medartis
Scan Protocol
CMX Wrist and Forearm
CMX Ankle

CMX Creating More Experience.

This document provides details of how to perform scans for ordering a CMX APTUS CUSTOM-MADE DEVICE manufactured by Medartis.
For further information on this document, please contact us by email at:
CMX.SUPPORT@MEDARTIS.COM

General Information

- Custom-made devices are modeled based on the patient's anatomy at the time the scan is taken. The patient's scan should therefore have been taken within the last 4 months.
- Any changes to the anatomy between the time the CT scan was taken and the use of the custom-made device may result in an inadequate fit. If there are significant changes, the products may not be used. Before surgery, this fact should be once again checked by the clinic providing the treatment.
- The quality of the custom-made devices depends directly on the quality of the scan images. Therefore use the parameters defined in this document to ensure an optimum outcome. Any deviation from these specifications is the responsibility of the clinic providing the treatment and may lead to a rejection of the request.

Scan Guidelines

In order to guarantee optimal images for the design of your solution, the following points must be observed:
- Prevent artifacts by correctly aligning the patient and removing metal objects (removable prostheses, jewelry, etc.).
- Avoid patient movement during the scan. Repeat the scan if there is patient movement
- Scan all images in the same axial direction.
- Do not use gantry tilt, as this may result in poor image quality. If images are acquired with tilt, the tilt must be noted in the scan metadata.
- Select the field of view as small as possible but large enough to obtain all the information necessary for surgical planning. In certain cases, images of the soft tissue may also be required.
- The spatial resolution of the scan should not be greater than 1 mm.
- All axial sections must have the same field of view, the same reconstruction center, and the same table height.
- Please provide the scan data in DICOM format and upload them to the «CMX Portal».

Scan Parameter CT «Wrist and Forearm»
Use the following scan parameters or the options closest to them:

Parameter	Recommended Setting
Region of Interest	Elbow to the carpometacarpal joint. Bilateral.
Slice Thickness	0.625 mm
Slice Increment Reconstruction	Contiguous slices
Matrix	512 x 512
Gantry Tilt	0°
Reconstruction Algorithm	Bone or High Resolution
Accepted Data Format	Uncompressed DICOM
Accepted Media Formats	Uploaded as **.zip** file on the «CMX Portal», CD*, DVD* or USB-memory stick*

Scan Parameter CT «Ankle»
Use the following scan parameters or the options closest to them:

Parameter	Recommended Setting
Region of Interest	Foot and >10 cm above joint line. If possible, foot and ankle of both legs.
Position of Foot	Neutral (90°) to the leg
Slice Thickness	1.0 mm
Slice Increment Reconstructed	1.0 mm
Matrix	512 x 512
Gantry Tilt	0°
Reconstruction Algorithm	Bone or High Resolution
Accepted Data Format	Uncompressed DICOM
Accepted Media Formats	Uploaded as **.zip**-file on the «CMX Portal», CD*, DVD* or USB memory stick*

Scan Parameter CT «Knee»
Use the following scan parameters or the options closest to them:

Parameter	Recommended Setting
Region of Interest	5 cm distal to the knee and 5 cm proximal to the knee. If possible knees of both legs.
Slice Thickness	5 mm or smaller
Slice Increment Reconstruction	Contiguous slices
Matrix	512 x 512
Gantry Tilt	0°
Reconstruction Algorithm	Bone or High Resolution
Accepted Data Format	Uncompressed DICOM
Accepted Media Formats	Uploaded as **.zip**-file on the «CMX Portal», CD*, DVD* or USB memory stick*

Scan Parameter CT «Hip»
Use the following scan parameters or the options closest to them:

Parameter	Recommended Setting
Region of Interest	2 cm proximal to femur head and 10 cm distal to it. If possible hips of both legs.
Slice Thickness	5 mm or smaller
Slice Increment Reconstruction	Contiguous slices
Matrix	512 x 512
Gantry Tilt	0°
Reconstruction Algorithm	Bone or High Resolution
Accepted Data Format	Uncompressed DICOM
Accepted Media Formats	Uploaded as **.zip**-file on the «CMX Portal», CD*, DVD* or USB memory stick*

* Please take into account the additional time required when selecting these media formats. Depending on the shipping option and reliability, a delay of up to 4 days compared to the upload can be expected. Postal delivery is made to the address below with the reference «Attn. CMX».

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