

**Bryan Radiology Associates
CT neck parathyroid W/WO
("4D CT")**

Last update: 2021-01-03 JN

Setup:

1. Tape vitamin E pill (not BB) on right side of neck.
2. Supine, Lateral scout from angle of mandible to carina
3. Patient Positioning:
 - Retract shoulders as much as possible, caudally and posteriorly (put rolled towel between scapulae) and tilt the patient's head so that a line connecting the lateral canthus of the eye and the EAC is perpendicular to the CT tabletop

DFOV: Preferred 20 cm (Range 17-24 cm)

Range:

- 1) Noncontrast scan: top of hyoid bone to bottom of clavicular heads (fig 1).
- 2) Post contrast scans: angle of mandible to bottom of carina.

Contrast:

Through 20 gauge IV, inject 120 ml of 300-370 mg/ml non-ionic contrast @ a rate of 4 ml/sec, followed by 25 mL saline chaser.

Scan:

- 1) Noncontrast scan
- 2) Arterial phase : 25 second post contrast scan
- 3) Delayed phase: 80 second post contrast scan

Scan parameters (for all 3 phases)

(this is for GE, may need adjusting for Siemens):

- 1) Section thickness: 0.625 mm
- 2) Tube rotation time: 0.4 sec
- 3) Pitch factor: 0.516:1
- 4) FOV: 20 cm
- 5) 120 kVp
- 6) Automatic tube current modulation (mA modulation)
- 7) Noise index: 8
- 8) Minimum 100 mA
- 9) Maximum: noncontrast: 400 mA; arterial: 600 mA; delayed: 400 mA

PACS Series:

- topogram

- 2 x 2 mm AX Soft Tissue noncontrast
- 2 x 2 mm AX Soft Tissue arterial phase
- 2 x 2 mm AX Soft Tissue delayed phase
- 2 x 2 mm COR Soft Tissue arterial phase
- 2 x 2 mm COR Soft Tissue delayed phase
- 2 x 2 mm SAG Soft Tissue arterial phase
- 2 x 2 mm SAG Soft Tissue delayed phase



Fig 1: hyoid bone