Injury Due to Dynamic Environments

Suit Design
- Rigid suit elements
  - Body movement within the suit
    - Head movement within the helmet
  - Control of head and neck movement
  - Positioning of restraints on body/suit surfaces

Suit/Vehicle Interface
- Control of spinal alignment
  - Control of head and neck movement
  - Positioning of restraints on body/suit surfaces

Vehicle Design
- Restraint of movement in seat
  - Fit for specific body type
  - Position and/or posture

Requirements, Testing and Verification controls for dynamic environments
- Certification requirements for complex combinations of X, Y, and Z accelerations
- Certification requirements for dynamic loads
- Testing and verification analysis and tools to predict injuries

Provision of Crewmember Volume
- Energy attenuation system may stroke crewmember into vehicle surface
- Stowage of hardware
- Vehicle structural Integrity

Energy Attenuation