

GUIDED ENDODONTICS AS A PERSONALIZED TOOL FOR THE COMPLICATED CLINICAL CASES

Static/Template Guided Endodontics

Pre-operative requirements:-

- CBCT and diagnostic impression/oral scanner



Operator accessibility:-

- Limited and not possible to modify treatment plan once the guide is fabricated

Advantages:-

- Accurate reproduction of details
- Reduce operative time

Disadvantages:-

- Only performed on straight roots.
- More time for planning.
- Increased cost.
- Implementation in the posterior region is difficult due to the limited space available

Devices required:-

- 3D planning software
- 3D print Guide

Working Protocol:-

- CBCT scan of the involved tooth
- Surface Scan
- Merging the CBCT scan and surface scan with software
- Designing of endodontic guide
- Tracing the canal
- Creating a virtual drill path

Dynamic Guided Endodontics

Pre-operative requirements:-

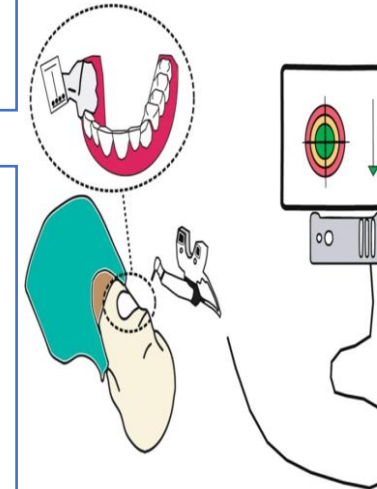
- CBCT and diagnostic impression/oral scanner

Devices required:-

- Hand piece attachment
- System cart consisting camera
- Computer with navigation software and markers

Working Protocol:-

- CBCT scan of the involved tooth
- Surface Scan
- Merging the CBCT scan and surface scan with software
- Plan
- Trace
- Drill



Operator accessibility:-

- Good and possible to modify procedure plan at any time of treatment

Advantages:-

- Template fabrication step is eliminated and thus patients with severe pain can be treated more quickly
- Errorless and superior in accuracy
- Reduces risk of damaging vital structures

Disadvantages:-

- Longer surgical time
- More steps
- Possible inaccuracies during registration