Cervical Spine: AP Projection

Criteria for a Good Radiographic View

- Odontoid process, axis and atlas are clearly visible through the open mouth, occiput does not obscure the odontoid, atlantoaxial and atlanto-occipital articulations are clearly defined
- Cervical vertebrae 3–7 clearly visualized, superior and inferior vertebral plates linear
**Imaging Technique**

Image receiver (e.g., film): size 13 × 18 cm (5 × 7") (odontoid) and 18 × 24 cm (8 × 10") (cervical spine), portrait

Image receiver dosage (sensitivity class): ≤ 5 µGy (SC 400)

SID: 115 cm (40") or 150 cm (60")

Bucky: yes (r 12 [8])

Focal spot size: small (focal spot nominal value: ≤ 1.3)

Exposure: 65–75 kV, automatic, center cell

**Patient Preparation**

- Remove dentures, glasses
- Remove jewelry (necklace, earrings, hairpins)
- Open clothes (buttons, zipper)

**Positioning**

- Supine position
  - Atlas and odontoid process, AP
    - Head flexed until upper teeth (occlusal plane) and occipital bone are superimposed (head elevated 15° with sponge wedge)
    - Mouth wide open
  - Cervical spine, AP
    - Head reclined so that the line of the mental symphysis—lower border of the occipital bone (imaginary line: corner of the mouth—auditory meatus) is perpendicular to the horizontal plane of the film
    - Mouth closed
    - Gonads shielded (lead apron)

**Alignment**

Atlas and odontoid process of the axis, AP

- Projection: ventrodorsal, perpendicular to the film
- Central ray in midline at the level of the corners of the mouth

Cervical spine, AP

- Projection: 10–15° craniocaudal
- Central ray directed to the sternal notch and middle of the cassette
- Centering and collimation, side identification