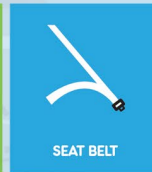


Child Passenger Safety on School Buses






NATIONAL TRAINING



Handout • Crash Dynamics and Occupant Restraint

STAGES OF A CRASH

Vehicle crash	Human crash	Internal crash
		
The vehicle crash causes the vehicle to crush and deform.	In the human crash, occupants collide with parts of the interior.	In the internal crash, internal organs are still moving toward the point of impact and collide with bone or other organs.



NOTES

TYPES OF CRASHES

FRONTAL



Image courtesy of the Iowa Pupil Transportation Association



Image courtesy Archbold Buckeye

REAR-END

SIDE, LATERAL, T-BONE



Image courtesy of the Iowa Pupil Transportation Association



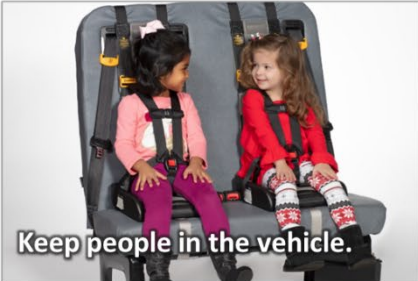
ROTATION/SPIN

ROLLOVER

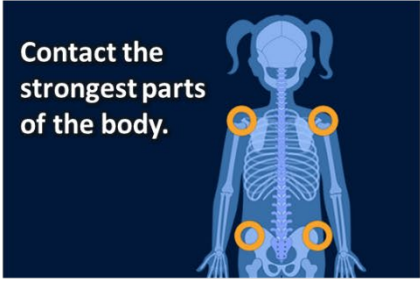


Image courtesy of Dean Transportation

BASIC PRINCIPLES OF OCCUPANT RESTRAINT



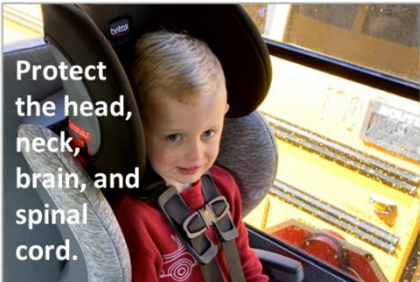
Keep people in the vehicle.



Contact the strongest parts of the body.



Spread crash forces over a wide area of the body.



Protect the head, neck, brain, and spinal cord.



Help the body to slow or "ride down" the crash forces.

Image courtesy of CChIPS and Injury Biomechanics Research Center (IBRC)

