

CT Scanning Protocol

Double Scan

Two scans should be performed in order to get a clear representation of the patient's anatomy, and of the CT Scan Appliance.

- One scan of the patient wearing the CT Scan Appliance
- A second scan of the CT Scan Appliance scanned separately

Check prior to CT Scan

The scan appliance should be tested in the patient's mouth to ensure a secure and snug fit prior to the CT Scan.

A CT Scan should NOT be performed if

- 1) The patient does not arrive with the CT Scan Appliance
- 2) The CT Scan appliance does not contain indexing markers (Gutta-purcha or other material)

First Scan

- Position the patient in the CT Scanner with the CT Scan Appliance in the patient's mouth.
- The patient should be positioned parallel to the occlusal plane with NO TILT.
- 0.5mm should be the maximum distance between axial slices.
- Always use a bit block to slightly separate the patient's jaw.
- Check that the positioning is stable and start the scan.

Second Scan

- The CT Scan Appliance should be scanned in a similar position and location as the first scan.
- Apply the same settings used in the first scan for the second scan (including axial slice distance) and start the scan..
- The CT Scan Appliance should be positioned in the CT Scanner, using a mostly radiolucent material. After the scan, it should be confirmed that the material appears significantly darker than the CT Scan Appliance in the CT Scan.

Each scan should be saved into a separate directory in UNCOMPRESSED DICOM3 format.

Parameters / Settings

- | | |
|---------------------------|--|
| ▪ Gantry Tilt | NONE |
| ▪ Slice Thickness | <0.5 |
| ▪ Tube Voltage | 120 kV |
| ▪ Reconstruction Interval | 0.5mm |
| ▪ FOV | Index markers should appear in field of view |
| ▪ Scout Image | Recommended |
| ▪ Media | CD / DVD |
| ▪ Format | DICOM3 |
| | ○ Separate directories for each scan |
| ▪ Compression | NONE |