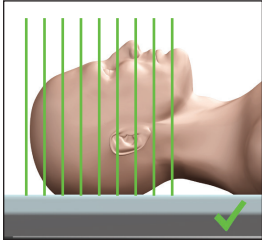


CMF customized implants (CI)

CT scan protocol

Phone: 855 479 5224

Email: CMFcustomizedimplants@stryker.com

Patient positioning	
Head alignment	Remain straight in neutral position.
Gantry tilt	0° gantry tilt.
	
No oblique angle of locator/survey lines. No gantry tilt (CT).	
Scan length/Field of view (FOV)	
Scan length	For cranial defects, encompass the entire skull , including at least 2 slices superior to the skull.
FOV	For mandibular defects, encompass the entire mandible. Select FOV to include all surrounding anatomy.
Scanning process	
Patient movement	Avoid patient motion. If the scan shows motion artifacts, the scan cannot be used.
Acquisition	
Slice thickness	Maximum = 1.5 mm (1 mm preferred)
Beam collimation	Width and detector configuration necessary to achieve actual slice thickness.
Table increment	Constant table increment, no gaps. Smaller than or equal to slice thickness.
Sequential scanners	No overlap and no gap.
Single-slice helical scanners	Beam pitch = 1
Multi-slice helical scanners	Beam pitch < 1 (GE: High Quality; Toshiba: Detail)
Slice orientation	Axial slice orientation.
Algorithm (Kernel)	Bone algorithm.
Warning: DO NOT post process to alter slice orientation or thickness.	
Data	
Series ID	All images of a scan should be stored in one series.
File format	DICOM format. No raw data. Cone beam (CBCT) scans accepted Do not compress. Contrast not required. Inclusion of CT Viewer not recommended.
No raw data	Archive only the relevant examination in uncompressed DICOM (CD-R preferred).
Data storage	Recommendation: Save raw data for at least 14 days after scan.
Guidance for pediatric scanning	
<p>Exposure to ionizing radiation is of particular concern in pediatric patients. Check if existing scans meets the requirements for Stryker implant design. To avoid rescanning of patients, follow the parameters given in the Stryker Scan Protocol and use reduced dose and child - sized protocols where appropriate. Stryker recommends consulting the instructions for use provided by your imaging device manufacturer, and limiting radiation dosage to the amount clinically necessary. Statutory national Diagnostic Reference Levels (DRLs) for pediatric as well as for adult CT examinations must be complied with. Limit the dose by reducing Tube Voltage (kV) and the Tube-Current-Time product (mAs), consider patient size and activate Tube Current Modulation and/or Automatic Exposure Control if applicable and indicated for pediatric patients.</p>	

Craniomaxillofacial

References

1. J Motherway, P Verschueren, G Perre, J Sloten, M Gilchrist. "The Mechanical Properties of Cranial Bone: The Effect of Loading Rate and Cranial Sampling Position".
2. InVibio Limited. PEEK-Optima Polymer Typical Material Properties Brochure.
3. Liu JK, Gotfried ON, Cole CD, Dougherty WR, Couldwell WT, "MEDPOR Porous Polyethylene implant for Cranioplasty and Skull Base Reconstruction" Neurosurgery. April 2004.

This document is intended solely for the use of healthcare professionals. A surgeon must always rely on his or her own professional clinical judgment when deciding whether to use a particular product when treating a particular patient. Stryker does not dispense medical advice and recommends that surgeons be trained in the use of any particular product before using it in surgery.

The information presented is intended to demonstrate a Stryker product. A surgeon must always refer to the package insert, product label and/or instructions for use, including the instructions for cleaning and sterilization (if applicable), before using any Stryker product. Products may not be available in all markets because product availability is subject to the regulatory and/or medical practices in individual markets.

Please contact your Stryker representative if you have questions about the availability of Stryker products in your area. Stryker Corporation or its divisions or other corporate affiliated entities own, use or have applied for the following trademarks or service marks: Cranial iD, iD Solutions, MEDPOR, Stryker, Stryker Orthopaedics. All other trademarks are trademarks of their respective owners or holders.

Stryker Craniomaxillofacial
 Kalamazoo, MI 49002 USA
 t: 269 389 5346,
 f: 877 648 7114
 toll free: 800 962 6558

stryker.com/cmf

CMF-EM-123_Rev. 1_27593
 Copyright © 2019 Stryker
 Printed in USA