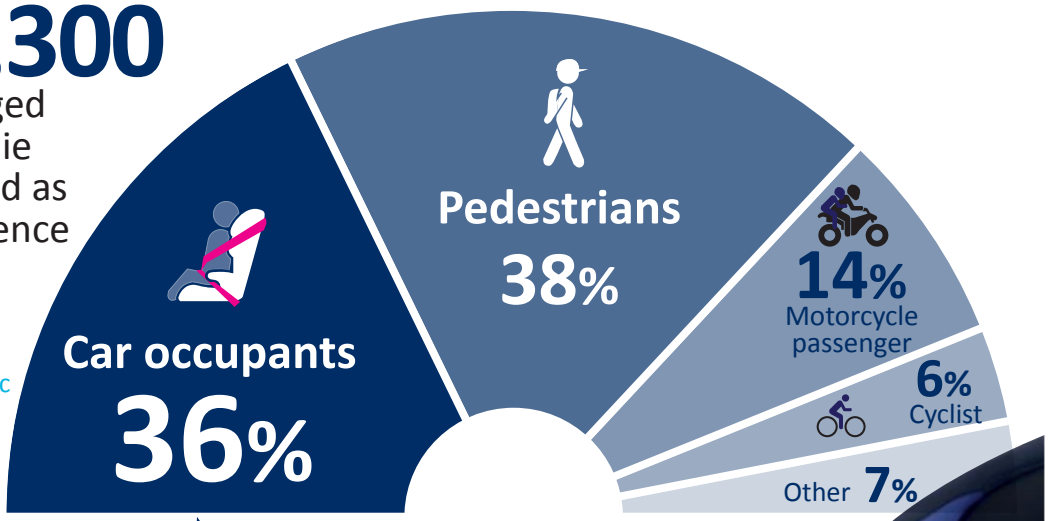
CRS AND ROAD SAFETY

Every year,

186.300

children aged under 18 die in the world as a consequence of traffic accidents.

36% of dead children in traffic accidents were occupants in a four-wheeled vehicle.



Every 8 minutes a child dies in a car accident

* The Convention on the Rights of the Child considers every human being under 18 a “child”.

The Child Restraint System (CRS) is the only element of passive vehicle safety adapted for children

IT HELPS TO REDUCE THE CONSEQUENCES ON CHILDREN OF A CAR ACCIDENT

Other main passive safety elements are:

The body shell | Airbags | Seat belts | Head rests

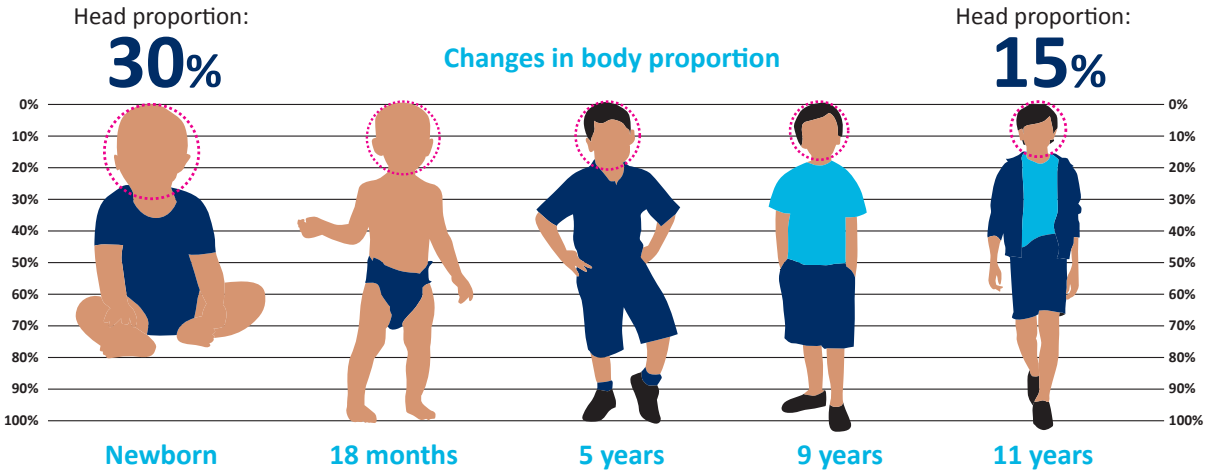
Unlike CRS, the rest of passive safety elements are not designed for specific child protection and do not protect them properly in the event of collision.

FIA FOUNDATION | FIA ROAD SAFETY GRANT PROGRAMME | FIA ACTION FOR ROAD SAFETY

A CRS for each growth phase

BODY EVOLUTION

In the countries with a specific regulation, **child seats are usually mandatory since child´s birth until they are 10-12 years old**. During this period, the child´s body undergoes an extraordinary transformation.



TYPOLOGY OF CHILD SEATS

There are four basic types of child seats designed to provide the best protection in each growth phase.

(*) Homologated system which is not advisable because it does not provide any protection.

Rear-facing installation child seat (with harness):

It reduces ,in case of a crash, the pressure on the neck and backbone which are very fragile.

Forward-facing installation child seat:

the harness offers a maximum level of restraint to distribute the impact´s force and prevent serious injuries to the head and abdomen.

Booster with backrest:

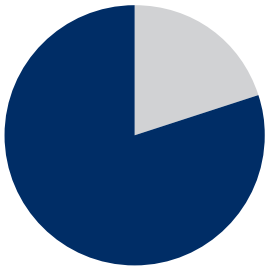
It restrains the child with the help of the vehicle´s seat belt. The backrest offers a higher lateral protection.

Booster without backrest*:

It restrains the child with help of the safety belt. It is recommended to use the booster with backrest as mush as possible.

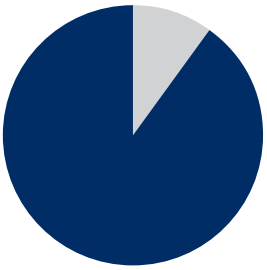
EFFECTIVENESS

The correct use of a Child Restraint System (CRS):



Reduces the child´s risk of death in case of a traffic accidents up to:

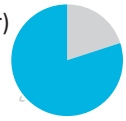
80%



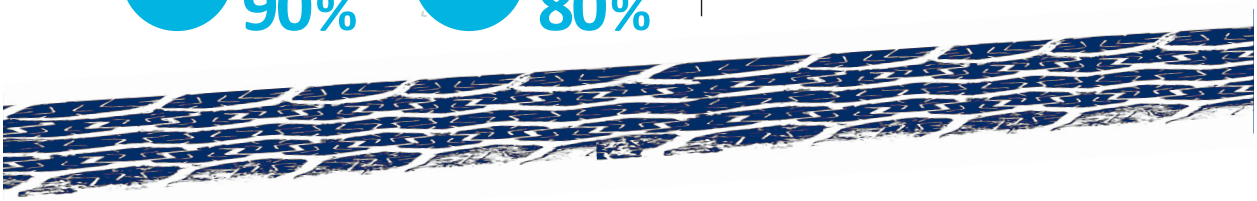
Risk of injury is reduced by

90%

Infants (<1 year) by **90%**



Toddlers by **80%**



Legislation: countries with specific regulations on CRS

96 countries have a specific act on CRS use

56% countries
Child restrain law

44%
No child restrain law

But they only represent 32% of the global population

32% 68%

…and only 23% adequately supervises its enforcement

23% 77%

Main sources

Global status report on road safety 2013/15 (WHO).

Ten strategies to preserve child road safety (campaign #Savekidslive).

Seat belts and child restraint systems. A manual of road safety for decision-makers and professionals (FIA Foundation).

Seatbelts: current issues (University of California Berkeley Traffic Safety Center Newsletter, 2002).