

Atlas fracture treatment

There are no universal [atlas fracture treatment guidelines](#) based on [level I](#) trials. Current treatment ranges from nonoperative to operative management depending on fracture-pattern and integrity of the surrounding ligaments. Furthermore, in the [elderly patients](#) these fractures present a unique dilemma due to preexisting comorbidities and contraindications to various treatment modalities. C1 fractures warrant greater recognition to provide optimal treatment to patients and minimize the risk for developing complications ¹⁾.

Surgical management may be difficult and challenging due to the anatomical relationship between the vertebrae and neurovascular structures.

Level III ²⁾

: for isolated [atlas fractures](#):

- Treatment is based on the [atlas fracture classification](#) and integrity of [transverse ligament of the atlas](#)
- if the [transverse ligament of the atlas](#) is intact: cervical immobilization alone
- if the [transverse ligament of the atlas](#) is disrupted: either (note: disruption of the TAL may be anatomic or physiologic)
 - a) [cervical immobilization](#) alone
 - b) or, surgical fixation and fusion

Nonoperative management

[Atlas fracture nonoperative management](#)

Surgery

see [Atlas fracture surgery](#).

¹⁾

Smith RM, Bhandutia AK, Jauregui JJ, Shasti M, Ludwig SC. Atlas Fractures: Diagnosis, Current Treatment Recommendations, and Implications for Elderly Patients. Clin Spine Surg. 2018 Aug;31(7):278-284. doi: 10.1097/BSD.0000000000000631. PMID: 29620588.

²⁾

Ryken TC, Aarabi B, Dhall SS, Gelb DE, Hurlbert RJ, Rozzelle CJ, Theodore N, Walters BC, Hadley MN. Management of isolated fractures of the atlas in adults. Neurosurgery. 2013; 72 Suppl 2:127-131

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