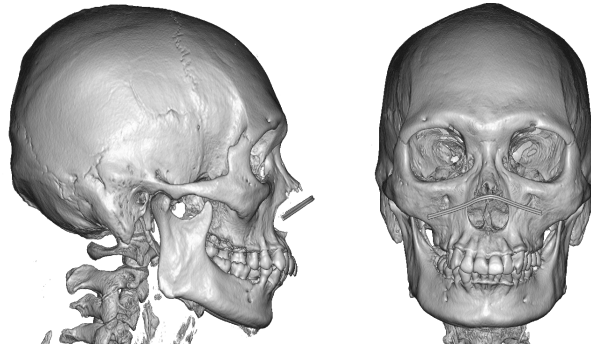


Meticuly Patient-specific medical solutions are designed using the CT scan of the patient. Good scan data is crucial to the design and manufacture of a high-quality implant. Deviations from this protocol may result in an unusable scan and delay of surgery. Please carefully review and follow the instructions before proceeding with the CT scan protocol and contact the Meticuly team for further clarification

Region of Interest

- For crano-maxillofacial defects, the scan area should include the entire skull.
- The Field of View (FOV) should extend from the cranium to the mandible bone, including skin and soft tissue.



Scanning Parameters

Sliced Thickness:

Less than or equal to 0.625 mm in axial plane

Voxel Size:

0.3 – 0.5 mm

Image Type:

Bone Window - Non-Contrast

Export File:

DICOM and Uncompressed Standard

Pitch:

1 or Less

Reconstructed Slice Increment:

Less than Sliced Thickness

Reconstruction Algorithm:

Bones/ Details

Gantry Tilt Angle:

Not allowed for Medical CT scan (Gantry Tilt 0°)

Scanning Instruction

- **The primary image plane is axial plane.**
- **Scan must be less than 3 months old. (Less than 1 month old for tumor case)**
- Helical (spiral) scanning mode is preferred for CT image acquisition.
- Capture the complete crano-maxillofacial region including mandible with condyle, orbital floor, maxilla, zygoma, nose, chin, and cranium bone.
- Align the patient in a way that prevents as many artifacts as possible and do not deform the soft tissue.
- No patient movement or If the patient moves during the scan, it must be repeated.
- 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.
- Minimize the artifacts caused by metallic dental restorations or orthodontic brackets by aligning the patient's occlusal plane as much as possible with the axial slices.
- Images scanned with no gantry tilt and no oblique reconstruction (i.e. use only primary axial images). No reformatting into coronal or sagittal planes.

Data Transfer

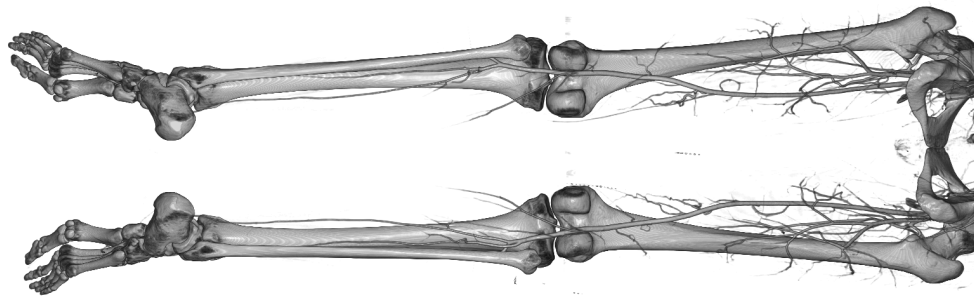
- Provide the complete data set of raw/original DICOM images to the surgeon or Meticuly representatives.
- Could be transferred by physical or digital devices.
- Data will be anonymized by Meticuly on receipt of the data, after cross-check with prescription of the surgeon to ensure the all indexed images of the right patient are provided.

Meticuly Patient-specific medical solutions are designed using the CT scan of the patient. Good scan data is crucial to the design and manufacture of high-quality design solutions. Deviations from this protocol may result in an unusable scan and delay of surgery. Please carefully review and follow the instructions before proceeding with the CT scan protocol and contact the Meticuly team for further clarification.

*** This CT scan protocol shall be used for the medical solutions which are planned for maxillofacial reconstruction using the fibula free flap only.**

Region of Interest

- Full legs or below femur condyle to talus bone
- Both sides or one side that followed the surgical plan.



Scanning Parameters

Sliced Thickness:	Less than or equal to 1.0 mm in axial plane
Voxel Size:	0.5 – 1.0 mm
Image Type:	CTA
Export File:	DICOM and Uncompressed Standard
Pitch:	1 or Less
Reconstructed Slice Increment:	Less than Sliced Thickness
Reconstruction Algorithm:	Standard / Soft tissue
Gantry Tilt Angle:	Not allowed for Medical CT scan (Gantry Tilt 0°)

Scanning Instruction

- **The primary image plane is axial plane.**
- **Scan must be less than 3 months old.**
- Helical (spiral) scanning mode is preferred for CT image acquisition.
- All slices must have the same field of view, reconstruction center, and table height.
- Images scanned with no gantry tilt and no oblique reconstruction (i.e. use only primary axial images). No reformatting into coronal or sagittal planes.
- Position the patient to maximize comfort and minimize motion. If possible, position the patient as follows: supine, feet first, patella pointing forward and the knees in maximal extension, toes pointing straight up.
- CTA was required to capture the necessary artery for a precise reconstruction plan. NCCT could be allowed under careful review from medical professionals.

Data Transfer

- Provide the complete data set of raw/original DICOM images to the surgeon or Meticuly representatives.
- Could be transferred by physical or digital devices.
- Data will be anonymized by Meticuly on receipt of the data, after cross-check with prescription of the surgeon to ensure the all indexed images of the right patient are provided.