



Radiographic Techniques 2

lecture 8

**Cervico–thoracic projection and main skull
pathology, image interpretation of special
cases**

By

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Cervico-thoracic projections

- **Lateral swimmers'**

In all trauma radiography, it is imperative that all of the cervical vertebrae and the cervico-thoracic junction are demonstrated.

Position of patient and image receptor

- This projection is usually carried out with the patient supine on a trauma trolley. The trolley is positioned adjacent to the vertical Bucky, with the patient's median sagittal plane parallel with the receptor.
- The arm nearest the receptor is folded over the head, with the humerus as close to the trolley top as the patient can manage. The arm and shoulder nearest the X-ray tube are depressed as far as possible.
- The shoulders are now separated vertically.
- the line of the vertebrae should coincide with the middle of the receptor.
- This projection can also be undertaken with the patient erect, either standing or sitting or supine.

Direction and location of the X-ray beam

- The **collimated horizontal central ray is directed** to the midline of the image receptor **at a level** just above the shoulder remote from the receptor.

Essential image characteristics

- It is imperative to ensure that the C7/T1 junction has been included on the image.
- It is important to include an anatomical landmark within the image in order to count the vertebrae.

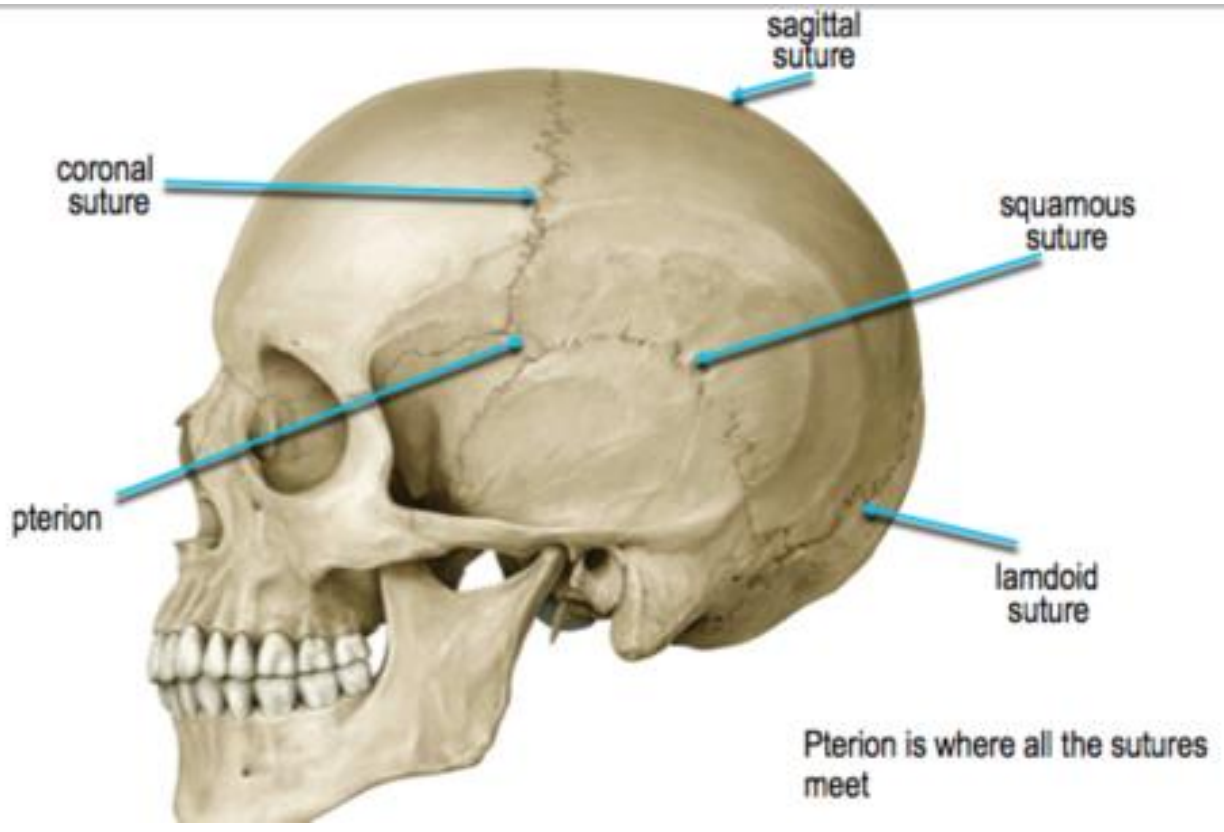
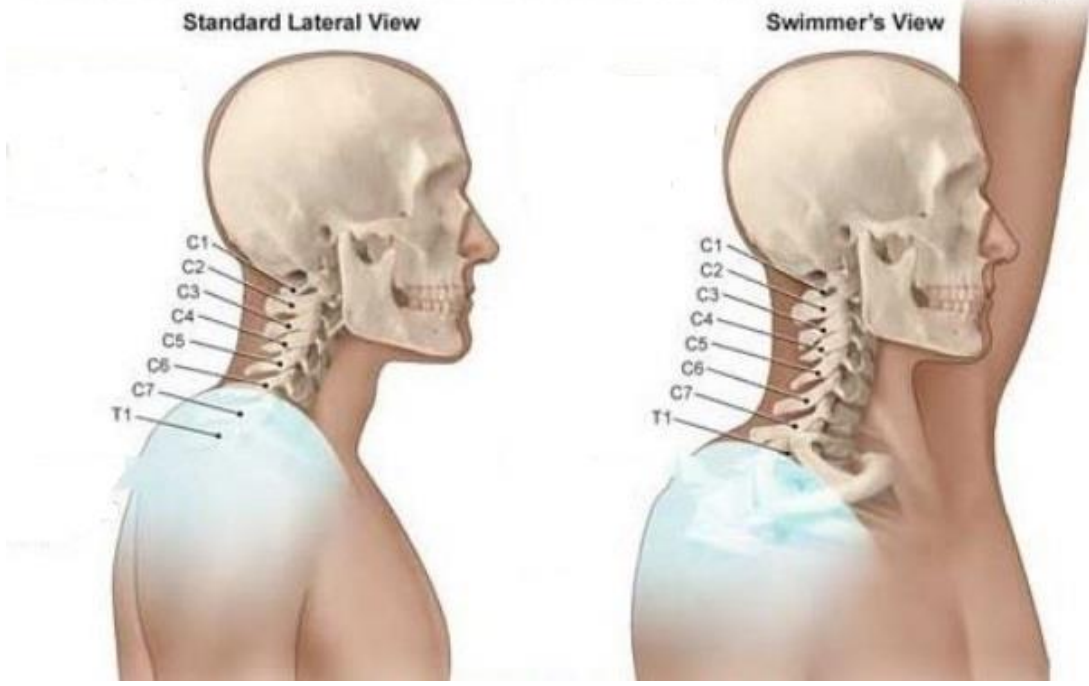
Common faults and solutions

- Failure to ensure that the raised arm is as flat as possible against the trolley may result in the head of the humerus obscuring the region of interest.

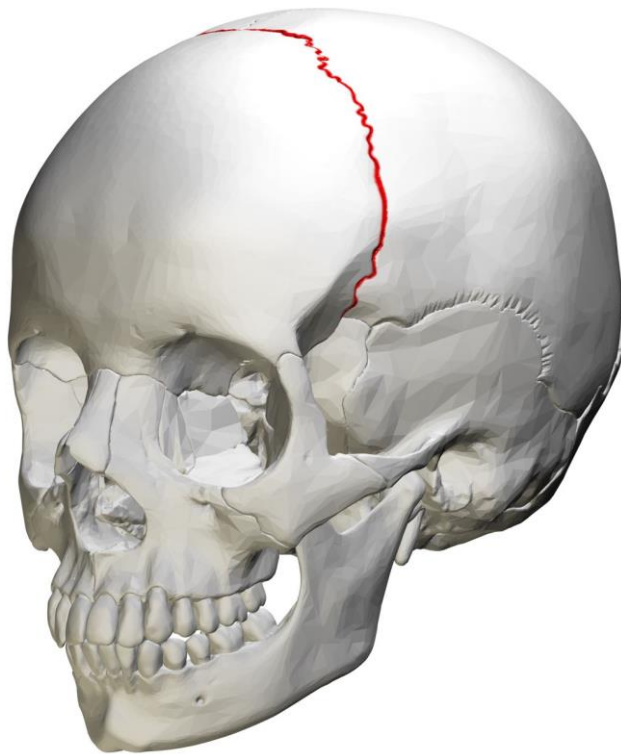
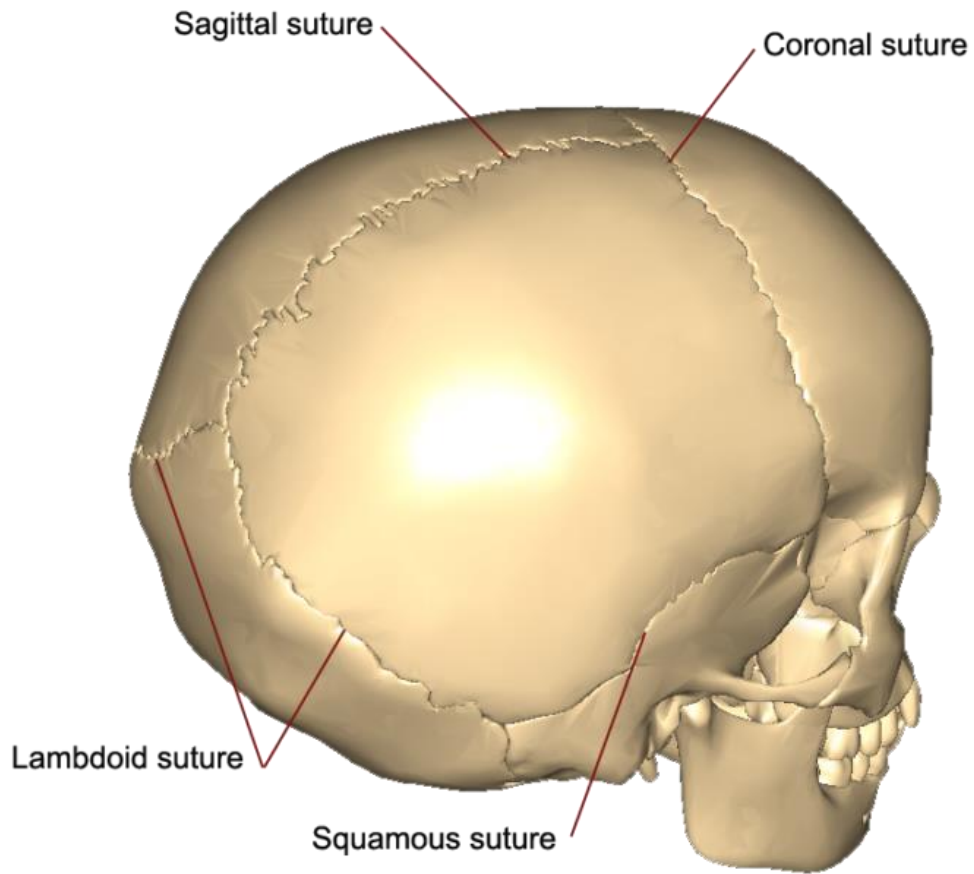


Lateral swimmers' of Cervico-thoracic

Standard Lateral View vs. Swimmer's View For Radiology



skull sutures



skull sutures



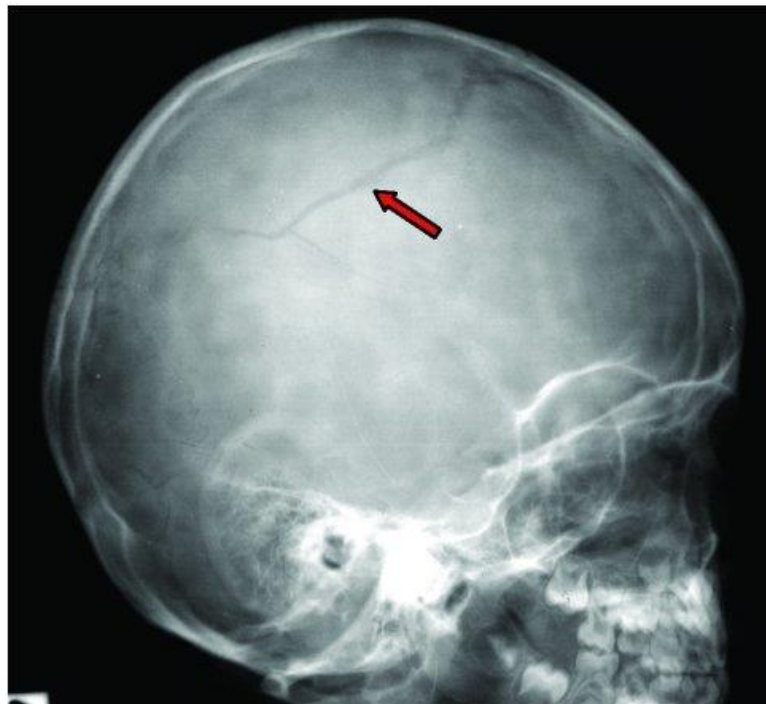
Lateral skull: 1 cm impression of the bone fragment into the skull is observed. The upper part of the parietal bone is impressed in an arch into the skull (arrow).



Depressed Skull Fracture



linear skull fracture



Linear right parietal skull fracture.