

Radiographic Guides

Dual scans can be used for most patients. C-Dental recommends the dual scan for patients with 3 teeth or less

Please follow the checklist below to make sure the radiographic denture will work properly for the scan.

The denture should have all of the following:

no soft reline!! (squishy inside)

- NO metal or radiopaque material
- Excellent fit to soft tissue and patient cast
- Hard reline only - no soft reline or denture adhesive material on inside of denture
- EXACTLY 6 gutta percha markers NO LARGER THAN 1MM ROUND
 - If there are more than 6 markers, we will still be able to do the merge. If there are less than 6, you will need to add the stickers. Every office should have marker stickers in the office.
 - Stickers may be used instead, make sure to thoroughly dry denture so they do not slip or move between scans or merge will fail. Get your stickers here: [Where to order 1MM BB Stickers](#)
- **Mandible:** markers should be on flange, below gingival plane
- **Maxilla:** above the gingival plane on the maxilla
- Markers need to be placed outside the scatter field of any crowns or implants. Markers may be placed on the buccal or anterior when metal crowns or implants are present in the normal placement area. Additional markers may be placed when metal crowns are present to ensure we can find at least 5 markers



****Anchor Guide**

PVS Bite Support: Dentures with **anchors to implants may not need a bite support, all other cases please use bite support to correctly seat the dentures to the intaglio surface during the patient scan.

PVS Bite support fabrication instructions next page:

1. Take preferred Polyvinyl siloxane (PVS) impression, or if necessary, alginate impression with a plaster model poured immediately.

- No drag
- No pull
- No bubbles
- Cover palette
- Deep into vestibule
- Cover retromolar pad

2. Prepare Plaster Models

- Must accurately reproduce the buccal and lingual margins
- Vestibule must be clear and understated

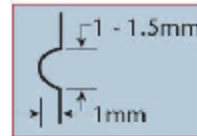
3. Fabricate Radiographic Guide

**The accuracy of this guide is very important, as it is the basis for fabricating the surgical guide.*

- Use clear orthodontic acrylic
- Tooth position and size should represent the final prosthesis
- The crowns should be distinctively represented on the facial/buccal and occlusal aspects of guide
- Guide should cover occlusal surface of full arch
- Guide should extend over the gums on lingual/palatal side

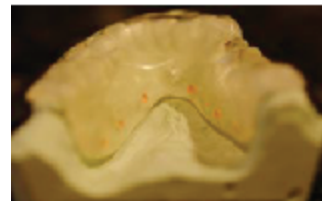
4. Drill 6 gutta percha filled markers (GPM)

- Use #2 round bur to 1 mm depth
- All lingual
- On varying horizontal planes
- On flange, below gingival plane on the mandible - above on maxilla
- Fill holes flush with gutta percha



5. Fabricate bite support for use during CBCT scan

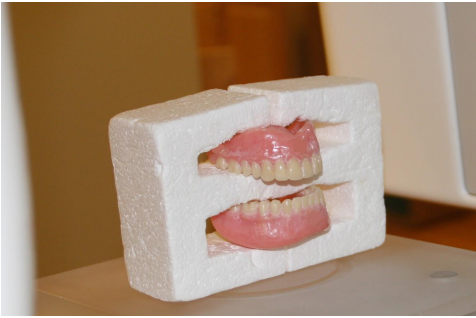
- Ensure no overlap of incisal or posterior occlusion
- Use stiff, radiolucent bite support material
- Cover complete arch
- If teeth are missing in opposing arch, fill edentulous space with index material to make contact with alveolar ridge



Imaging instructions:

- **ALWAYS** scan the denture before scanning the patient. If you see anything wrong with the denture, or if there is no bite support, you should not scan the patient and contact the doctor to inform them.
- **Never perform the DENTURE SCAN with the bite support attached to the denture.**
- **Only use the bite support when you scan the patient with the denture.**

Please see picture below for proper setup in the machine.



If you do not have this type of holder, you may use the styrofoam block that is used for the phantom scans and scan each denture/guide individually.

Be sure the dentures are in the scanned in the correct orientation (as they would be in the patient's mouth).

Dicom creation and delivery:

- Select the option CT (one file per slice) ◦ You should have hundreds of .dcm files contained inside a folder
- Choose a .3 or 4 mm slice thickness
- Place only the Dicom folder and the U and L files inside a (patient name) folder
- Zip the folder (right click, send to compressed (zipped) folder) ◦ upload the zipped folder titled with the patient name
- Upload using this link: [Upload link](#)
- If you do not have a google account please contact starazi@cdental.com for alternate upload option

Select axial matrix size (pixels)

543x543 - Same as source

512x512

256x256

Select slice thickness

Create isotropic volume

0.400mm

3. Select output file format

Select file format

CT (one file per slice)

Multi-frame (one single file)

Anonymize

Create DICOMDir

Select compression

Uncompressed

Compressed (JPEG lossless)

Export