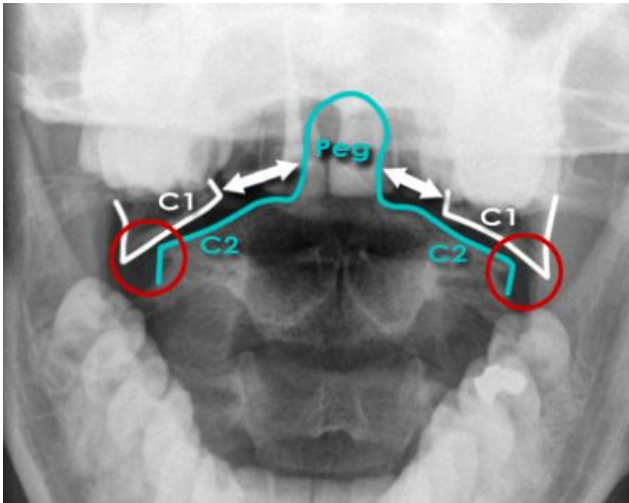


TRAUMA

CERVICAL SPINE INJURIES

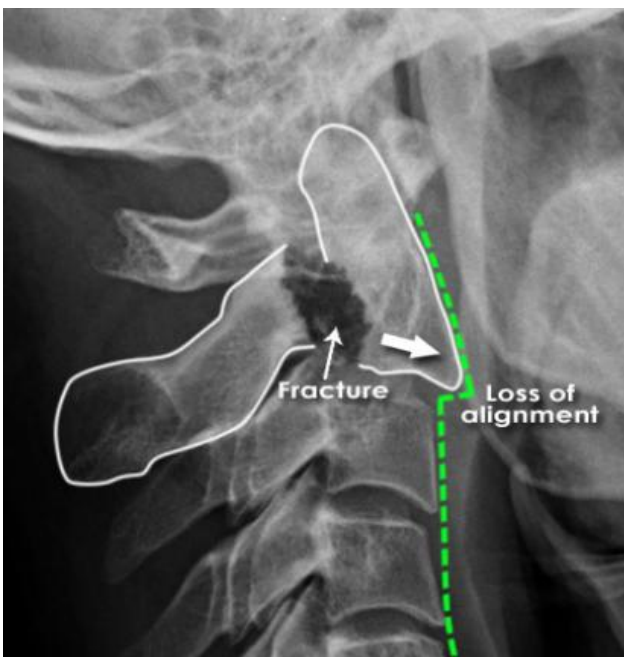
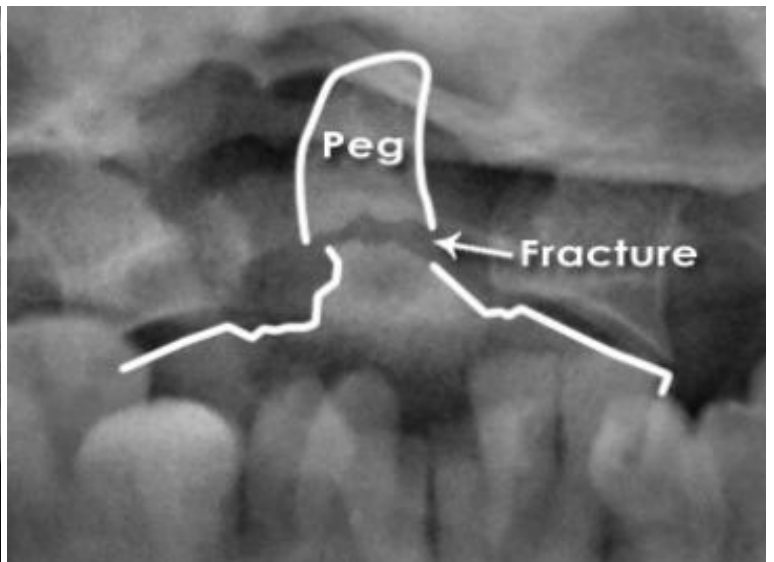
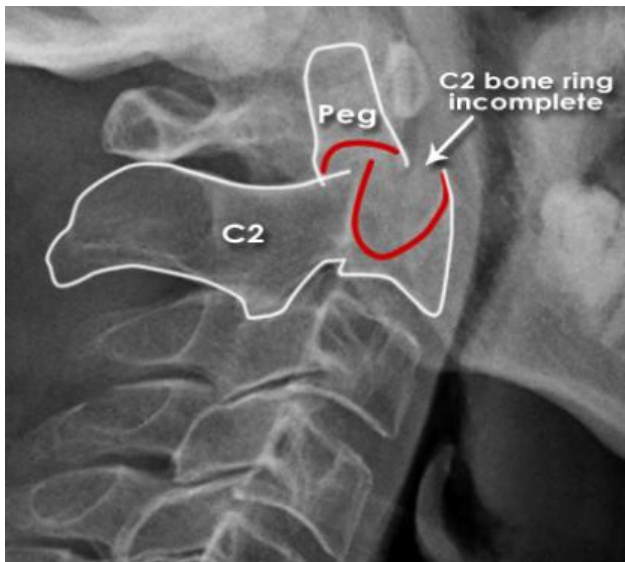


Left: Jefferson Fracture

Unstable burst # of C1 caused by axial load injury. The ring structure is disrupted and the spaces between the peg and the C1 lateral masses are widened. The lateral masses of C1 no longer align with those of C2.

Below: Odontoid Peg Fracture

Occurs due to hyperflexion (anterior displacement) or hyperextension (posterior displacement) injury.



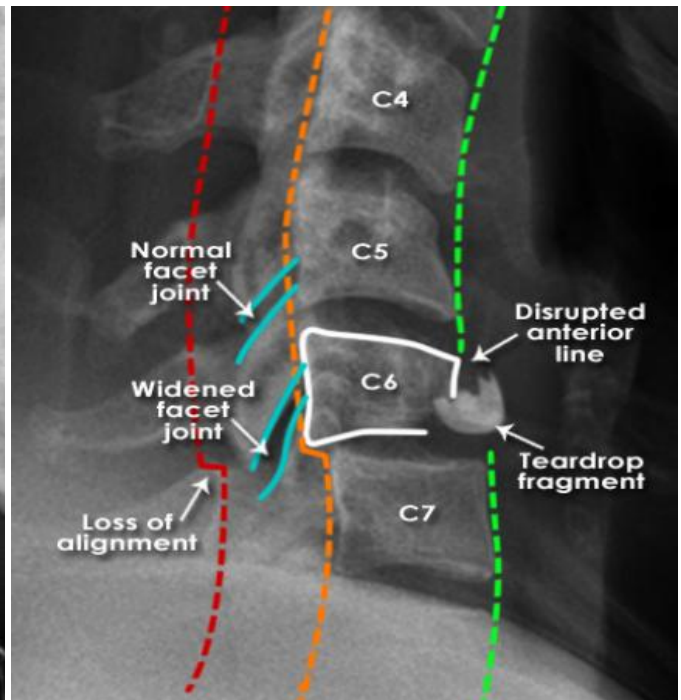
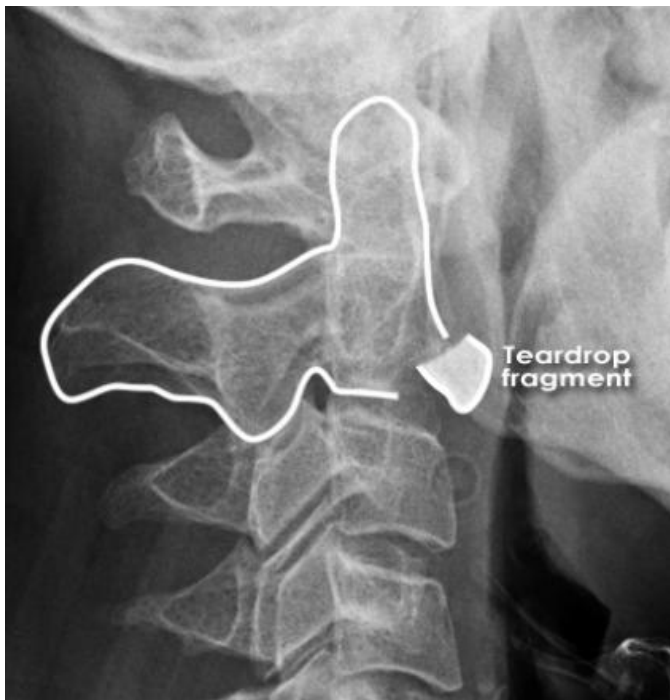
Left: Hangman Fracture

This is a fracture through both pedicles of C2 which results from a high force hyperextension injury, usually from a high speed RTA.

There is often anterior displacement of the body and odontoid peg of C2 which causes loss of alignment in the anterior vertebral line.

If the fracture extends to the transverse foramina a vertebral artery injury should be considered.

This is an unstable fracture.



Above left: extension teardrop fracture. Hyperextension results in avulsion of the anterior corner of the vertebral body, (usually C2) which remains attached to the anterior longitudinal ligament. Disruption of this ligament leads to instability.

Above right: flexion teardrop fracture. An unstable injury between C3-C7 due to flexion & compression (RTA deceleration, diving). There is fracture of the anterior corner of the vertebral body, posterior displacement above the level of the injury, spinous process widening and facet joint dislocation.

Below: bilateral perched facets. There is facet joint dislocation where the inferior articular processes appear to sit ("perch") on the superior articular processes of the vertebra below. It is caused by hyperflexion and is unstable. There is often anterolisthesis and spinous process widening.

