positioned in their harness. It works by clipping to each shoulder strap of the harness to keep it in position and to prevent the child from being able to separate the shoulder straps in order to escape. It cannot be easily moved up and down by the child.

For more information: https://www.crelling.com/houdinistop.html#ad-image-0

Strapstop



Strapstop is a strap with buckles that attaches to the shoulder straps of the child's car seats and prevents them from freeing their arms during journeys. It can also be used in pushchairs and highchairs. This product has been tested to R44 standards.

If you are planning to use any of these products, please speak to your vehicle manufacturer. In using an antiescape system, there is a risk that in the event of a collision, those assisting may not know how to release the harness. Therefore, it is recommended that a seatbelt cutter is always carried in the vehicle and a sticker is placed on the vehicle window to inform first aiders of what action to take.

Harnesses

Some organisations sell harnesses that are compatible with child car seats. These harnesses are designed for disabled passengers that present challenging behaviours while travelling, such as trying to undo their child restraint. There are a number of harnesses that can be used in conjunction with the vehicle's seatbelt, including those fitted with a steel safety buckle that are more difficult to open and harnesses that are more physically restrictive, which fasten at the rear of the vehicle seat.

The vehicle seatbelt must be worn over these harnesses, unless the passenger is exempt for medical reasons.

Before purchasing a harness, always speak to your vehicle and child car seat manufacturer to ensure compatibility.

Below are some examples of harnesses. Please note that inclusion in this guide does not imply RoSPA endorsement or recommendation of the product.

Crelling Model 28

This harness is designed to offer postural support and some degree of restraint. The model 28 five point harness comes in two varieties: one with a red press release button on the waist belt, which is easier to release and one with a steel safety buckle, which requires a three-in-one action to undo. If the child has or is likely to develop an ability to release buckles, it would be advisable to choose the steel safety buckle version. The harness is produced in one size and is appropriate for children aged around four years up to adulthood.

This harness can be used in conjunction with some high-backed booster seats and booster cushions.

For more information on press release: <u>https://www.crelling.com/model-28-press2.html#ad-image-0</u> For more information on steel buckle: <u>https://www.crelling.com/model-28-steel.html#ad-image-0</u>

Crelling Model 31

The model 31 chest padded harness is the most restrictive front fastening harness produced by Crelling. It comes in two sizes: a smaller size for children aged 3 to 12 and a larger size for passengers over 12 years. This harness is ideal for those who attempt to escape from their seat.

This harness may have a calming effect on passengers who need to feel a restraining pressure to feel safe, but may be inappropriate for passengers who are hypersensitive to touch.





This harness can be used in conjunction with a booster cushion. It is not appropriate for use with a high backed booster seat.

For more information: https://www.crelling.com/model-31.html#ad-image-0

Unisafety Easy Travel Magnet Harness

This magnetic harness is designed to offer maximum safety, as it is virtually impossible for the users to open. A magnetic key releases the buttons when required by a parent or carer. It is worn like a waistcoat, with a padded crotch strap to prevent the child sliding out of the bottom. It is fitted by using one or two horizontal straps, which fasten at the rear of the seat. This harness can be used by children aged two and a half upwards.

For more information: http://www.windmillspecialneeds.co.uk/html/vehicle_harnesses.html

Magnetic harness

This harness is secured to the vehicle seat and is fastened in front of the child. The magnetic buttons are pushed shut to secure the harness and it can then be released using magnetic keys. This harness is appropriate for children up to mid-teen age. It can be opened in an emergency by pressing the buckle at the rear of the seat.

This harness is suitable to be used in a car or on a bus.

For more information: https://incarsafetycentre.co.uk/magnetic-harness

If you are planning to use any of these products, please speak to your vehicle manufacturer. In using a harness like those described above, there is a risk that in the event of a collision, those assisting may not know how to release the harness or guards. Therefore, it is recommended that a seatbelt cutter is always carried in the vehicle and a sticker is placed on the vehicle window to inform first aiders of what action to take.

Safety vests

For some children with additional needs, a safety vest is a suitable option.

Bestvest

The Bestvest may be an appropriate solution for children who sit in a booster seat but tend to remove the diagonal part of their three-point seatbelt to free their arms. The vest is a positioning device, which is designed to secure the seatbelt on the shoulder at all times, to maintain a comfortable and safe position for the child. It is suitable for children aged five upwards.

For more information:

https://ukshop.braunability.eu/wheelchair-occupant-restraints/wheelchair-occupant-restraints-bestvest/bestvest-291.html



What should I be looking for?

When purchasing a child car seat for a child with additional needs it is advisable to look for seats with the following features:

- Recline options: Children who have low muscle tone, breathing difficulties, or trouble sitting up may be safest and most comfortable in a seat with a deep recline. Look for a seat with several recline options, so you can find the best one for your child. Look for seats with two or more recline options, or those that can lie flat or nearly flat in the car.
- High rear-facing weight and height limits: Most conventional car seats recline more fully when rearfacing. There are now a number of rear-facing seats that can accommodate children up to the age of six.
- High harness weight limits: If your child has difficulty sitting up, head/neck control issues, or behavioral issues, a harness can keep them in place safely.
- Seats with lower or shallow sides in the sitting area: If you have a child with a cast, a seat with lower sides allows for better leg positioning. A seat with deep armrests may make positioning more difficult.
- Extra padding and positioning options: If you have a child with missing limbs or other physical differences, or a child who's smaller than average, some seats have harness or crotch strap adjustment features that can make things fit better.
- A high back with deeper sides in the shoulder area: If your child has trunk control issues, the deep sides can make them more comfortable or help keep them in place³.



³ BabyCenter (undated) 'The 10 best mainstream car seats for special needs kids' <u>https://www.babycenter.com/609_the-10-best-mainstream-car-seats-for-special-needs-kids_20003772.bc</u>





Transporting medical equipment

Some children with additional needs may have medical equipment that they need at all times, and this equipment must be transported safely.

When a child with additional needs is travelling, pieces of medical equipment such as walkers, crutches, oxygen tanks and monitors should be secured on the floor; underneath a vehicle seat or wheelchair; or to the bus seat, bus floor, or bus wall below the window line. This is so that they do not become a projectile in the event of a collision and strike the driver or passengers. Electrical equipment for use during transportation should have battery power for twice the expected duration of the journey⁴.



⁴ American Academy of Paediatrics (1999) 'Transporting Children With Special Health Care Needs', *Paediatrics*, 104(4): 988-992.





Funding a child car seat or accessory

Child car seats and/or accessories such as harnesses suitable for children with additional needs can be quite costly, because they are often specially adapted for the child's needs. However, parents may be entitled to access funding to fully or partially cover the cost of this equipment.

In the first instance, it would be worth contacting the child's local authority or healthcare practitioner to find out if they may qualify for statutory funding. If statutory funding is not available, there are a number of charities that may be able to offer financial support. Some of these charities include:

Children Today: https://www.childrentoday.org.uk

Elifar Foundation: <u>https://www.elifarfoundation.org.uk</u>

Family Fund: https://www.familyfund.org.uk/

Joseph Patrick Fund Grants (for those with muscular dystrophy): <u>https://www.musculardystrophyuk.org/get-the-right-care-and-support/equipment-grants/jpt-grants/</u>

Lifeline 4 Kids: <u>http://www.lifeline4kids.org/</u>

Newlife: https://newlifecharity.co.uk/index.php

Variety: https://www.variety.org.uk/

If your child has a specific condition, such as Hip Dysplasia, you may be able to access a car seat through a car seat loan scheme, until you are able to access a specialised child car seat. Examples of these services includes the <u>Happy Hips service</u> from Maxi Cosi and the <u>Car Seats Loan Scheme</u> from In Car Safety Centre.





Our top tips

- The most important thing to remember is to be consistent, always insist that your child is secure in their child car seat, with the harness fastened. Do not give in by letting your child travel without being safe and secure. If in any doubt don't start your car engine until your child is secure in their seat.
- Explain to your child why it's important to wear a harness and how it keeps them safe. You can even make a 'doing up the harness or belt into a song' to try and make it as fun as possible.
- Make sure you take off any puffy jackets, snowsuits or thick tops, as these types of clothing can cause gaps between the harness and your little one, making it easier to wriggle out of.
- In some cases, it would be advisable to take some toys or games for them to play with in the car.
 However, if the child has a tendency to display disruptive behaviour, ensure that there are no objects in the car that could be thrown at the driver or any other passengers.
- If there is sufficient space, allow a gap large enough between the front and rear seats to prevent any rear seat passenger kicking of the front seat.
- Try not to get distracted by your child's activities in the back seat. If your child has wriggled out, pull over as soon as safely possible and do up the harness again. If your child is using a three-point seatbelt, in many modern vehicles, a warning or audible tone will alert the drivers that the seatbelt has been unbuckled.
- If your child has hyperactivity or autism, it is still often the safest option for the child to travel in the rear of the vehicle. That may mean that an adult has to travel in the rear of the car to monitor your child's behaviour.
- As would be advised when transporting any child, keep child locks on at all times, to ensure that the child is unable to open the door when the vehicle is moving.
- Never alter or modify a seat or harness. You could compromise your child's safety.



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RoSPA Head Office

28 Calthorpe Road Birmingham B15 1RP t +44 (0)121 248 2000

RoSPA Scotland

43 Discovery Terrace Livingstone House Heriot-Watt University Research Park Edinburgh EH14 4AP

t +44 (0)131 449 9378/79

RoSPA Wales

2nd Floor 2 Cwrt-y-Parc Parc Ty Glas Cardiff Business Park Llanishen Cardiff CF14 5GH

t +44 (0)2920 250600

General Enquiries

+44 (0)121 248 2000
 +44 (0)121 248 2001
 help@rospa.com
 twitter.com/rospa
 facebook.com/rospa
 inkedin.com/rospa

www.rospa.com

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