Simplant®

Single Scan
guidelines for taking a dental scan for Simplant®

This document describes the guidelines for a Single Scan that is taken for the purpose of ordering a Simplant project and/or a Simplant Guide. These guidelines are preferably transferred to the radiology department that is not yet familiar with the procedure.

Do not forget to instruct the patient on how to correctly position the bite index or spacer (and in some cases also the scan prosthesis). Make sure you also include the prescription form.

Overview of the procedure:

The Single Scan procedure can be used with both CT and cone-beam 3D scanners.

Partially Edentulous Cases

Single Scan procedure

Take one scan of the patient wearing a radiolucent bite index or spacer (the spacer is used to separate the upper and lower teeth and to stabilize the jaws during the scanning procedure).

Make sure the tongue is separated from the palate and the cheeks are separated from the tooth arch. You can obtain this by applying cotton wool at the buccal side.

Cone-beam 3D scanner

Patient Scan

- Positioning of the patient is comparable to a standard dental scan. Make sure the transaxial slice plane is parallel to the occlusal plane!

- The upper and/or lower jaw including the prosthesis should be fully in the field of view (MFOV). A full arch scan is required to fabricate a Simplant Guide.

- If required, the field of view can be enlarged (RFOV). Partial scanning of the opposing jaw will help you evaluate the occlusion during the planning procedure (upper and lower jaw). Expanding the Field of View until the osteomeatal complex will help you evaluate potential sinus pathologies (upper jaw only).

Upper jaw

Lower jaw

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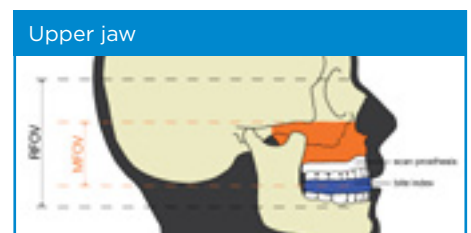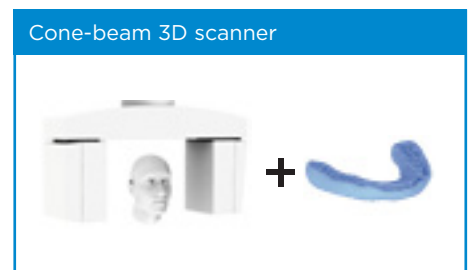
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Scan settings

CT scanner:

Matrix 512 x 512
Slice thickness between 0.4 and 0.8 mm
Slice increment between 0.3 and 0.5 mm
Gantry tilt 0°

Cone-beam 3D scanner:

High resolution

Reconstruction of the images

CT scanner

- Use a proper image reconstruction algorithm to obtain sharp reformatted images where you can locate internal structures such as the nervus alveolaris inferior. Use the sharpest reconstruction algorithm available.

- Only the axial images are required, no additional reformatting required.

- The images should be saved as DICOM images.

- To easily distribute or convert your images, go to DentalPlanit at **www.dentalplanit.com**

Cone-beam 3D scanner

- You can download your cone-beam specific guidelines at **www.simplant.com**

- Only the axial images are required.

- The images should be saved as DICOM images. Make sure the DICOM images of the patient and scan prosthesis are saved in a separate folder.

- To easily distribute or convert your images, go to DentalPlanit **www.dentalplanit.com**

For more information, look for your local Customer Service team at **www.simplant.com**

www.dentsplysirona.com

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