



Acute Spinal Injury: Evaluation, Care, and Long Term Considerations

Joe G. Gonzales, MD, FAAPMR

August 18, 2017

Joe G. Gonzales MD, FAAPMR, CLCP, CPLCP

- Board Certified Physical Medicine & Rehabilitation, Pain Medicine, and Occupational and Environmental Medicine
- Certified Life Care Planner (CLCP), and Certified Physician Life Care Planner (CPLCP) with 25+ Years of Life Care Planning Experience
- Founder of the Texas Physical Medicine & Rehabilitation Institute, San Antonio, TX
- Founder & Medical Director of Physician Life Care Planning, LLC
- Chairman of the American Academy of Physician Life Care Planners

“The Crash”

Common Types of Accidents

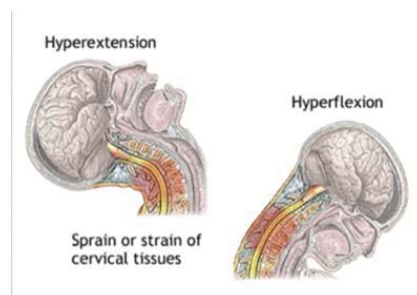
1. Rear-end collision (whiplash)
2. Side-impact collision (T-bone)
3. Side-swipe collision (lateral flexion)
4. Vehicular rollover (multiple injuries)
5. Head-on collision (Often fatalities)
6. Multiple vehicle collision (Pile-ups)



Mechanisms

Common Mechanisms of Injury:

1. Axial Compression
2. Flexion/Hyperflexion
3. Extension/Hyperextension
4. Rotation
5. Lateral flexion/hyperflexion
6. Distraction
7. Penetration



Common Car Crash Injuries

1. Head and brain injury
2. Spinal injury
 - a. Cervical, thoracic, lumbar, sacrococcygeal
 - b. Spinal cord
3. Chest, abdominal, arm, leg, and pelvic injuries
4. Psychological trauma
5. Special considerations, e.g. impact on age and comorbidities



Overview of Spinal Anatomy



[illegible]

- © Copyright 2017 – Physician Life Care Planning, LLC

The figure contains four anatomical diagrams of vertebrae, labeled T1, T2, T6, and T12, showing different views and highlighting specific features.

- T1 vertebra: superior view** (top left): Shows the superior surface of the T1 vertebra. Labels include: Vertebral foramen, Body, Superior vertebral notch (forms base of superior articular process), Pedicle, Angle of articular facet, Transverse costal for (in), Spinous process, and Superior articular facet.
- T2 vertebra: lateral view** (top right): Shows the lateral view of the T2 vertebra. Labels include: Superior costal facet, Body, Superior articular process and facet, Inferior costal facet, Transverse process, Inferior articular process, Inferior vertebral notch, and Spinous process.
- T6 vertebra: superior view** (bottom left): Shows the superior surface of the T6 vertebra. Labels include: Vertebral canal, T6 rib, Superior articular process and facet, Spinous process of T6 vertebra, Transverse process of T6 vertebra, Inferior articular process (T6), and Spinous process (T6).
- T12 vertebra: lateral view** (bottom right): Shows the lateral view of the T12 vertebra. Labels include: Body, Superior articular process and facet, Transverse process, Costal facet, Inferior articular process and facet, and Spinous process.

T7, T8 and T9 vertebrae: posterior view

- ### The Car Crash Seminar

Find the full text of this and thousands of other resources from leading experts in dozens of legal practice areas in the [UT Law CLE eLibrary \(utcle.org/elibrary\)](http://utcle.org/elibrary)

Title search: Acute Spinal Evaluation, Care, and Long Term Considerations

Also available as part of the eCourse

[2017 The Car Crash eConference](#)

First appeared as part of the conference materials for the
2017 The Car Crash Seminar session

"Acute Spinal Evaluation, Care, and Long Term Considerations"