

CT/CBCT scan protocol



for personalized solutions:

PS **model**
PS **implant**
PS **guide**

Application: **Cranio-Maxillofacial**

Patient-specific models are manufactured based on a CT/CBCT scan and on its quality depends the best accuracy of the 3D reconstruction. This protocol describes the guidelines for the CT/CBCT scan. Scan must be less than 4 months old.

CT / CBCT scan parameters

Use the following scan parameters or closest approximation

Matrix	512 x 512
Slice thickness	Max. 1.0 mm
Feed per rotation	1.0 mm
Pitch	1
Gantry tilt	0°
Reconstruction algorithm	High resolution / standard/ bone
Projection	Axial
Format	Uncompressed DICOM
Data storage	CD / DVD

Preparation of the patient

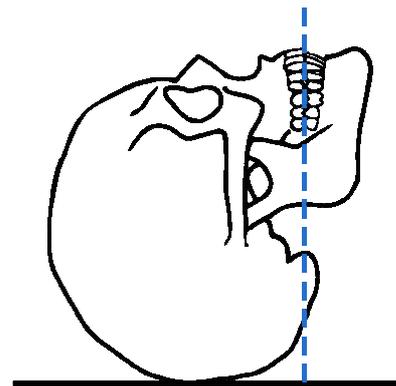
Before the scan remove non-fixed metal prosthesis, all jewellery and metal objects that might interfere with the region to be scanned. Non-metal prosthesis may be worn during the scan. Position the patient lying on the back, head in the direction to gantry. The patient may breathe normally but must not move during any part of the scanning sequence. Any other movement can cause motion artifacts that affects the quality of reconstructed images and rescanning would be required.

Patient positioning

Occlusal plane should be parallel to gantry. Do not use gantry tilt during scanning sequence. Images acquired with gantry tilt and the post-processed to reorient images are not acceptable.

Discuss the procedure with the patient. The patient must not move during any part of the scanning sequence. Please ensure that scans are free from motion artifacts.

Acquire scans at a high spatial resolution. Use the smallest field of view (FOV) as possible to capture all required patient's anatomy. Scan 2 cm above and below the region of interest.



Scanning and reconstruction of the images

Use the sharpest reconstruction algorithm available to get sharp images. Save the images in uncompressed standard DICOM format on a CD/DVD.

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