

# Cervical Trauma

## Crisis Management in Disaster Incidents.

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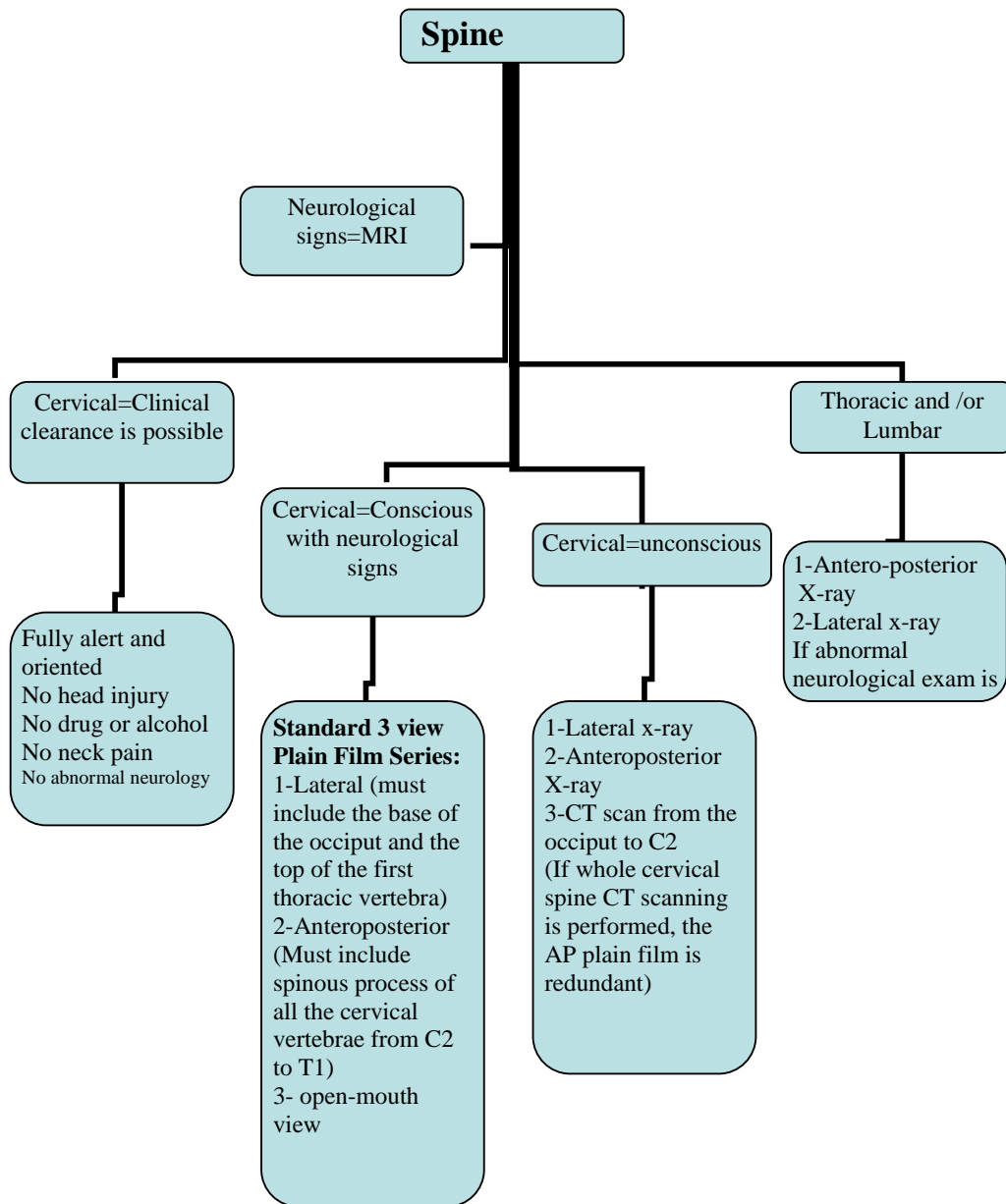
According to Shum (2006) medical and legal pitfalls with regard to cervical strain are generally straightforward, falling into the following general groupings:

- Failure to diagnose more severe causes of cervical spine injury
- Failure to prevent potential injury secondary to impairments caused by medications
- Failure to avoid medications that alter patient's sensorium, if the patient is unlikely to comply during convalescence
- Failure to recognize significant comorbid conditions (eg, pregnancy, other medical conditions).(2)

So in a case of spine injury one should ask who needs cervical spine radiographs; what views of the cervical spine should be obtained; when should flexion/extension radiographs, fluoroscopic radiographs, CT scans, or MRI scans be obtained; and how to demonstrate the absence of significant ligamentous injury in the comatose trauma.(3)

The extent of the effect of a traumatic event depends on both the mechanism of injury and biomechanics of the spine. For example, pediatric cervical spine leads to a different distribution of injuries and distinct radiographic features. Children younger than 9 years of age usually have upper cervical injuries, whereas older children, whose biomechanics more closely resemble those of adults, are prone to lower cervical injuries. Pediatric cervical injuries are more frequently ligamentous in nature, and children are also more prone to spinal cord injury without radiographic abnormality than adults are. (4)

The diagnosis of spine trauma can be achieved considering the following algorithm in mind. (1,5)



**Management:**

1- The mainstay of therapy is Non steroidal anti-inflammatory drugs (NSAIDs) and acetaminophen . Muscle relaxants may prove valuable when treating severe strain injuries to reduce pain and muscle contracture.

2-Further Outpatient Care: Follow-up with a primary care physician is strongly recommended in cervical strain injuries to facilitate further care. For patients involved in occupational injuries, appropriate referral for follow-up is particularly important.

3- Physical therapy should be encouraged early to reduce the risk of long-term loss of function due to lost range of motion.

4- Lifestyle measures:

- Avoidance of unusual postures (like painting overhead, sitting in the front row at the movies) for extended periods can prevent acute low-speed strain injuries.
- Avoidance of chronic straining (like using the neck to hold the telephone, other malposition syndromes) or repetitive motion of neck muscles and/or ergonomic planning and regular breaks can assist in avoiding a significant number of cervical strain injuries.

5-Patient Education:

- Patients should be taught about the dangers of noncompliance.
- Patients should be advised of the benefits of ice versus heat in acute injuries.
- Patient education in basic exercises can enhance mobility and minimize discomfort during the recovery period.
- Patients with markedly decreased range of motion or long-standing injury prior to presentation should be referred to a physical therapist to regain range of motion as well as strengthening cervical musculature.(2)

**References:**

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- 3-Marion D.(1998) **Major Practice Management Guidelines for Identifying Cervical Spine Injuries Following Trauma**. Eastern Association for the Surgery of Trauma.
- 4- Mccall T .(2006) **Cervical spine trauma in children: a review**. University of Utah
- 5- [www.guideline.gov/summary/summary.aspx?view\\_id=1&doc\\_id=8587](http://www.guideline.gov/summary/summary.aspx?view_id=1&doc_id=8587)