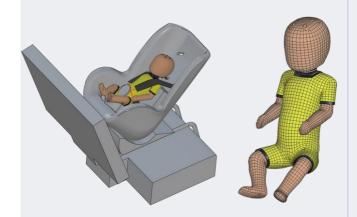
July 2022 HUMANETICS CAE UPDATES

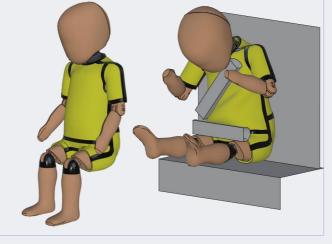
Q0 Child Dummy

- <u>Q0 Child Dummy</u> represents a six-week-old infant and is designed to evaluate child restraints for newborns
- Humanetics offers the <u>v1.0 FE Model</u> with head, neck and lumbar spine updates
- Validation load cases including frontal, lateral flexion and frontal extension for neck and lumbar spine
- The FE Model meets the stringent internal quality assurance requirements



Q1 Child Dummy

- <u>Q1 Child Dummy</u> is used to develop child restraint systems for one-year old children
- The latest <u>v1.1 FE Model</u> includes several geometry and model updates
- Physical dummy is represented in detail with improved mesh for head, neck, shoulder, ribcage, jacket, abdomen, arms and legs
- The FE Model is validated by means of head, neck and lumbar spine certification cases



Q1.5 Child Dummy

- <u>Q1.5 Child Dummy</u> represents 1.5 year-old child and is used in Latin and ASEAN NCAP
- The <u>v1.2 FE Model</u> consists of various geometrical improvements
- Head, neck and lumbar spine are validated with certification tests, abdomen is improved with new non-certification test
- Updated materials with state-of-the-art material formulation
- Verified robustness in sled level with ECE-R129 pulse



