Radiographic Procedures III (RAD 228)
Mandible and TMJ's

Mandible Routine

- Routine
  - Axiolateral oblique
  - PA (or PA axial)
- Special
  - Submentovertex
  - Panorex
Axiolateral Oblique Positioning

- Methods to minimize superimposition of opposite mandibular body:
  - Employ a combination of tilt on the head and CR angle not to exceed 25° (Example: Angle the CR 10° and add 15° of head tilt)
  - OR
  - Employ 25° cephalad angle toward the IR with no head tilt

Axiolateral Oblique

- Ramus:
  - 0° rotation
- General survey:
  - 10° - 15° rotation
- Body
  - 30° rotation
- Mentum
  - 45° rotation

Axiolateral Oblique

Head tilt and CR angle
- 25° only

25° only
Evaluation Criteria: Axiolateral Oblique

- Area of interest demonstrated
- Mandible not foreshortened
- Optimal exposure factors

Evaluation Criteria: PA Mandible

- Entire mandible included
- No rotation
- Optimal exposure factors

PA and PA Axial Mandible

- OML perpendicular to IR
- CR perpendicular, to exit at lips

Optional PA axial: CR 20°-25° cephalad to better visualize condyles (heads) and neck.
AP Axial Mandible

- OML or IOML perpendicular to IR
- CR 35° (OML)-42° (IOML) caudad
- CR centered to glabella

Evaluation Criteria: AP Axial Mandible

- Condyloid processes demonstrated and symmetric
- No rotation
- Optimal exposure factors

SMV Projection
Evaluation Criteria: SMV Mandible

- Entire mandible demonstrated
- No rotation or tilt
- Optimal exposure factors

Panorex

IOML parallel to floor

Evaluation Criteria: Panorex

- Entire mandible and all teeth demonstrated
- No rotation or tilt
- Optimal exposure factors
Temporomandibular Joint (TMJ)

Synovial, diarthrodial (freely movable)

TMJ Movement

Open mouth

Closed mouth

TMJ Routine

• Routine
  ➢ AP axial (modified Towne)
  ➢ Axiolateral 15° oblique (modified Law)
  ➢ Axiolateral (Schuller)
AP Axial (Modified Towne)

- OML perpendicular to IR
- CR angled 35° caudad
- CR level of TMJ (2 in [5 cm] anterior to EAM)

Evaluation Criteria: AP Axial TMJ

- Condyloid processes and TM fossa demonstrated
- No rotation
- Optimal exposure factors

Axiolateral Oblique (Modified Law Method)

- Rotate skull 15° toward IR
- CR 1½ in (4 cm) superior to upside EAM
- CR angled 15° caudad
Evaluation Criteria: Axiolateral Oblique

- TMJ closest to IR demonstrated
- Open and closed mouth projections
- Optimal exposure factors

Axiolateral TMJ (Schuller Method)

- True lateral (in open and closed mouth positions)
- CR angled 25°-30° caudad
- CR enters ½ in (1.3 cm) anterior and 2 in (5 cm) superior to upside EAM

Evaluation Criteria: Axiolateral (Schuller)

- TMJ closest to IR demonstrated
- Open and closed mouth projections
- Optimal exposure factors