

Open mouth odontoid radiograph

The open mouth **odontoid** radiograph (x-ray) is used to assess for the presence of an **upper cervical spine** injury. Common injuries to the upper cervical spine include:

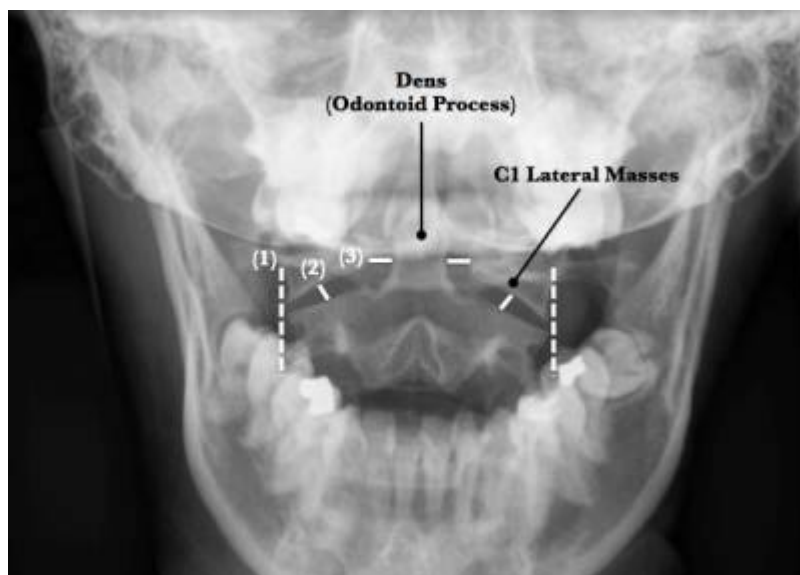
Dens Fracture (i.e., C2 **Odontoid Fracture**)

Jefferson's Fracture (i.e., C1 **Burst Fracture**)

Transverse Ligament Injury

Basilar Invagination

Being able to read and recognize common landmarks when interpreting an open mouth odontoid view is important in determining who has an unstable condition that may warrant more aggressive intervention.



Line 1

Make sure the lateral masses of C1 (atlas) do not hang over the lateral masses of C2 (axis).

The **rule of Spence** would suggest that if there is more than a combined (total of both sides) overhang of 6.9 mm or more of the lateral masses of C1 in relation to the C2 lateral masses then there is concern for an injury to the **transverse ligament** and an **MRI** should be done. While this radiographic rule can be used, it is important to recognize that it may not always correlate well and management decisions should not be made without first obtaining an MRI. Furthermore, an MRI is preferred over a CT scan, since the CT scan may not be able to show the maximal positions of displacement in the fractures.

Line 2

Make sure there is no asymmetry of the articular spaces between the **lateral masses** of C1 and the body of C2 (axis).

Line 3

Make sure there is no asymmetry of the articular spaces between the dens and the lateral masses of C1

From:
<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**

Permanent link:
https://neurosurgerywiki.com/wiki/doku.php?id=open_mouth_odontoid_radiograph

Last update: **2024/06/07 02:57**

