Shoulder CT Scan Protocol

restor3d

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1 Recommended Parameters

Scan Mode	Multidetector CT (MDCT) and Cone-Beam CT (CBCT) are acceptable.
Reconstruction Algorithm/Kernel	Metal artifact reduction/suppression (MAR) preferred Bone Reconstruction if available Soft Tissue or Standard algorithms are acceptable
Contrast Agent	No contrast agent is acceptable. No arthrograms.
Field of View (mm)	250-320
Matrix	512 x 512
Slice Thickness (mm)	≤ 1.00
Slice Increment	≤ 1.00
Kilovoltage peak (kVP)	100-140
Tube Current (mA)	Auto
Exposure Time (ms)	≤ 1000
Pitch	≤1.0 for helical
Gantry Tilt	0°
File Format	Uncompressed Digital Imaging and Communications in Medicine (DICOM)
Study Description DICOM Tag	“restor3d shoulder protocol”
Axial Series Description	AX Thins [slice thickness]
Coronal Series Description	COR Thins [slice thickness]
Sagittal Series Description	SAG Thins [slice thickness]

2 Patient Position

- Place the patient’s humerus along their trunk with the arm in a neutral position and thumb pointing anterior. If the patient is unable to be positioned with the humerus along their trunk in neutral position, they can bend at the elbow placing their hand across their abdomen.
- Do not allow patient movement between or during scans. If patient motion occurs, the scan must be restarted. Image distortion from patient motion can severely compromise the integrity of the reconstructed model.

Preferred

Alternative

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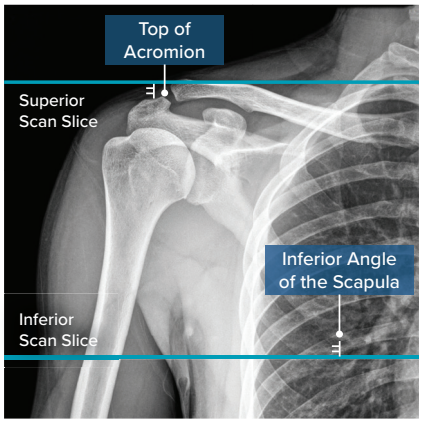
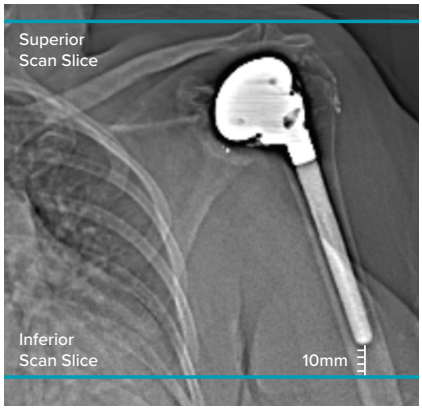
3 Scanning Instructions

- Start scan above the acromion and stop a few slices below the inferior angle of the scapula or 10cm below an existing implant when possible. Two views preferred with axial as the primary and coronal or sagittal as the secondary. Ensure the anatomy maintains the same position for all scans.
- Must include the entire scapula.
- No contrast agent is to be used. No arthrograms.

Other Recommendations:

- Do not scan at larger slice spacing and reconstruct to smaller increments.
- Provide images in the original scanning plane (axial, coronal, or sagittal images). There should be no secondary reconstructions or reformatting (including but not limited to iterative reconstruction, re-orientation, or re-slicing).
- Minimum of one scan must be provided:
  - If a patient has an existing implant (metal or cement) and one reconstruction is provided, metal artifact reduction/suppression (MAR) must be applied.
  - If scanning machine does not offer MAR, increase kVP to 140.
  - If multiple reconstructions are provided, we strongly recommend one reconstruction have MAR applied.
- If the shoulder contains existing hardware, it can be scanned with the parameters listed above.
- The implant must be used within 6 months of the CT study date. If the patient's anatomy has changed significantly since the time of the CT scan, the implant should not be used, even if the time period of 6 months has not expired.





4 Submitting a Scan / Image Data Transfer

Login to r3id.restor3d.com

An account may be requested via the login screen by clicking the "request access to r3id."

Create a case

Required case information includes physician information, affected anatomy, laterality, surgical procedure or device, and patient information

Upload CT scan

Only DICOM files will be accepted.

Visit https://www.restor3d.com/imaging/ or contact patientspecific@restor3d.com for other patient scan sharing options

restor3d Imaging Help

Phone: (781) 345-9170 E-mail: imaging-support@restor3d.com Imaging support is available Monday-Friday 8:00am - 4:00pm ET

LBL-70069 REV 00 MAR 2025