# stryker

## TMJ Concepts CT Scanning protocol

Consult with Stryker regarding cone beam scanning parameters. This protocol is to ensure that accurate 3-D bone models can be created and used for the design and manufacture of patient-fitted temporomandibular joint prostheses.

Please review the following information before proceeding with the scanning process. If you have any questions, contact Stryker at CMFCustomizedImplants@Stryker.com (855 479 5224) prior to scanning the patient.

#### Pre-scan checklist

- Remove any jewelry that is in the scan area.
- Avoid patient motion. If the scan shows motion artifacts, the scan cannot be used. It is extremely important that the patient does not move or swallow during the scanning process.
- Position the patient so that he/she lay supine.
- Patient should be scanned in good occlusion when possible. Patients that cannot achieve a good occlusal position should be scanned with a bite jig or other apparatus to stabilize and separate the teeth. If there is any question regarding what is appropriate, please contact the ordering surgeon.

#### Procedure

- Please instruct the patient not to swallow during the scan.
- Take a scout view and locate the first slice position. Make sure the head is positioned symmetrically so the left and right TMJ are parallel.
- Start the scan so that it includes both the sella and nasion. Be sure that both inferior orbital borders and EAC's are included. Scan through the tip of the chin.
- The maximum slice thickness is 1mm. Please provide the thinnest slices possible. If your standard scanning parameters are .5mm, .625mm or .75mm slice intervals, please provide the greatest level of detail scan.
- Do not reformat axial slice data into a different slice interval.
- Only axial image data is required. If possible, retain the raw CT data until the scan has been reviewed by Stryker.
- Data should be archived in an uncompressed DICOM format using a standard-type algorithm. Do not use a Detail or Bone algorithm. Preferred algorithms for common scanners are shown in the table at the right.
- Upload DICOM data on to the iD Portal website (fit.stryker.com) to initiate the case.

### Helical scanning parameters

| Scan area         | TMJ/Mandible/Maxilla (per<br>diagram below)         |  |
|-------------------|---|--|
| Algorithm         | Standard (Do <b>not</b> use Detail or<br>Bone)      |  |
|                   | Preferred algorithms                                |  |
|                   | GE<br>Phillips<br>Siemens<br>Toshiba                | Standard<br>B<br>H30s<br>FC30 or FC03* |
| FOV               | 20 cm (may be adjusted to best fit patient anatomy) |  |
| Pitch             | 1:1   |  |
| Slice interval    | 0.5mm to 1mm. <b>Do not</b><br>reformat             |  |
| Slice thickness   | Same as slice interval                              |  |
| Contrast          | Scan without contrast                               |  |
| Gantry tilt angle | 0° Gantry tilt                                      |  |
| Archival          | Uncompressed DICOM image data                       |  |

\* Toshiba scanners: Use whichever is identified as a STANDARD algorithm on your machine.



Scan area containing sella and nasion

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