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From Scan to Plan to Guide

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Scan

We’ll arrange a CT or CBCT Scan at one of 17 partner sites from €150
CBCT Scans taken at The Northbrook Clinic
Plan
We’ll help with the treatment planning
from €70
Guide
We’ll make the surgical drill guide
from €150
We support the following software:

- Osirix™
- i-CATVision™
- Blue Sky Plan™
- In Vivo Dental™
- SIMPLANT™
- NobelGuide™
- coDiagnostiX™
Dental (CB)CT Scans

• Bony anatomy of Mandible, Maxilla, Zygomatic Arches

• Useful for:
  ➢ impacted, supernumerary and abnormal teeth
  ➢ root canals, root fractures
  ➢ planning dental implants
  ➢ periapical disease
  ➢ cleft palate assessment
  ➢ TMJ and airway analysis
Restoration-Driven Implant Planning

“Create a model of the desired result, then work backwards to determine how it can be achieved”

- Radio-Opaque Scanning Stents
- 3D Implant Planning Software
- Surgical Drill Guides
Surgical Drill Guides
Surgical Drill Guides

- Guiding cylinders
- The guide controls:
  - Position
  - Orientation
  - (Depth)

- Guide can rest on:
  - Bone
  - Mucosa
  - Teeth
Guides can be supported on:

**Bone Supported Guides:**
- Bone crest must be clearly visible in the CT images and ≥ 3cm long

**Mucosa Supported Guides:**
- Patient must be scanned with a radio-opaque scanning stent in place

**Tooth Supported Guides:**
- Tips of teeth must be clearly visible in the CT images
- A recent and accurate plaster cast will be required

Need to think about the Guide before you request the CT Scan!
Radio-Opaque Scanning Stents

- Gives inter-arch stability for the patient during the scan
- Opens the bite slightly (a few mm) using occlusal stops
- Position and size of the desired restoration can be visualised in the CT images
- If the maxilla and mandible are scanned together the 3D image will illustrate the inter-arch relationship.
Making a Scanning Stent

- Plastic and clear acrylic does not show up on a CT scan.

- To make it show up, you can:
  - mix barium sulphate with the acrylic
  - paint barium sulphate on the surface
  - use radio-opaque teeth
  - use markers made from a radio-opaque material
    - lab putty
    - gutta percha
    - glass ionomer
  - use a dual-scan technique.
• We recommend using a barium sulphate-acrylic mix for both the radio-opaque teeth and the baseplate.

• Use 15% barium sulphate in the teeth and 10% barium sulphate in the baseplate. This allows the teeth to be picked out separately.

• An accurate fitting stent with radio-opaque baseplate is usually the best option for mucosa-supported surgical drill guides.
Good Stent
Bad Stent
Terrible Stent
Dual Scan Technique
3D Implant Planning Software
Why 3D software is important
Segmentation
Hyperdontia

Courtesy of Nicolette Schroeder
Third Molars

Courtesy of Barry Dace
Take the CT Scan first, do the surgery second (not the other ways around)!