


CT Scan Protocol

Elbow

The CT scan quality is critical to the production of accurate personalized implants and patient-specific guides. Deviations from this protocol may result in an unusable scan and delay of surgery. Please contact Meticuly team for further clarification.

Scanning Parameters

Region of interest	Elbow (Radius-Ulna-Humerus) from distal humerus to 3-5cm below radius tuberosity	
Body side	both left and right arms (i.e. normal and fractured sides)	
Matrix size	512 x 512	
Voxel size	0.3 – 0.5 mm	
Slice thickness	0.625 mm or smaller	
Feed per rotation	0.625 mm or smaller	
Pitch	1 or less	
Reconstructed slice increment	0.3 mm	
Reconstruction algorithm	Bone / Details	
Export File	DICOM	
File Format	Uncompressed standard	

CT Scanning Instruction

- Helical (spiral) scanning mode is preferred for CT image acquisition. A conventional CT can be used if minimum requirements stated above could be fulfilled.
- The patient's elbow should be positioned with neutral rotation.
- Both left and right sides should be scanned with approximately the same setting
- Images scanned with no gantry tilt and no oblique reconstruction (i.e. use only primary axial images). No reformatting into coronal or sagittal planes.
- All slices must have the same field of view, reconstruction center, and table height.
- Scan with the same slice spacing, less than or equal to the slice thickness.
- Use the smallest field of view possible to capture the whole regions of the required bones. Capturing all soft tissue is unnecessary, only the bony regions are of interest.
- Scan quality with clear bony edges and details

Data Transfer

- Provide the complete data set of raw/original DICOM images to the surgeon
- Do not erase patient name and ID. Data will be anonymized by Meticuly on receipt of the data, after cross-check with prescription of the surgeon to ensure the images of the right patient are provided.