

Research report no. 2018-T-03-SEN

## **Children**

Thematic File Road Safety N°17





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## **Summary**

Children – a group defined in this report as persons under the age of 15 – are considered to be vulnerable road users. This mainly has to do with the fact that they are still developing the skills they need to get about in traffic safely. In addition, because of their size, children are less visible than other road users. They also have a different body structure compared to adults, which makes them more at risk as car passengers than adults.

European accident data show that children only constitute a small part of the total number of deaths on the road. The number of child deaths also showed a very favourable downward trend between 2006 and 2013. In addition, the risk of serious or fatal injuries for children, based on the number of kilometres travelled on the road, is lower than for the average road user. Exposure data show that children travel fewer kilometres in cars than adults; they tend to get about more often as pedestrians or cyclists. However, recent decades have shown a trend towards children travelling more often by car. The increasingly subjective sense of safety (or lack of it) displayed by parents has played a major role in this development. This trend has had two detrimental consequences: there is more motorised traffic than ever before, which increases the danger for both pedestrians and cyclists; it also means that children are given less of an opportunity to develop their skills as pedestrians or cyclists in traffic.

As active road users, they need to have a range of different skills. For example, a simple task such as crossing the road requires a set of cognitive, sensory, and physical skills. Depending on the age of the children in question, as well as the extent to which they have been given the opportunity to get about on their own and practise their skills (both in traffic and away from it), every child has a different level of skills that they can use independently in traffic. The developmental process that children go through also has an influence on their safety as car passengers: because of their varying physical build, a seatbelt alone is not sufficient as a safety system for children; so they require appropriate child restraint systems.

Parents and caregivers play an important role in the road safety of children. Because of children's limited independence, it is parents who decide on the means of transport that they use. This also applies to whether they wear a bike helmet or fluorescent outerwear and which route they take to school. Parents play an additional role as informal teachers, passing on their road safety and traffic skills to their offspring; plus, they are important in setting a good example. When they transport their children in cars, parents and caregivers are also responsible for choosing an appropriate child restraint system and ensuring correct installation. When children are transported as passengers on a bicycle, the parents need to ensure they are transported properly with an appropriate restraint system.

Measures that can be taken to improve the road safety of children lie mainly in education. Both by putting effective formal education programmes in place and by making parents aware and telling them about their role as informal teachers, the safe developmental process of children to become safe, independent road users can be attained. Changes to the infrastructure can also help improve the safety of children: separating slow-moving traffic from faster, motorised vehicles, or reducing the speed of motorised traffic can all contribute to the improved safety of children, whether they are on foot or travelling by bicycle. Infrastructure can also be designed from the perspective of children. Vehicle technology can make a contribution towards reducing speed, as can systems for better detecting small vulnerable road users and restricting the seriousness of the effects of a collision. Wearing a bike helmet reduces the likelihood of serious head injuries and there are also various measures in place designed to promote the correct use of appropriate child restraint systems.

Fourteen children were killed on the road in Belgium in 2017. This is a number that has fallen very sharply in recent decades; the proportion of children in the total number of road deaths has also declined. Compared with other European countries, Belgium is ranked somewhere in the middle. The number of victims rises with age and is somewhat higher among boys, compared with girls. In 2017, almost half of road accident victims under the age of 15 were passengers in cars, although this number rises with age. Accidents involving children occur mainly when they are on their way to school or back home again. They also occur somewhat more frequently than for other road users in built-up areas. Most of the accidents that occur on the way to and from school happen within a radius of 300 metres outside the 30 km/h speed limit around schools. Finally, the figures for 2017 in Belgium show that less than 1 child in 4 is carried in an appropriate child restraint system that has been installed correctly.

