


CT Scan Protocol

Wrist

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	From carpometacarpal joint to at least 5 cm below fractured site or tumour-affected region.	
Body side	Both left and right wrists	
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
- Both wrists could be CT scanned with a single acquisition. If possible, try to position patient's wrists as close together as possible to fit into the FOV and with patient's palms facing each other in the neutral position. If CT scans of left and right sides are taken separately, both scans should be done with approximately the same setting.
- In case of bone tumour treatment, additional MR imaging is also requested (optional) to allow the pre-operative planning of the resection around the tumour.
- 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 (i.e. distal radius and ulna head) 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.