

## FACTSHEET: CMPVI Effectiveness of Belt Positioning Booster Seats 2010



### Overview

A booster seat is used in conjunction with an adult safety belt. They are simple to use, lightweight and inexpensive. Using a booster seat with a safety belt instead of using a safety belt alone for a child between the ages of 4 and 7 reduces the risk of injury by 59 percent. Many countries recommend the use of booster seats beyond the age of five. In September 2006, the United Kingdom introduced a new law where all children under the age of 12 will have to use some form of child car seat, unless they are taller than 135cm (4ft 5in).

**There are five key tests that can be used to check if your child is safe just with a safety belt or requires a booster seat.**

1. Can they sit right back in the seat without their legs sticking straight out in front of them?
2. Is the diagonal part of the safety belt over their shoulder and not against their neck?
3. Is the lap part of the safety belt staying low over their thighs and not riding up across their tummies?
4. Are their knees bent comfortably over the edge of the seat?
5. Can they stay seated like that for the whole trip?

Figure one:

This demonstrates the way children become incorrectly positioned when they do not have a booster seat.

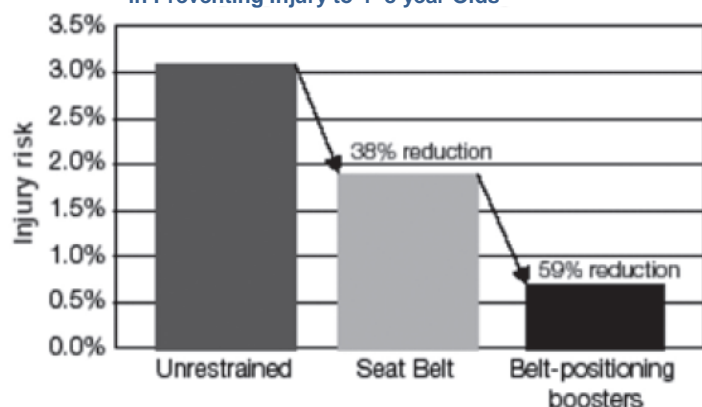


Photo courtesy of the Herald on Sunday, 2008.

### Effectiveness of Belt Positioning Booster Seats

- Belt positioning booster seats are effective for children ages 4 through to at least 7 years.
- Using a booster seat with a safety belt instead of using a safety belt alone for a child this age reduces the risk of injury by 59 percent.<sup>2</sup> (Figure two)
- The booster seat corrects the fit of the safety belt on the child, reducing the risk of injuries.<sup>3</sup>
- A safety belt that does not fit properly can cause severe head, spine and abdominal injuries in a crash

Figure two  
Effectiveness of Belt Positioning Booster Seats in Preventing Injury to 4- 8 year Olds



## Advantages of using a booster seat

Booster seats are for children who, because of their height and physical proportions, will not receive full protection from an adult safety belt. They have many advantages.

These include:

- **Safer travel:** Children seated in a booster seat are less likely to be seriously injured or killed in the event of a crash.
- **More comfortable:** Booster seats make your car seat more comfortable for your child to use. Children who are too small for the adult car seat wriggle forward so that their legs are comfortable, and “slouch” rather than sitting up straight. This is one of the reasons they become susceptible to injury.
- **Better viewing:** Booster seats raise your child in the car seat and they are more easily able to see out of the car window.
- **Easy to use:** Eighty-nine percent of NZ children, who were using booster seats, were found to be using them correctly.<sup>4</sup>
- **Reasonable cost:** Booster seats are relatively inexpensive and simple to fit and use.
- **Overseas countries require boosters:** When travelling overseas, many countries now require booster seats.

## How long do children need to use a booster seat?

It's all about your child's height and age – and how well they fit a safety belt.

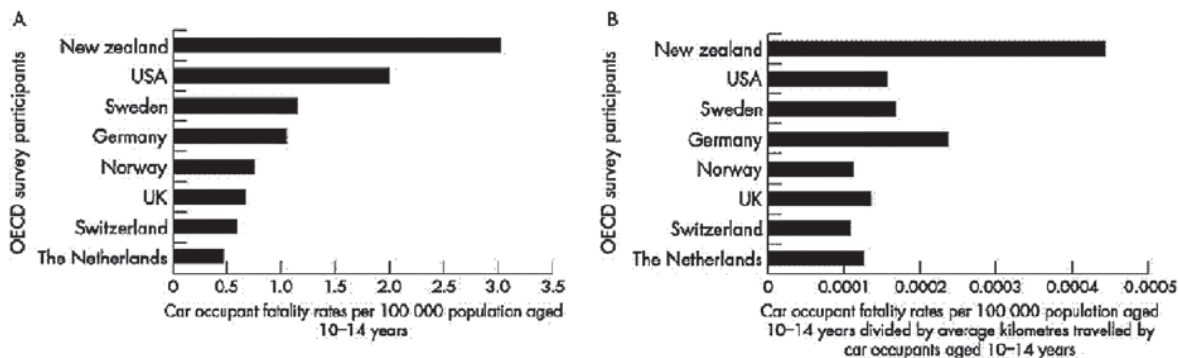
Height is the best guide for knowing when to graduate a child from a booster seat into a safety belt. Experts advise that children should use a booster seat while they are shorter than 148 cms in height. The United Kingdom requires car drivers to provide a booster seat for children shorter than 135 cms.<sup>5</sup>

Age is also an indicator for knowing if your child might still need to use a booster seat.

Almost all children need to use a booster seat at five years old. The majority of children still need to use a booster seat at eight years of age. A few children might still benefit from using

Figure three:

- A. Car occupants aged 10-14 years: population-based fatality rates for a sample of Organisation for Economic Cooperation and Development (OECD) countries.
- B. Car occupants aged 10-14 years: population-based fatality rates expressed per unit of exposure for a sample of OECD countries.



<sup>1</sup> Cameron L, et al., “Safe restraint of the child passenger.” *Journal of Paediatrics and Child Health*, 2006, 42(12), pp. 752-757

<sup>2</sup> *Three steps to optimizing child passenger safety laws*, Partners for Child Passenger Safety (PCPS): [http://stokes.chop.edu/programs/3injury/educational\\_advocacy/fact\\_sheets.php](http://stokes.chop.edu/programs/3injury/educational_advocacy/fact_sheets.php), accessed November 2008.

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<sup>4</sup> Cameron L, et al., “Safe restraint of the child passenger.” *Journal of Paediatrics and Child Health*, 2006, 42(12), pp. 752-757.

<sup>5</sup> National Transport Commission (2007). *Australian Road Rules 7th Amendment Package 2007 - Regulatory Impact Statement*.

<sup>6</sup> Cameron L, et al., “Safe restraint of the child passenger.” *Journal of Paediatrics and Child Health*, 2006, 42(12), pp. 752-757.

<sup>7</sup> Klinich, B. Pritz, et al. (1994). *Study of older child restraint / booster seat fit and NASS injury analysis*. N. H. T. S. Administration, US Department of Transportation.

<sup>8</sup> Christie N, et al., “How exposure information can enhance our understanding of traffic ‘death leagues’.” *Injury Prevention*. 2007, 13(2). pp. 125-129.

This Factsheet was produced by Safekids NZ April 2010