

# CLASSIFICATION OF CHILD RESTRAINT SYSTEM



TRƯỜNG ĐẠI HỌC  
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HANOI UNIVERSITY OF PUBLIC HEALTH



GLOBAL  
ROAD SAFETY  
PARTNERSHIP

## 1. CRS FOR INFANTS AND CHILDREN UNDER 1 YEAR (GROUP 0, 0+)



At birth, an infant's head is about a quarter of infant's total body length and accounts for about a third of infant's body weight. An infant's skull is very flexible, so a relatively small impact can lead to significant damage to the skull and brain.

Besides, the infant's rib cage is also very flexible. Impact to the chest can lead to massive compression of the chest wall of the heart and lungs, abdomen, and internal organs. An infant's pelvis is unstable and cannot withstand the forces of an adult seat belt.

### Installation Instructions:

1. Secure the CRS to the car seat as much as possible to ensure that the seat belt is not loose or stretched.
2. Adjust the car seat belt to the baby's chest. When installed correctly, the car seat cannot move or rotate.
3. Test by inserting your finger between the belt and your baby's shoulder.

## 2. CRS FOR CHILDREN AGED 1-4 years (GROUP I)

For this group of children, their bones are also immature, and their skulls are still weaker than those of adults.

Therefore, the child needs to be seated on CRS to limit the forward movement of the head in the event of a head-on collision and to protect the child from external impacts.

Let children sit in specialized safety seats with straps that fit tightly to the body to distribute impact force and limit injury to important positions.

### Installation Instructions:

1. Secure the CRS to the car seat as much as possible to ensure that the seat belt is not loose or stretched..
2. Place the child in a dedicated safety seat with a tight-fitting harness to distribute impact force and limit injury to critical locations.



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## 3. 4.1.2.2. CRS FOR CHILDREN AGED 4-6 YEARS (GROUP II)



The booster seat is designed for children weighing between 15 kg and 25 kg. Children should continue to sit in a booster seat until the seat belt fits them, when the child has reached a height of about 145cm

This type of seat elevates the child's sitting position to ensure that the seat belt is properly positioned across the chest, crossed over the shoulder, not the neck, and low across the pelvis. If an adult's seat belt is in too high position, a crash can lead to injury of internal organs, or a child can slip under the seat belt. This type of seat also has a safety effect to help prevent crashes of both sides of children.

### Installation Instructions:

1. Secure the CRS to the car seat as much as possible to ensure that the seat belt is not loose or stretched.
2. Laying the belt between the chest and shoulder, the thighs need to be held in the upper thigh to stabilize the body

## 4. CRS FOR CHILDREN AGED 6-11 YEARS (GROUP III)

The booster seat without backrest is designed for children weighing between 22 kg and 36 kg. Child booster seats have been shown to reduce the risk of injury by 59% compared with seat belts alone

Recent research shows that children who sit in the booster seat positioned in the center rear seat are less likely to be injured than those in the outer seat positions, although this is in contrast to some earlier studies with findings that the center seat is not a safer sitting position



### Installation Instructions:

1. Set the lift to the location and fixed through points..
2. Using the safety belt on the car, through the shoulder and chest of the child.