## Virtual Implant Positioning

## **Preferred CT Data Specifications: Shoulder**

Scan Protocol: CT shoulder without contrast; transfer DICOM to CD or upload directly to the facility's admin account.

- The Virtual Implant Positioning™ (VIP™) system uses only the thin axial images
- The medial and inferior borders of the scapula must be included in the scan
- Arthrograms will not be accepted
- Reformatted images will not be accepted
- Standard or soft-tissue filter/algorithm preferred
- Start the CT scan several slices above the AC joint and include the entire scapula and proximal third of the humerus
- If the patient has any metal implants on the contralateral side, position the arm above the patient's head to minimize metal artifacts in the scan
- If the patient has metal on the affected side, use the appropriate metal artifact reduction algorithm per the manufacturer

To minimize the number of rejections due to incompatible or inadequate imaging, Arthrex reserves the right to reject CT scans that have one or more parameters outside the recommendations below.

CT scans will be accepted for VIP preoperative planning for up to 6 months from the date of the scan.

## Recommended CT Settings

Patient Position	Shoulder: Supine, arms at sides with shoulders in neutral rotation, shoulder centered in gantry
Slice Thickness	≤1 mm; minimum 0.2 mm; preferable 0.6 mm
Reconstruction Interval (collimation, scan spacing)	≤1 mm; preferably less
Acquisition	Spiral or helical mode
Field of View (FOV)	Start the CT scan several slices above the AC joint and include the entire scapula and proximal third of the humerus, using the smallest FOV possible
Span Spacing	Contiguous slices
Pitch	<1
Gantry Angle	0° (no tilt)
Reconstruction Filter/Algorithm	Standard or Soft Tissue (not smooth, not sharp, not bone, not detail) No contrast (arthrograms NOT acceptable) Raw DICOM (grayscale only; no formatting)
Scan Strength (kVp)	140 kVp if available; otherwise, 120 kVp
Dose Modulation (mA)	300 mA with dose modulation; if modulation is not available, then 200 mA or higher depending on patient size

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Specifications for CT Scan Data Acquisition
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