

# Modified Australian standard child restraints — additional padding

Model Policy



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**Modified Australian standard child restraints — additional padding**  
Insert Model Policy

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This model policy has been developed by Mobility and Accessibility for Children in Australia Ltd (MACA).

MACA is a registered charity dedicated to advancing the rights of children with disabilities and medical conditions to safe and equitable transport. For more information, visit [macahub.org](https://macahub.org)

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#### **Legal disclaimer**

MACA believes this publication to be correct at the time of publishing and does not accept responsibility for any consequences arising from the use of information herein. Users should rely on their own professional skill and judgement in applying this model policy in their work.

This model policy is not intended to promote modification of Australian standard child restraint systems. MACA acknowledges the limited evidence-base and access to appropriate child restraint systems for many children with disabilities and medical conditions in our community. As the evidence-base continues to advance, MACA will review and update this model policy.

Where modification of Australian standard child restraints is required, organisations should have policies, procedures, and insurance in place to support this practice. This policy is designed to assist organisations in meeting their professional and legal obligations.

MACA developed this model policy with funding from the Australian Government Department of Social Services.

# Modified Australian standard child restraints — additional padding

## Policy guidance for organisations

### 1. Introduction

Safe and comfortable car travel is important for all children and young people.

While many children with disabilities and medical conditions can travel safely and comfortably in Australian standard child restraints, some children might need extra support from products specifically designed or modified for children with disabilities and medical conditions. For example, an Australian standard child restraint that has been modified to meet a child's needs when travelling in plaster (e.g., hip spica cast).

Modifying Australian standard child restraints is when items are used that are not supplied by, or included in, the child restraint manufacturer's instructions. For example:

- additional padding
- postural supports
- extended crotch straps
- cross-chest straps
- buckle covers.

Modifying an Australian standard child restraint means it no longer complies with the Australian/New Zealand Standard 1754:2013 *Child restraint systems for use in motor vehicles* and may not perform as designed in the event of a crash (AS/NZS 1754).<sup>[1]</sup>

This risk is recognized in AS/NZS 1754, which requires child restraints to include a general warning in the instruction booklet: *do not alter or modify this restraint*.<sup>[1]</sup>

In contrast, the Australian/New Zealand Standard 4370:2013 *Restraint of children with disabilities, or medical conditions, in motor vehicles* provides guidance for modifying Australian standard child restraints.<sup>[2]</sup> However, this standard has suffered from an historical lack of research and has not kept pace with advancements in disability rights and child restraint research relating to the transport of children with disabilities and medical conditions.

A desktop review undertaken for the establishment of MACA's Australian Safety Assessment Program (AuSAP), and findings from MACA's national survey identified an urgent need for further research to understand the safety implications associated with modification practice.<sup>[3]</sup> In response, Neuroscience Research Australia (NeuRA) offered a PhD scholarship to investigate modification practice, and to advance the evidence-base.

This model policy translates new research findings about the use of additional padding when modifying Australian standard child restraints, to assist organisations to develop evidence-informed policies, processes and practices.

## 2. Purpose

This model aims to:

- provide knowledge and guidance for organisations involved in modifying Australian standard child restraints
- provide guidance on the road law requirements relating to the legal use of modified Australian standard child restraints in motor vehicles
- support the rights of children with disabilities and medical conditions to safe and equitable motor vehicle transport.

## 3. Values

Values are unique to each organisation. The following are provided as examples only.

[insert name of organisation] is committed to:

- applying family-centred practice
- evidence-based approaches to supporting the motor vehicle transport needs of children with disabilities and medical conditions
- advancing the rights of children with disabilities and medical conditions to safe and equitable motor vehicle transport
- the Safe System approach to road safety (refer to section 7, Definitions).

[insert additional values relevant to the organisation]

## 4. Scope

This model policy sets out considerations for organisations with staff involved in modifying Australian standard child restraints.

The research informing this model policy reported the following limitations: <sup>[4]</sup>

- Crash testing was conducted with one type of forward facing Australian standard child restraint (Britax Maxi-Guard Pro, Type G, AS/NZS 1754:2013)
- Crash testing was undertaken with a Q1 dummy (equivalent to a one-year-old)
- Only frontal impact crash tests were undertaken.

Therefore, whilst the research significantly advances knowledge, more research is needed. <sup>[4]</sup>



## 5. Background

MACA's Australian Safety Assessment Program (AuSAP) establishment activity included a desktop review (2020) of the restraint types and products used by Australian children with disabilities and medical conditions when travelling in motor vehicles. <sup>[6]</sup> The restraint types investigated included:

- Australian standard child restraints
- Modified Australian standard child restraints
- Special purpose child restraints
- Specialty harnesses/vests

This review identified significant gaps in research and knowledge relating to modified Australian standard child restraints and specialty harnesses/vests, resulting in the AuSAP Expert Technical Committee recommending the need for further research, prior to consideration for inclusion in AuSAP.

Further, MACA's national evaluation survey data (2020–21) showed a high prevalence of modification practice, with allied health professionals reporting prescribing, for example:

- buckle covers (57%)
- cross chest straps (41%)
- use of towels, foam, extra padding (40%)
- head support (e.g., soft collar) (37%) <sup>[3]</sup>.

In response to the gaps in research, NeuRA offered a PhD scholarship to investigate modification practice. This research commenced with two national online surveys (2022) for parents and health professionals. Forty parents and 46 health professionals completed the survey in mid-2022. This is a small sample which included a high representation of health professionals working in hospital settings (39%).

The survey findings revealed that additional padding (specifically towels and nappies) for postural support was the most frequently used modification for both parents (17%) and health professionals (72%) <sup>[6]</sup>.

### Crash testing

Based on the survey findings, NeuRA undertook crash testing to investigate the effect of the use of additional padding on crash protection for child occupants in Australian standard forward facing child restraints.

Forty frontal crash tests were conducted at NeuRA's Transurban Road Safety Centre. Three padding materials, as reported being used in the survey findings, were tested: cloth nappies/toweling; soft foam from general retailers and expanded polystyrene (EPS) foam. These materials were positioned in various locations to support the child's head, trunk, or legs within the restraint, based on reported locations from the NeuRA survey.

The study found that some forms of padding used for postural support for children with disabilities can significantly impact measures that increase injury risk <sup>[4]</sup>.

In response to these research findings, and other advancements in knowledge and research, Appendix 1 outlines a *Practice Guide: Modified Australian standard child restraints — additional padding* to assist organisations in developing policies and processes where modification practice is required.



## 6. Standards and Legislation

Relevant standards and legislation include, but are not limited to:

### 6.1. Australian Standards

#### 6.1.1. AS/NZS 4370:2013 Restraint of children with disabilities, or medical conditions, in motor vehicles <sup>[2]</sup>

This standard (current version 2013) provides guidance for allied health professionals when assessing and prescribing for children's (under 16 years) motor vehicle transport needs. This standard **does not** cover the design, construction or performance requirements of the specialty restraint types used by children with disabilities and medical conditions.

AS/NZS 4370 is a voluntary standard, however several jurisdictions (ACT, Queensland, WA and NT) either include AS/NZS 4370 in their legislation, or other legal instruments.

Since this standard was published in 2013, there have been significant advancements impacting on the ongoing relevance and need for this standard. This includes, for example, the introduction of the National Disability Insurance Scheme (2013) improving access to supports and products, the establishment of MACA and AuSAP, MACA's specialist training courses, new published research, and developments in Australian standards.

#### 6.1.2. AS 8005:2020 Accessories for child restraints for use in motor vehicles <sup>[7]</sup>

The key principle of this standard (current version 2020) is that accessories (e.g., buckle covers, cross chest straps) do not compromise conformance of AS/NZS 1754 compliant child restraints or increase the risk of injury for the child.

The standard specifies requirements for the design, construction, and performance of, and test methods for, accessories and add-on devices to be used with child restraints, and accessories that are to be used to improve the comfort or fit of seatbelts when used with child restraints.

The AS 8005 is a voluntary standard; however, the Australian Capital Territory includes AS/NZS 8005 in its legislation (the impact of this is unclear).

There are currently no accessory buckle covers or cross chest straps certified to AS 8005.

Refer to MACA's Buckle Cover Model Policy for guidance relating to assessing and prescribing child restraint and seatbelt buckle covers. <sup>[8]</sup>



## 6. Standards and Legislation

### 6.1.3. AS/NZS 1754 Child restraint systems for use in motor vehicles <sup>[1]</sup>

Australia's child restraint standard (current version 2013) provides minimum design, construction, and performance requirements for child restraint systems to provide a high level of protection for children travelling in motor vehicles.

AS/NZS 1754 is a voluntary standard, with some parts mandated (since 1978) by the Australian Competition and Consumer Commission (ACCC) in its Consumer Protection Notice No.3 of 2014 (for the sale and supply of child restraints in Australia). <sup>[9]</sup> This notice ensures that child restraints supplied in Australia have key safety features considered appropriate to reduce the risk of injury to a child involved in a motor vehicle crash.

It is important to note that since October 2008, the ACCC has not mandated the relevant clauses of AS/NZS 1754 for the sale and supply of child restraints for children with disability (this includes medical conditions), which allows special purpose child restraints from overseas to be sold and supplied in Australia.

AS/NZS 1754 is currently under review with a new section expected to be published to allow for some variations to Australian standard child restraints, to cater for children with disabilities and medical conditions. MACA is represented on the working group responsible for the development of the proposed new section.

Whilst the inclusion of the child restraint system needs for children with disabilities is a significant advancement, it will rely on product manufacturers investing in the development of such products.

This standard is expected to be published mid-2024.

### 6.1.4. Australian Standard 5384 Accessories for seat belts for use in motor vehicles <sup>[10]</sup>

This new standard, published September 2023, includes requirements for postural support devices (which includes specialty harnesses/vests) and outlines crash testing, labelling, and packaging requirements. It also covers other accessories, such as pet restraints.

This is a significant advancement as there was previously no Australian standard that caters for the design, safety and performance of the specialty harnesses/vests sometimes used by people with disabilities and medical conditions in motor vehicles.

MACA was represented on the Standards Australia committee responsible for drafting this standard and represented the transport needs of people with disabilities and medical conditions.

MACA is promoting this standard to industry to encourage them to develop and supply products that meet this new standard.

AS 5384 is a voluntary standard.



## 6. Standards and Legislation

### 6.1.5. National Disability Insurance Scheme Act 2013, Section 34

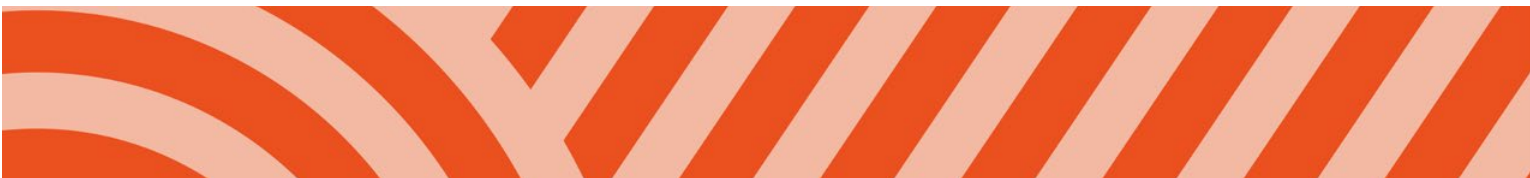
The NDIS funds a range of supports and services, which includes assistive technology – such as child restraint systems, which in some situations may apply to modified Australian standard child restraints. However, for the NDIS to consider the request as a *reasonable and necessary support* all the following criteria must be met, including:

#### *Section 34 Reasonable and necessary supports*

(1) For the purposes of specifying, in a statement of participant supports, the general supports that will be provided, and the reasonable and necessary supports that will be funded, the CEO must be satisfied of all the following in relation to the funding or provision of each such support:

- (a) the support will assist the participant to pursue the goals, objectives and aspirations included in the participant's statement of goals and aspirations
- (b) the support will assist the participant to undertake activities, so as to facilitate the participant's social and economic participation
- (c) the support represents value for money in that the costs of the support are reasonable, relative to both the benefits achieved and the cost of alternative support
- (d) the support will be, or is likely to be, effective and beneficial for the participant, having regard to current good practice
- (e) the funding or provision of the support takes account of what it is reasonable to expect families, carers, informal networks and the community to provide
- (f) the support is most appropriately funded or provided through the National Disability Insurance Scheme, and is not more appropriately funded or provided through other general systems of service delivery or support services offered by a person, agency or body, or systems of service delivery or support services offered:
  - (i) as part of a universal service obligation; or
  - (ii) in accordance with reasonable adjustments required under a law dealing with discrimination on the basis of disability.

(2) The National Disability Insurance Scheme rules may prescribe methods or criteria to be applied, or matters to which the CEO is to have regard, in deciding whether or not he or she is satisfied as mentioned in any of paragraphs (1)(a) to (f).<sup>[11]</sup>





## 7. Definitions

**Australian standard child restraint:** A child restraint system that is certified to AS/NZS 1754. The device is used in conjunction with a vehicle seatbelt or ISOFIX compatible lower attachment connectors to restrain a child passenger in a motor vehicle in the event of a vehicle impact and to minimise the risk of bodily injury. <sup>[2]</sup>

**Assistive technology:** Equipment or devices that help a person do things they can't do because of a disability. Assistive technology may also help a person do something more easily or safely. <sup>[12]</sup>

**Australian Safety Assessment Program (AuSAP):** Also known as AuSAP, this program was established by Mobility and Accessibility for Children in Australia Ltd and independently assesses specialty vehicle restraint systems designed for children with disabilities and medical conditions.

**Child restraint buckle cover:** An accessory product that is placed over the top of the buckle release on the built-in harness of a child restraint.

**Cross chest strap/chest clips:** Aftermarket devices designed to keep the shoulder straps of a child restraint's built-in harness together to minimise the chance of the harness coming off the child's shoulder. <sup>[13]</sup>

**Expanded polystyrene (EPS) foam:** An economical, versatile, lightweight, rigid, plastic foam insulation material produced from solid beads of polystyrene. <sup>[14]</sup>

**Extended crotch strap:** A Britax manufactured Hip Spica Adjustable Crotch Buckle (crotch buckle with extended strap) which is supplied to Britax approved safety advocates. The crotch buckle with extended strap provides a longer adjustable crotch buckle strap, that can temporarily replace the child restraint's crotch strap, enabling a longer length to accommodate the child's hip spica cast or brace. <sup>[17]</sup>

**Modified Australian standard child restraint:** A child restraint that includes accessories, postural supports, and/or additional padding that are not provided with the child restraint, and are not included in the child restraint manufacturer's instructions for use. <sup>[2]</sup>

**Prescriber:** A health professional with specialist training in assessing and prescribing for the motor vehicle transport needs of children and young people with disabilities and medical conditions. This includes an occupational therapist, physiotherapist, medical practitioner, and rehabilitation engineer. <sup>[15]</sup>

**Safe System approach:** This approach is based on an ethical position where it can never be acceptable that people are seriously injured or killed on the network. It provides a set of design and operating principles to guide action on the journey to the long-term elimination of death and serious injuries on our roads.



### The Safe System

The five pillars of the Safe System, as shown in the image, operate in harmony to reduce fatalities and serious injuries. It is intended to be an inclusive approach that caters for all groups using the road system. <sup>[3]</sup>

The principles of a safe system approach are:

**Human fallibility:** we all make mistakes on the road.

**Human vulnerability:** people are physically frail with limited ability to tolerate the forces in a crash.

**Forgiving system:** a road transport system must be 'forgiving' of mistakes within these limitations.

**Shared responsibility:** the responsibility for road safety is shared by system designers, maintenance, decision-makers and road operators and users.

## 7. Definitions

**Seatbelt buckle cover:** An accessory product that is placed over the top of the vehicle seatbelt buckle to prevent the occupant from accessing the seatbelt's release button.

**Specialty harness/vest:** A broad term used to describe the accessory products available in Australia for occupants with disabilities, medical conditions or behaviours of concern that provide postural support and/or reduce the risk of the occupant getting out of their seatbelt. <sup>[15]</sup>

**Special purpose car seat:** A vehicle restraint system that is specifically designed and designated as suitable for use by a child, or older occupant, with a disability or medical condition that complies with one or more of the following standards or regulations:

- United Nations Economic Commission for Europe Regulation No 44 Uniform provisions concerning the approval of restraining devices for child occupants of power-driven vehicles
- United Nations Economic Commission for Europe Regulation No 129 Uniform provisions concerning the approval of enhanced Child Restraint Systems used on board of motor vehicles
- United States Federal Motor Vehicle Safety Standard 213 Child restraint systems
- Canadian Motor Vehicle Safety Standard 213 Child restraint systems
- European Regulation 2017/745 on medical devices.



## 8. Procedures

### 8.1. Prescribers are responsible for:

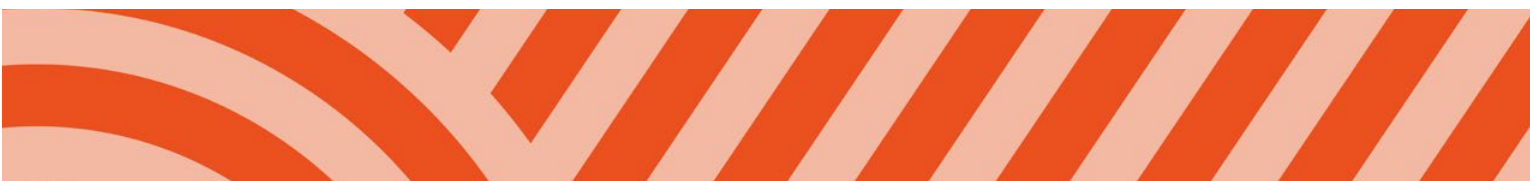
- undertaking specialist training relating to transporting children with disabilities and medical conditions in motor vehicles, such as MACA's specialty [training](#) course.
- assessing and prescribing for children's motor vehicle restraint needs in accordance with best practice.
- complying with relevant regulatory and legislative requirements.
- providing information to parents/guardians about their legal responsibilities when their child is using a modified Australian standard child restraint, this includes:
  - providing the parent/guardian with an [Advice to Parent form](#).
  - providing, where required by law, the parent/guardian with a medical practitioner referral letter to obtain a medical certificate for legal use of the modified Australian standard child restraint when travelling in a motor vehicle.
- educating parents/guardians on the use of the modified Australian standard child restraint.
- regularly reviewing the child's transport needs and updating the child's Motor Vehicle Transport Plan (refer to the MACA Guide). <sup>(15)</sup>
- keeping up to date with current research, laws, and best practice for the transport of children with disabilities and medical conditions in motor vehicles.
- maintaining appropriate documentation.

### 8.2. Parents/guardians are responsible for:

- complying with relevant laws when using a modified Australian standard child restraint (e.g., carrying a medical certificate in the vehicle).
- using the modified Australian standard child restraint in accordance with the instructions and education provided by the prescriber.
- ensuring other drivers transporting their child are provided with the required education and documentation for legal use of a modified Australian standard child restraint.
- notifying the prescriber if the modified Australian standard child restraint is not meeting the child's needs, or any other concerns relating to the child's positioning, comfort and safety when travelling in a motor vehicle.

### 8.3. Organisations are responsible for:

- ensuring staff have undertaken specialist training relating to transporting children with disabilities and medical conditions in motor vehicles.
- ensuring Work, Health and Safety obligations are met where staff are responsible for transporting children in modified Australian standard child restraints.
- complying with relevant regulatory and legislative requirements.
- ensuring that relevant policies and procedures are shared with staff, and regularly reviewed.



## 9. Appendices

- Appendix 1: Practice Guide: Modified Australian standard child restraints — additional padding
- Appendix 2: Documentation required for the legal use of modified Australian standard child restraints
- Appendix 3: FAQs

## 10. Authorisation

This policy was adopted by [insert name of organisation]  
on [insert date].

## 11. Policy review date

This policy will be reviewed by [insert name of organisation]  
on [insert date].

*MACA recommends that the policy is reviewed annually or more frequently  
in response to legislative and/or other changes and new products.*

## 12. Resources and training

There are a range of resources available to assist in guiding prescribing practice. This includes:

### The MACA Guide <sup>(15)</sup>

The guide is Australia's leading assessment and prescribing resource. It is designed for MACA trained professionals and assists with clinical reasoning and decision-making when assessing and prescribing for children's motor vehicle transport needs.

### MACA's online training courses <sup>(16)</sup>

#### Transporting children with disabilities and medical conditions

Designed for allied health professionals to build knowledge and confidence in assessing and prescribing for children's motor vehicle transport needs.

CPD: nine hours

#### Leadership in supporting the transport needs of children with disability

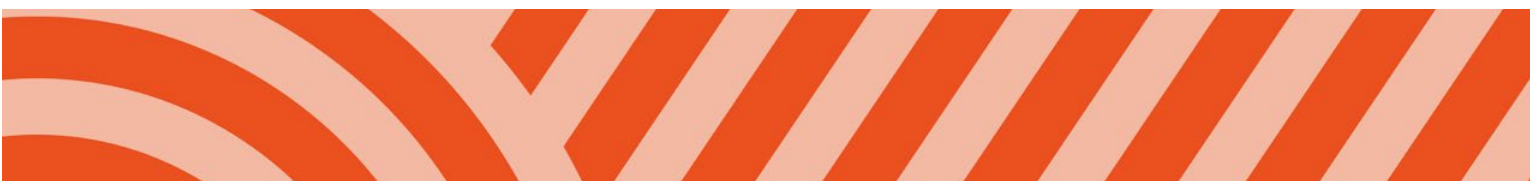
Designed for product suppliers and service organisations to develop confidence and leadership in product supply.

CPD: six hours

#### Workplace road safety leadership course

Designed to assist organisations in the care sector to manage vehicle-related risks in the workplace and influence their organisation to adopt a culture of workplace road safety.

CPD: six hours



## 13. Related MACA model policies

### *Buckle Cover Model Policy* <sup>(7)</sup>

This policy gives organisations and allied health professionals knowledge and guidance on best practice approaches and legal requirements for prescribing buckle covers for use in motor vehicles.

### *Extended Crotch Strap Model Policy* <sup>(17)</sup>

The policy provides guidance for organisations supplying crotch buckles with extended straps to support children travelling in hip spica cast or brace. The policy includes FAQs for allied health professionals and parents/guardians.

## 14. References

1. Standards Australia, Australian/New Zealand Standard 1754:2013 *Child restraint system for use in motor vehicles*
2. Standards Australia, Australian/New Zealand Standard 4370:2013 *Restraint of children with disabilities, or medical conditions, in motor vehicles*
3. Black, M. H., Falkmer, T., Hayden-Evans, M., Lindner, H., Clarkson, E., Vale, L., Picen, T., Kuzminski, R., & McGarry, S. (2024). *Safe Transportation of Children With Disabilities and Medical Conditions in Motor Vehicles: Experiences and Perspectives of Australian Health Professionals and Organisations*. *Journal of Road Safety*, 35(1), 15–26.
4. Cook, L., Brown, J., Kent, N., Whyte, T., & Bilston, L. E. (2024). *The effects of postural support padding modifications to child restraints for children with disability on crash protection*. *Traffic Injury Prevention*, 1–9.
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7. Standards Australia, Australian Standard AS 8005:2020 *Accessories for child restraints used in motor vehicles*.
8. Mobility and Accessibility for Children in Australia Ltd, *Buckle Cover Model Policy*, Version 9, April 2024, [maca | Policies \(macahub.org\)](https://macahub.org/maca/Policies).
9. Competition and Consumer Act 2010 - Consumer Protection Notice No. 3 of 2014 - Safety Standard: Child Restraint Systems for use in Motor Vehicles <https://www.legislation.gov.au/Details/F2014L01252>.
10. Standards Australia, Australian Standard 5384:2013, *Accessories for seat belts for use in motor vehicles*.
11. National Disability Insurance Scheme Act 2013 <https://www.legislation.gov.au/Details/C2022C00206>, accessed 29 April 2024.
12. <https://ourguidelines.ndis.gov.au/supports-you-can-access-menu/equipment-and-technology/assistive-technology/what-do-we-mean-assistive-technology>, accessed 29 April 2024.
13. Neuroscience Research Australia and Kidsafe Australia: *Best Practice Guidelines for the Safe Restraint of Children Travelling in Motor Vehicles*, 2nd Edition. Sydney: 2020, p.17.
14. [Expanded Polystyrene \(EPS\): Properties and Applications \(thomasnet.com\)](https://thomasnet.com/Expanded-Polystyrene-EPS-Properties-and-Applications), accessed 29 April 2024.
15. Mobility and Accessibility for Children in Australia Ltd, *The MACA Guide*, Version 3, May 2024.
16. Mobility and Accessibility for Children in Australia Ltd, *maca | Training (macahub.org)*, accessed 29 April 2024.
17. Mobility and Accessibility for Children in Australia Ltd, *Extended Crotch Strap Model policy*, Version 2, April 2024.



# Appendix 1



## Practice Guide: Modified Australian standard child restraints — additional padding

The following is provided as a guide for MACA trained professionals. The Practice Guide is informed by recent research relating to modifying Australian standard child restraints, and MACA’s broader research program.

The recent research relating to modified Australian standard child restraints, noted the following limitations:



- Crash testing was conducted with one type of forward facing Australian standard child restraint (Britax Maxi-Guard Pro, Type G, AS/NZS 1754:2013)
- Crash testing was undertaken with a Q1 dummy (equivalent to a one-year-old)
- Only frontal impact tests were undertaken.

Therefore, the authors note that the research findings may not be applicable to other forward facing child restraints, and cannot be applied to rearward facing child restraints, a larger child or side impact crashes.

Head padding	
Research findings	MACA guidance
<p>The research found that:</p> <ul style="list-style-type: none"><li>• placing padding behind the head increased head excursion in the crash tests, increasing injury risk.</li><li>• padding (firm EPS foam and toweling) used between the head wing and side structure of the child restraint, did not increase head excursion.</li></ul> <div></div> <div><p>Image: EPS foam positioned in side wings with the child restraint's outside cover removed</p><p>Image: EPS foam placed under the child restraint's outside cover for crash testing</p></div>	<p>Where a child has been assessed as requiring additional support for the positioning of their head, investigate:</p> <ul style="list-style-type: none"><li>• alternative Australian standard child restraints that may offer increased support for the child’s head (forward facing and rearward facing)</li><li>• AuSAP assessed special purpose car seats.</li></ul> <p>If additional padding is required:</p> <ul style="list-style-type: none"><li>• do not use padding behind the child’s head</li><li>• consider firm EPS foam secured between the head wing and side structure (secured under the cover)</li><li>• consider short term use of toweling</li><li>• ensure any EPS foam or toweling being used is secured to the child restraint under the cover of the restraint</li><li>• ensure padding does not exceed 2 kg in total weight.</li></ul>

## Appendix 1 (cont)

### Practice Guide: Modified Australian standard child restraints — additional padding

Padding used as a wedge	
Research findings	MACA guidance
<p>The research found that:</p> <ul style="list-style-type: none"> <li>padding used as a wedge under the restraint to increase the recline angle increased head injury metrics.</li> </ul> <p>Note: For the test, the child restraint was installed with the vehicle seatbelt (no ISOFIX), and the wedge was not secured to the child restraint.</p>	<p>Where a child has been assessed as requiring additional recline, investigate:</p> <ul style="list-style-type: none"> <li>alternative Australian standard child restraints which may offer greater recline (forward facing and rearward facing)</li> <li>AuSAP assessed special purpose car seats.</li> </ul>
Combined use of toweling	
Research findings	MACA guidance
<p>The research found that:</p> <ul style="list-style-type: none"> <li>combined use of toweling in multiple locations (e.g., behind head and pelvis, along both sides of the trunk, behind pelvis and lateral to the thighs) can substantially increase the risk of injury.</li> </ul> <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Image: Set-up with padding in multiple locations</p> </div> <div style="text-align: center;">  <p>Image: Set-up with no padding</p> </div> </div>	<p>Where a child has been assessed as requiring additional postural support (multiple locations), investigate:</p> <ul style="list-style-type: none"> <li>alternative Australian standard child restraints (forward facing and rearward facing)</li> <li>AuSAP assessed special purpose car seats.</li> </ul> <p>If additional padding is required:</p> <ul style="list-style-type: none"> <li>do not use padding behind the child's head</li> <li>limit the use of padding to single locations (head, pelvis, knees, crotch)</li> <li>use firm EPS foam for padding under the knees or as a crotch roll</li> <li>ensure any EPS foam or toweling being used is secured to the child restraint under the cover of the restraint</li> <li>ensure padding does not exceed 2 kg in total weight.</li> </ul>

## Appendix 2

### Documentation required for the legal use of modified Australian standard child restraints

The table below outlines the documentation requirements in each state and territory for the legal use of modified Australian standard child restraints when travelling in a motor vehicle.

This document is regularly updated to reflect any changes to relevant laws. However, if you need assistance, please get in touch: [contact@macahub.org](mailto:contact@macahub.org).

**Table 1: Summary of documentation required in each state and territory**

State or Territory	Under Four Years	Four to Under Seven Years	Seven to Under 16 Years	16 Years and Over
<b>ACT</b>	Medical certificate	Medical certificate	Medical certificate	Medical certificate
<b>NSW</b>	Medical certificate	Medical certificate	Medical certificate	Medical certificate
<b>NT</b>	Medical certificate	Medical certificate	Medical certificate	Medical certificate
<b>SA</b>	Medical certificate	Medical certificate	Medical certificate	Medical certificate
<b>VIC</b>	Medical certificate	Medical certificate	Medical certificate	Medical certificate
<b>QLD</b>	Advice to Parent form <b>or</b> Medical certificate	Advice to Parent form <b>or</b> Medical certificate	Advice to Parent form <b>or</b> Medical certificate	Medical certificate
<b>WA</b>	Advice to Parent form and medical certificate (to confirm diagnosis) <b>or</b> Medical certificate	Advice to Parent form and medical certificate (to confirm diagnosis) <b>or</b> Medical certificate	Advice to Parent form and medical certificate (to confirm diagnosis) <b>or</b> Medical certificate	Medical certificate
<b>TAS</b>	Medical certificate <b>and</b> exemption from the Department of State Growth (depends on modification)	Medical certificate <b>and</b> exemption from the Department of State Growth (depends on modification)	Medical certificate <b>and</b> exemption from the Department of State Growth (depends on modification)	Medical certificate <b>and</b> exemption from the Department of State Growth (depends on modification)

## Appendix 3

### FAQs

#### Is it legal for a child to travel in a modified Australian standard child restraint?

There are legal requirements, such as a medical certificate, to comply with when a child is travelling in a modified Australian standard child restraint. Refer to Appendix 2 for the requirements in each state and territory.

For more information about the road laws in each state and territory visit MACA's [website](#).

#### What should I do if I become aware that a parent has modified their child's Australian standard child restraint?

Some parents may not be aware that modifying an Australian standard child restraint means that it no longer complies with the Australian standard and may impact their child's safety in a crash.

The child's motor vehicle restraint should be assessed by a prescriber to identify the most suitable option for the child and family's needs.

#### Where can I learn more about modified Australian standard child restraints?

Assessing and prescribing for children's motor vehicle transport needs is a specialist area of practice. MACA has developed a number of online training courses to ensure that allied health professionals and organisations have access to the most up-to-date evidence-based information to support and guide practice. Visit MACA's [website](#) for more information.

#### Can you purchase a modified Australian standard child restraint?

There are many accessory products available for purchase over the counter, or online that when used in combination with an Australian standard child restraint 'modify' the child restraint. This includes, for example buckle covers and cross chest straps.

Some hospitals have Equipment Distribution Centres (or similar) that provide short-term use of modified Australian standard child restraints (e.g., for Hip Spica transport). These products are supplied based on the assessment of the child's motor vehicle transport needs by a trained health professional.

#### What is the recommended review period for the use of a modified Australian standard child restraint?

Modified Australian standard child restraints are generally prescribed for short-term use, for situations such as a child travelling in hip spica. The review period will depend on many factors, such as the expected period of use, how likely the modification is to stay in place, and the child's growth profile.

#### What are the risks of using modified Australian standard child restraints?

There are potential risks associated with using modified Australian standard child restraints.

However, these risks can be managed by ensuring you have policies and processes in place to guide your practice, for example trialling different products with the family, regularly reviewing the child's transport needs, and providing parent education.

## Appendix 3 (cont)

### FAQs

#### Where can I find information about the types of specialty vehicle restraint systems available in Australia?

MACA is leading an unprecedented research and development program to improve access to evidence-based information, resources, training, and products.

MACA's website, funded by the Australian Government Department of Social Services, is a trusted source of information about transporting children with disabilities and medical conditions in motor vehicles. The website includes a National Product Register, which includes a list of Australian standard child restraints more commonly used by children with disabilities and medical conditions; and special purpose car seats that have been independently assessed (and sled-crash tested) by MACA's Australian Safety Assessment Program (AuSAP).

#### Where can I learn more about assessing and prescribing for children's transport needs?

MACA has developed a specialist course for allied health professionals — *Transporting Children with Disabilities and Medical Conditions*. This course is self-paced and delivered online, with over 700 Australian allied health professionals enrolled.

For more information about training visit MACA's [website](#).

#### What is a cross-chest strap?

Cross-chest straps are after-market devices applied to the child restraint harness to reduce the risk of the child releasing their arms from the harness during transport. The Houdini Stop appears to be the most commonly available product in Australia. These types of add-on chest clips have not been well studied and there is no real-world injury data.

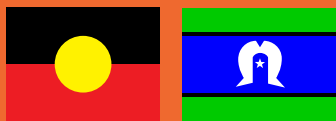
AS/NZS 8005 and AS 8005 include cross-chest straps, however there are no cross-chest straps certified to this standard.

According to the *Best Practice Guidelines for the Safe Restraint of Children Travelling in Motor Vehicles*, add-on chest clips (other than those supplied with the restraint or certified under AS/NZS 8005), are not recommended. Behavioural solutions are preferred.

The relevant excerpt from the Best Practice Guidelines is provided below.

*This consensus-based recommendation is based on expert opinion, taking into account the following considerations. Add-on chest clips (aftermarket devices not supplied with the restraint) have not been well studied and there is no real-world injury data. The potential risks associated with the increased difficulty of removing a child from a restraint in an emergency when one of these devices is used, together with potential for a child to quickly learn to operate such a device, negating its benefits; the potential for injurious throat contact if the device is positioned improperly. Chest clips that have been provided with the restraint by the manufacturer, or certified under AS/NZS 8005 may be safe to use. Future designs of after-market accessories for this purpose that have been certified to AS/NZS 8005 may be considered for use if behavioural approaches fail.*





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