

In which situation is the use of a Scan Appliance required?

A radiographic guide is suggested for the following:

-Reconstructive cases - For surgeries involving the restoration of significant dentition, particularly in the anterior segment, it is beneficial to have the tooth position verified intraorally with a scan appliance.

-Edentulous cases – Without a scan appliance implant position may not coordinate with final tooth position and may compromise the ultimate case result.

-Excessive scatter - Metal restorations cause scatter, and excessive scatter will require the use of a scan appliance. The amount of scatter can be determined from a preliminary CT or existing radiograph.


Software choice - BlueSkyPlan, SimPlant, iDent, NobelGuide

What are the steps required when a Scan Appliance will be utilized?

Step 1. Restorative Doctor: Provide master casts or quality, full-arch maxillary and mandibular silicone impressions, bite registration, study model, and completed CT Order Form.

Step 2. ROE Dental Laboratory: Create a diagnostic wax-up of the proposed final tooth position. Once approved by the general dentist, a CT scan appliance is fabricated. A patient's existing denture can be used if ill-fitting a hard-reline should be done prior to scan appliance fabrication.

Step 3. Restorative Doctor: Try-in the scan appliance to verify the fit. If the fit is perfect, image the patient following the specific protocol. If the fit is not ideal, adjust accordingly or capture new impression and remake the scan appliance.

Step 4. Imaging Location: Record CT scan – a specific protocol must be followed for each planning software. After completing your first scan call ROE while patient is still in the office to confirm the scan! Upload the DICOM to ROE through www.dentalimplantplanning.com. 

Step 5. ROE Dental Laboratory: Preplan case using planning software ensuring implant locations meet surgical and restorative requirements.

Step 6. Restorative Dentist, Surgeon and Laboratory: Attend a live interactive online meeting (gomikogo.com) to modify and approve the surgical plan for guide fabrication. Specialist completes and returns the CT Order Form which contains the drill sequence and case-approval to ROE.

Step 7. ROE Dental Laboratory: Create the surgical guide and drilling report.

When can the No-Scan-Appliance Technique be utilized?


A radiographic guide may be avoided:

-For treatment plans that replace six or less teeth per arch, the no-scan appliance technique may be possible. This technique uses the virtual placement of teeth or a scan of a functional diagnostic wax-up in determining tooth position for virtual surgical planning. The virtual model image of the tooth position is superimposed over the conebeam data rendering accurate hard and soft tissue surfaces in the software from which your clinical decisions can be made. Currently this technique is only available with BlueSkyPlan and SimPlant. Multiple metal-based restorations in the arch being restored, as determined by a preliminary CT or existing radiograph, may prevent the use of this process.

Software choice – BlueSkyPlan & SimPlant

What are the steps required if the No-Scan Appliance protocol is used?

Step 1. Restorative Doctor or Specialist: Provide master casts or full-arch maxillary and mandibular silicone impressions, bite registration, study model, and completed CT Order Form.

Step 2. Imaging Location: Capture CBCT scan following ROE's CT Scan Protocol (available at www.dentalimplantplanning.com) ensuring arches are separated by cotton rolls or radiolucent material. Upload DICOM through above web site. 

Step 3. ROE Dental Laboratory: Preplan case using planning software ensuring implant locations meet surgical and restorative requirements.

Step 4. Restorative Dentist, Surgeon and Laboratory: Attend a live interactive online meeting (gomikogo.com) to modify and approve the surgical plan for guide fabrication. Specialist completes and returns the CT Order Form which contains the drill sequence and case-approval to ROE.

Step 5. ROE Dental Laboratory: Create the surgical guide and drilling report.