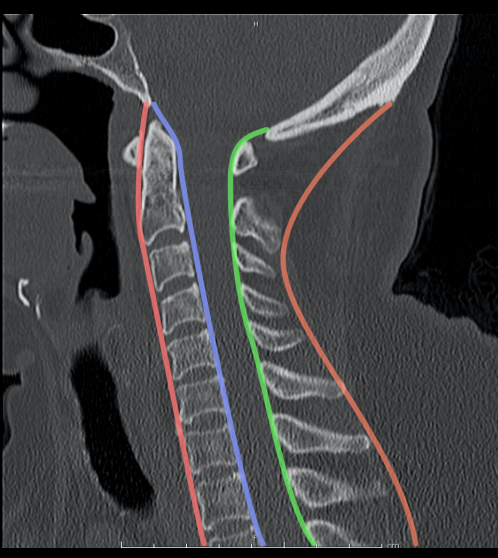


SEARCH PATTERN

CT Cervical Spine

1 Alignment

series: sagittal location: mid-sagittal window: bone



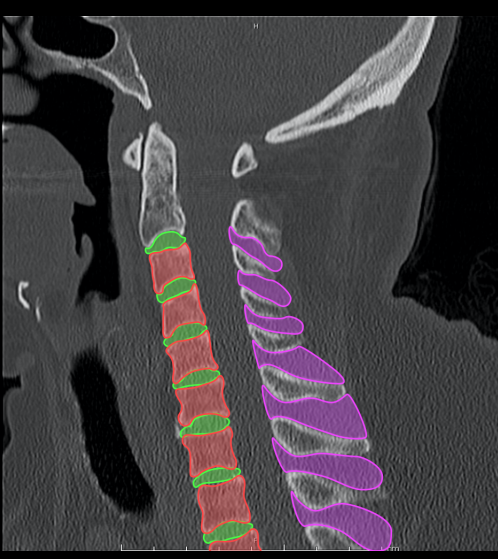
- Anterior vertebral line
- Posterior vertebral line
- Spinolaminar line
- Interspinous line

Q Look For:

Smooth lines. Curvature may be normal, abrupt angles may suggest fracture or dislocation.

2 Spacing

series: sagittal location: mid-sagittal window: bone



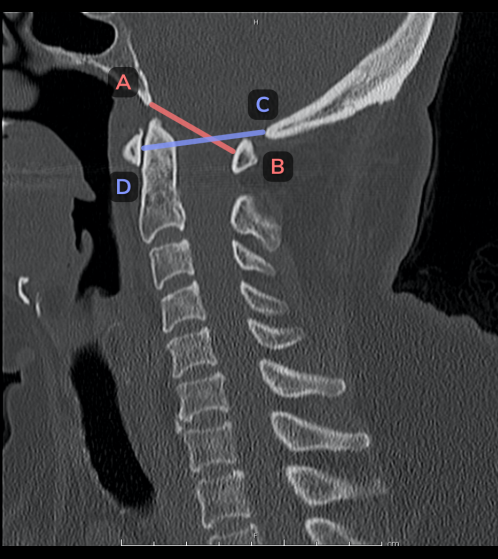
- Vertebral body
- Intervertebral disc
- Interspinous space

Q Look For:

Variance. Differences between vertebral body heights, disc height, etc.

3a Articulations: Craniocervical

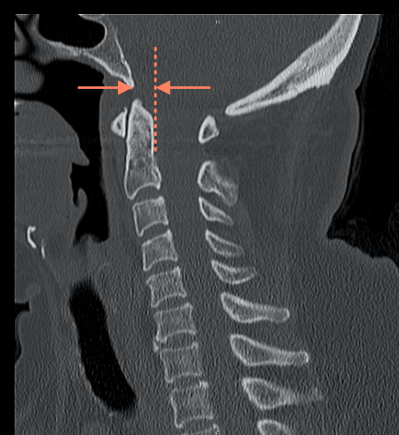
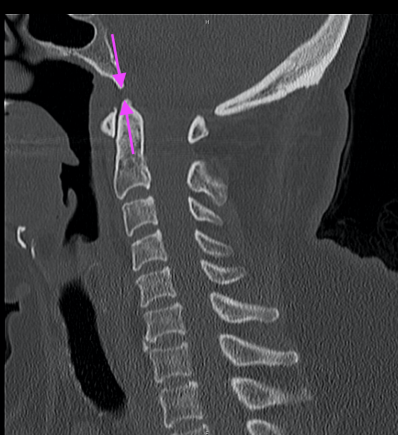
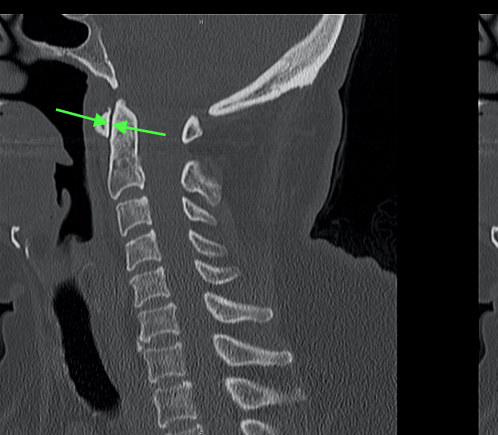
series: sagittal location: mid-sagittal window: bone



- Powers ratio: $AB/CD < 0.9$
- Atlantodental interval (ADI): $< 3\text{mm}$
- Basion-dens Interval (BDI): $< 10\text{mm}$
- Basion-axial interval (BAI): $< 12\text{mm}$

Q Look For:

Powers ratio. Consider a focused evaluation of the remaining distances if the Powers ratio is abnormal.



3b Articulations: Facets

series: sagittal location: paramedian window: bone



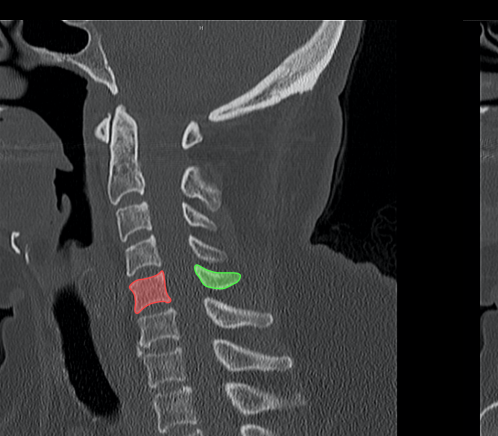
- Anterior articular pillar
- Posterior articular pillar
- Facet joints

Q Look For:

Congruent anterior and posterior pillar alignment. Spacing between the facet joints should be symmetric.

4a Fractures: Primary

series: sagittal window: bone

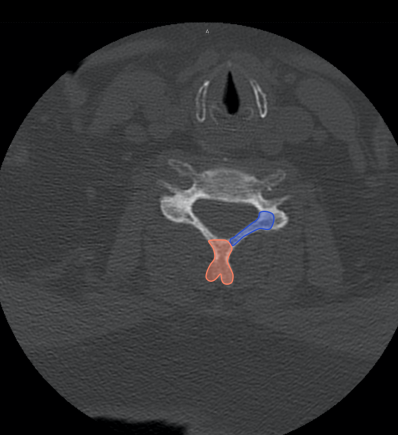
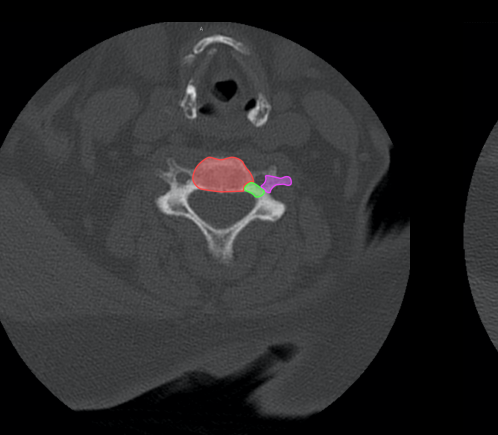


- Vertebral body
- Spinous process
- Pedicle/pillar

Q Look For:

Cortical disruption. Scan anterior column (body) then posterior column (spinous process), then paramedian (pedicle).

series: axial window: bone

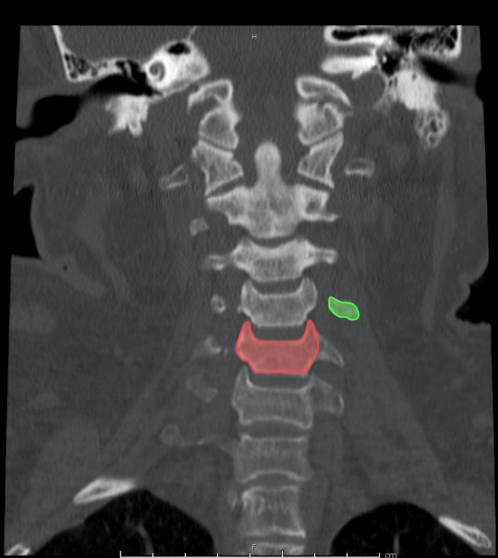


- Vertebral body
- Pedicle
- Transverse process
- Laminae
- Spinous process

Q Look For:

Continue the same pattern, scan anterior column, then posterior column.

series: coronal window: bone



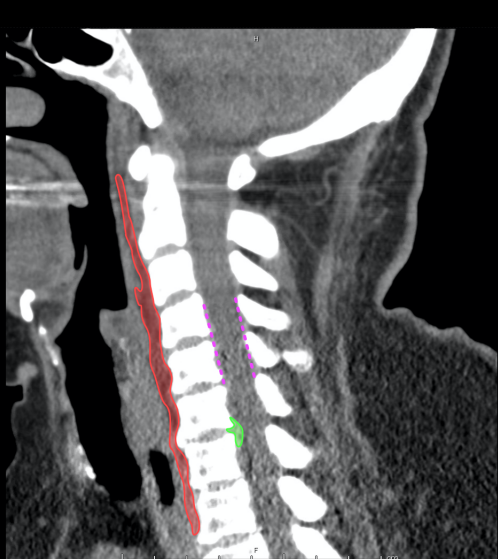
- Vertebral body
- Transverse process

Q Look For:

Pay special attention to craniocervical junction, atlantoaxial avulsion fractures may suggest ligamentous injury.

4b Fractures: Secondary

series: sagittal location: mid-sagittal window: soft-tissue



- Prevertebral space
- Intervertebral disc
- Spinal canal:
 $< 10\text{mm}$ (moderate)
 $< 5\text{mm}$ (severe)

Q Look For:

Prevertebral edema may help distinguish between osteophytes and avulsion fractures. Spinal canal stenosis may portend a higher risk of neurological symptoms.

series: axial window: soft-tissue



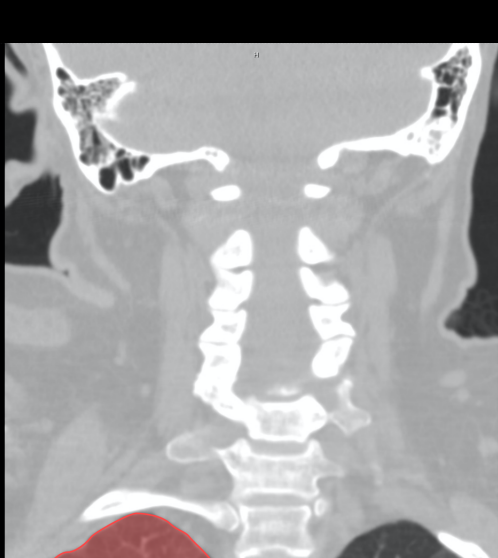
- Retropharyngeal space

Q Look For:

A convex shape (smiling face) is normal. A concave shape (frowning face) suggests fracture or ligamentous injury.

5 Lung Apices

series: coronal location: mid-coronal window: lung



- Lung

Q Look For:

Evaluate lung apex for pneumothorax.