



Transporting Our Most Special Passengers

Navigating the Options for Adaptive Car Safety Seats

DATE: FEBRUARY 24, 2022 PRESENTED BY: KYNDRA LATHIM, CPSTI

- Case Study 1: Hip SPICA casts
- Case Study 2: Behavioral concerns
- Low birth weight/premature infants
- Hypotonia
- Funding

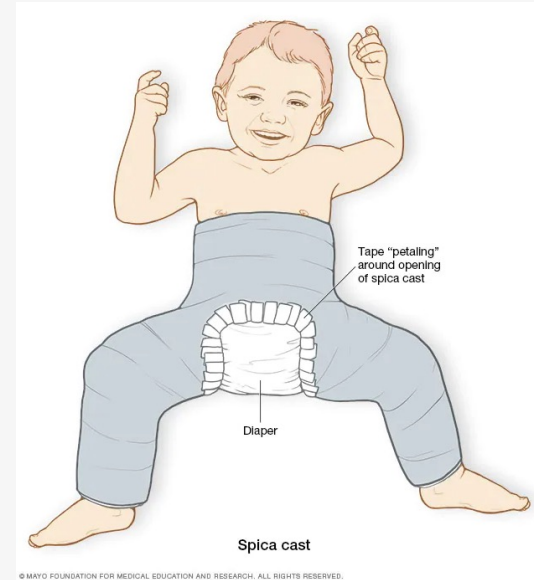


This presentation is designed to give a guideline with how to transport children with special healthcare needs and how to navigate the resources. It is not all inclusive.

OHSU does not represent or endorse any car seat manufacturer.

Case Study 1: Casts

- Child: 5 years old, 40", and 48 pounds
- Late diagnosis of hip dysplasia
- Hip SPICA cast
- Doernbecher Children's Hospital
- Lives one hour away



Resources

- No-cost loaner programs
- Hands-on installation and harnessing education
- Return at removal
- Drop it off or mail



5

Source: Merritt Manufacturing



Source: EZ ON

Merritt Manufacturing Wallenberg

- Rear Facing: 5 – 40 pounds
- Forward Facing: 25 – 80 pounds, minimum of 2 years old*
- Hammock
- Wedge



Source: Merritt Manufacturing

EZ-ON Lay Down Vest

- 12 months+
- 22 – 106 pounds
- Shorter than width of vehicle
- Restrictions



Source: EZ ON

Hope Car Bed

- 4.5 – 35 pounds
- 13 – 29 inches*
- Restraint bag or harness
- Restrictions



Source: Merritt Manufacturing

Case Study 2: Behavioral Concerns

- Child: 7 years old, 4'6, and 65 pounds
- Autism Spectrum Disorder, hyperactive
- Outgrown harness car seat and ready to move to a booster
- Plays with chest clip



Case Study 2: Let's talk about boosters

- **What is a booster seat?**

- Positions the adult seat belt to properly fit a child's body. Places the lap portion on the child's hips/upper thighs and the shoulder belt over the child's shoulder.

- **Best Practice**

- When the child outgrows the harness car seat (4 – 7 years old)
- Booster is only as safe as a child makes it.

- **Oregon Law**

- 40 pounds and must stay until 8 or 4'9"

- **Washington Law**

- 4 years old and stay in the booster until 4'9"

- **Illinois Law**

- Child under the age of 7 must use a child restraint

Only as safe as the child makes it!

Case Study 2: Behavioral Concerns

- Conventional limits
- Cannot modify
 - Families get creative!
- Adaptive car seat and vest options



Source: NHTSA

Case Study 2: Behavioral Concerns

- Merritt Manufacturing Roosevelt
 - 33 – 115 pounds, 62” tall
- Customizable adaptive car seat



Case Study 2: Behavioral Concerns

- EZ-ON Upright Vest
 - 31 – 168 pounds
 - XS – L, custom sizing available
- Vehicle limitations
- School bus



Source: EZ ON



Case Study 2: Behavioral Concerns

- Moving forward
 - Address current situation
 - Large medical seat
 - Vest
 - Work with behavioral therapist

Low Birth Weight and Premature Infants

- Low birth weight: <5.5 pounds
- Premature: <37 weeks gestation
 - Increased risk of apnea, bradycardia, and desaturations



Low Birth Weight

- Low birth weight: <5.5 pounds
- 4 pound minimum
 - 4 rear-facing only car seats start at 3 pounds!
- Lateral blanket support
 - Head inserts/body pads



Low Birth Weight



Evenflo LiteMax 35



Cosco Light n Comfy



Chicco KeyFit 30

Premature Infants

- Coffee straw airway
- Positional apnea
- Car Seat Tolerance Screening
 - Prematurity, cardiac complications, Down syndrome, etc.
 - Baby's car seat, angle of recline
 - 90 – 120 mins
 - Screening HR, RR, and O2 Saturations

Premature Infants

- Car Beds
 - Merritt Manufacturing Angel Ride
 - Dorel Dreamride
 - Merritt Manufacturing Hope



Low Birth Weight and Premature Infants

- How can you help a family prepare?
 - 4 lbs car seat
 - No extras
 - See or become a CPST



Source CPS Board

Low Birth Weight and Premature Infants

- Myth busters!
 - Seatbelt OR LATCH
 - Middle isn't necessary
 - Handles vary
 - All car seats sold in the US are safe

Hypotonia

- Cerebral Palsy, Down syndrome, global developmental delay, etc.
- Rear-face as long as possible
- Forward-face in a semi-reclined position
- Maintain airway, position hips/trunk, and support extremities

Hypotonia

- Come see a special needs trained CPST
- Conventional car safety seats
 - Graco Extend2Fit and Evenflo Titan 65/Sureride
- Use blankets
- Do not recline the vehicle seat



Hypotonia

- Large medical seats, adaptive boosters, and vests
 - Special needs trained CPST and/or PT/OT
 - Try before you buy
- Wheelchair transport



Source UMTRI

Large Medical Seats



Source: Merritt Manufacturing



Source: Inspired by Drive



Adaptive Boosters



Source: Etac



Source: Thomashilfen



Source: Merritt Manufacturing

Vests



Source: Merritt Manufacturing



Source: Besi Moore

You Determined a Need...What's Next?

- No-cost adaptive seating assessments
 - In-person, virtual, team work
- Providers can bill for products
- Oregon Health Plan
 - Denial
 - DD Services, K-Plan
 - CIIS

Funding

- Keep us updated!
- Non-profit grants
- Grants in the tribal communities?

State Resources

- **Oregon**

- Kyndra Lathim, OHSU Doernbecher Children's Hospital
 - 503-494-3735
 - lathim@ohsu.edu
- Randall Children's Hospital
 - 503-413-4005

- **Washington**

- **Idaho**

- Jen Ellis, St. Luke's Children's Hospital, Boise
 - 208-381-3033
 - childrenscarseatprogram@slhs.org



Questions?





Thank You