Implant Planning Scan Protocol

Guidelines Supporting Comprehensive Clinical Implant Planning

These recommendations help ensure accurate implant planning and reduce the need for repeat scans or delays in treatment. Please review the following guidelines before acquiring CBCT data for implant planning cases.

1. Field of View (FOV)

The CBCT scan should include:

- The arch of interest, and
- At least 5 mm of the opposing arch.

2. Patient Preparation

Prior to scanning, ensure the patient removes:

- Removable partial or complete dentures
- Removable earrings or metallic accessories in the head and neck region

This helps prevent imaging artifacts that may interfere with accurate planning.

3. Patient Bite Position

To create adequate separation between the arches:

- Place cotton rolls bilaterally in the canine–premolar region.
- Have the patient gently bite and maintain position during scanning.

4. Fully Edentulous Cases — Dual Scan Protocol

For completely edentulous patients, a dual scan protocol is required.

Denture Preparation

- Use a well-fitting, fully seated acrylic denture.
- If necessary, reline the denture using a soft reliner to ensure stable seating.
- Place 6–8 radiopaque markers distributed on:

Buccal and palatal/lingual surfaces.
Markers should remain in the same locations for both scans.

Scanning Steps

- Scan the patient wearing a well seated/fitting denture with markers in place.
- Scan the denture alone, maintaining the same marker locations.
- Both scans are required for accurate digital alignment during planning and surgical guide design.

5. File Format

CBCT data should be exported and submitted as multi-file DICOM format.

6. Models / Intraoral Scans

Please include:
Upper and lower arch models or intraoral scans
A bite registration showing occlusal relationship