## **Risk for acute injury:**

The following risk factors (based on solid scientific research) help explain why some patients involved in Low Speed Rear Impact Collisions (LOSRIC) get injured and others do not. These risk factors are associated with the potential to develop acute pain after a LOSRIC. Other issues to consider include, change of velocity, G force, threshold of injury, vehicle mass, and examination findings.

- □ Female gender
- Weighing less than 130 lbs.
- □ History of neck injury
- □ Head restraint below head's center of gravity (males & females); large topset.
- □ History of CAD injury
- □ Poor head restraint geometry/tall occupant (e.g., \_80th percentile male)
- □ Rear vs. other vector impacts
- □ Use of seat belts/shoulder harness (i.e., standard three-point restraints)
- Body mass index/head neck index (i.e., decreased risk with increasing mass and neck size)
- □ Out-of-position occupant (e.g., leaning forward/slumped)
- □ Non-failure of seat back
- Having the head turned at impact
- □ Non-awareness of impending impact
- □ Increasing age (i.e., middle age and beyond)
- □ Front vs. rear seat position
- □ Impact by vehicle of greater mass (i.e., \_25% greater)
- Crash speed under 10 mph
- **Rear Struck Occupant**, when bullet vehicle has longitudinally mounted motor
- Other issues: DMX Findings, PT Age and the life expectancy chart for future meds, ROM good predictor of pain and disability, muscle strength or imbalance, military spine / reverse curvature, length of time after the accident pt was first seen, symptoms that come and go

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