

# High Risk Infants and Preemies

The American Academy of Pediatrics (AAP) recommends that at-risk infants undergo a period of observation in a car seat or car bed before hospital discharge, known as the Car Seat Tolerance Screen, previously referred to as the Car Seat Evaluation/Challenge or Angle Tolerance Test in order to monitor for possible apnea, bradycardia or arterial oxygen desaturation.

Infants at-risk for apnea, bradycardia and desaturation are:

- Infants born <37 weeks gestational age.
- Infants with Birth Weight <2500 grams (5lbs 5oz).
- Infants with medical conditions that place them at risk, including but not limited to those with hypotonia, airway anomalies or cyanotic congenital heart disease/surgery.

High risk infants who meet any of the above criteria will undergo a period of observation in their rear-facing car seat usually 30-60 minutes after feeding. **The recommended observation is 90-120 minutes or the estimated time of travel, whichever is longer.**

The infant is considered to have passed the Car Seat Tolerance Screen if there are no episodes of apnea, bradycardia or oxygen desaturation for the duration of the car seat evaluation. If an infant who has been properly positioned and monitored in the rear-facing car seat for the recommended period of observation does **not** pass the car seat tolerance screen, the infant will then be considered for re-evaluation. The evaluation may include further medical intervention, repositioning and retesting, or retested in a car bed if the child is otherwise healthy and approved for discharge.

Currently, there are two car beds available. They are the Dreamride and Hope car bed. The PA Traffic Injury Prevention Project staff are available for trainings regarding child passenger safety and the proper selection and use of car seats and car beds for discharge of newborns and children.



## Car Seat Tips for Low Birth Weight Babies & Preemies

### Selection

- The infant should fit in the weight and height requirements of the car seat. Several rear-facing only or convertible car seats have a weight range that starts at 4 pounds.
- Choosing a seat that has a smaller harness and/or many harness slots may fit the infant better.
  - Car seats with multiple harness slots offer more opportunities to adjust the harness height to accommodate small but growing infants.
- The distance from the lowest set of harness slots to the bottom of the car seat should be short enough so that the harness is positioned at or below the infant's shoulders and the harness retainer clip is at armpit level.
  - The harness is tight enough if your fingers slide off the harness when you pinch the webbing at your child's shoulder.
- The distance from the crotch strap to the back of the seat should be short enough so that the baby's bottom is held back against the child safety seat and does not slide forward. Car seats often have inserts/padding to fit a small infant.
  - If there is a gap between the child and the crotch strap, check with the car seat manufacturer to determine if a rolled diaper, wash cloth, or receiving blanket can be placed between the crotch strap and the infant to prevent the infant from sliding forward.

### Harnessing & Installation

- Place the car seat in a back seat facing the rear of the vehicle. The infant should remain rear-facing until age 2 or until the child reaches the highest weight and/or height allowed by the car seat manufacturer.
- Place the infant in the car seat with the child's back and buttocks flat against the back of the car seat. The harness should be snug, you should not be able to pinch any extra webbing.
- Place the harness retainer clip at armpit level.
- Use only the head-support systems or infant inlays that come with the car seat. Avoid any head supports or additional padding that are sold separately, unless approved by the car seat manufacturer.
  - If your infant is very small and needs more head and body support, a blanket roll may be placed on both sides of the infant. Read the car seat instructions or contact the car seat manufacturer to learn if adding the support is permitted.



### Other considerations

- Minimize travel and only use the car seat for travel. A car seat should not be used for sleeping outside of the vehicle.
- Travel with an adult in the back seat to observe the baby.
- Never place the car seat in the front seat with an active passenger-side airbag.
- Never leave your child unattended in a car seat, in or out of the car.

# Car Beds and General Use Guidelines

Car beds are designed for infants who must travel lying down. Car beds may be warranted for babies who have:

- cardio-respiratory conditions,
- lower extremity casts,
- omphalocele and other midline chest or abdominal defects, or
- neuromuscular disorders.

Use of car beds should be reserved for those babies who demonstrate a medical necessity.

Babies discharged in car beds should have a period of observation in the car bed prior to discharge to ensure that placement in the car bed will not exacerbate any of the babies' symptoms. Additionally, when the physician determines the baby may be able to ride semi-upright, a follow-up period of observation in a rear-facing car seat should be conducted to make sure the baby is ready to transition to a rear-facing position.

## Car Bed Installation Basics

Always read and follow the manufacturer's instructions when installing a car bed. If you are unsure, seek the advice of a certified child passenger safety technician.

Basic installation tips for all car beds:

- Make sure the car bed is installed with the **baby's head toward the center of the vehicle**. The baby's head should **NOT** be next to a vehicle door.
- Install the car bed using either LATCH lower anchor connectors or the seat belt.
  - Follow the car seat instructions for correct routing of the lower anchor connectors/seat belt.
  - Follow the vehicle manual to locate the lower anchors or learn how to lock the seat belt. Secure the car bed tightly against the vehicle seat. The car bed is tightly installed when it does not move more than one-inch from side-to-side or front-to-back when pulled at the belt path.
- Secure the infant snugly in the harness system/restraint bag (per manufacturer's specific directions).

## Dreamride Car Bed: Manufactured by Dorel Juvenile Group



The Dreamride installs side-facing and is designed for transporting children with special health care needs and other medically fragile conditions who weigh between 5 and 20 pounds and are 19 to 26 inches in height. The Dreamride Car Bed:

- Allows infants to be positioned lying down on their back.
- Secures the infant with a 3-point harness that is adjusted from the back of the shell.
- Has a carry handle that must be in the upright and locked position when installed in the vehicle.

The car bed is equipped with the LATCH lower anchor connectors and one set of loops to enable seat belt installation when lower anchors are not available in the vehicle. The expiration date is 8 years from date of manufacture.

## Hope Car Bed: Manufactured by Merritt Manufacturing, Inc.

The Hope Car Bed is designed for children with special health care needs who require a larger car bed. The weight range for the child is 4.5 to 35 pounds and up to 29 inches in height (longer if the child is able to bend their knees). Due to the size of the child and the weight of the car bed there are side handles for easy transport outside the vehicle. The Hope Car Bed comes with a small restraint bag, a small cummerbund, a three point harness and a large cummerbund to cover the full range of weights up to the maximum 35 pounds. The Hope Car Bed:

- Offers 5 different restraint options:
    - Two sizes of restraint bags with cummerbund for supine, prone, or side-facing positions.
    - 3-point harness with cummerbund for supine or prone position,
  - Available accessories include: side-facing restraint bag and leveling wedge
- The car bed vehicle installation requires the use of two seat belts. There are also leveling straps to assist with a snug installation. The Hope Car Bed shell has a life span of 10 years and all parts are replaceable.



## AngelRide: Manufactured by Angel Guard: **DISCONTINUED**



The AngelRide Infant Car Bed is no longer being manufactured. Angel Guard recognizes the product has served a special need, providing a transportation solution to premature and low birth weight infants. After careful consideration, Angel Guard made the difficult decision that it was no longer financially feasible to produce this car bed. Any car beds that have not reached their expiration date can be used. This car bed has a 4-year life span with the expiration date stamped into the bottom of the car bed shell.

This car bed is designed for an infant:

- Weighing less than 9 pounds and less than 21.5 inches in height.
- Positioned on their back, stomach, or right side.
- Secured with a 3-point internal harness.

The seat belt is routed around the shell of the car bed for vehicle installation.