	50th-percentile 6-year old child	5th-percentile adult female
Weight	47.3 pounds	102 pounds
Erect sitting height	25.4 inches	30.9 inches
Hip breadth (sitting)	8.4 inches	12.8 inches
Hip circumference (sitting)	23.9 inches	36.4 inches
Waist circumference (sitting)	20.8 inches	23.6 inches
Chest depth		7.5 inches
Chest circumference:		
(nipples)		30.5 inches
(upper)		29.8 inches
(lower)		26.6 inches

The test laboratory provided the anthorpomorphic dummies and the sled testing equipment. Details of the equipment can be found in UMTRI's test report (see report ML 9501-11, 16 January 1995).

Method

The general test procedures are summarized below as taken from the UMTRI report.

The simulated impact testing operates on a rebound principle. The "sled" (actually a seat fastened to a moveable test platform mounted on a track) is moved in a forward direction and then quickly reversed in order to simulate impact. The desired velocity change is achieved by reversing the sled's direction during the impact event. One of two different anthorpomorphic dummies (5th %ile adult female or 6-year-old child) was belted with an NHTSA 3-point belt anchor onto an FMVSS 213 standard seat with a fixed seat back facing forward in the left (driver's) seat position in the sled.

The crash pulse was trapezoidal in shape and was similar to that of a small automobile. Sled velocity was calculated by integrating the sled deceleration time-history. The peak deceleration as well as average Gs within the central 60% of the crash pulse were recorded. Frontal impact is simulated at a velocity of 30 mph and a peak acceleration of 23 G. Upon impact, measurements were taken for head and knee excursions, head peak resultant, head injury criterion, and chest resultant. The test data were digitized on-line and analyzed on an 80486 microcomputer. All test signals were filtered according to the requirements of SAE J-211, and signal output conformed to its recommended sign convention.