

### Fundamentals

Create straight-line access to orifices.

Always irrigate and negotiate each canal with hand files.

Use in Gear Reduction electric handpiece at 300 RPM.

Check frequently for wear.

Clean flutes frequently.

Use light apical pressure.

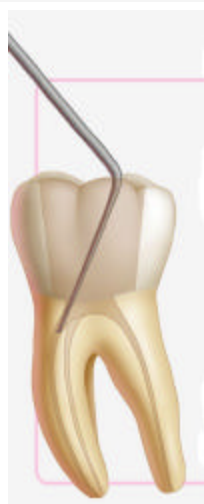
Only take any ProTaper instrument to length one time and for no more than one second.

Confirm exact length determination.  
Avoid instrumenting through apex.



1

**Straight Line Access**



2

**Identify orifices**



3

**Prolube**



4

**Copious irrigation**

5



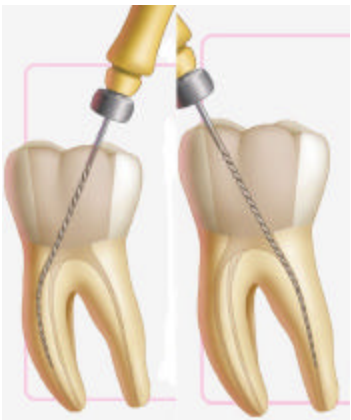
Create glide path with #10, #15, #20 hand files

6



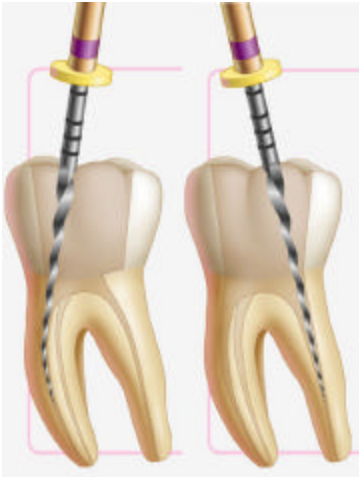
Create glide path with #10, #15, #20 hand files

7



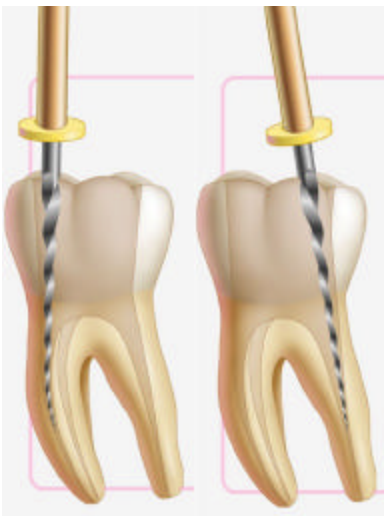
Create glide path with #10, #15, #20 hand files

8



Coronal flaring with S1 Protaper to resistance (no more than 2/3rds canal depth)

9



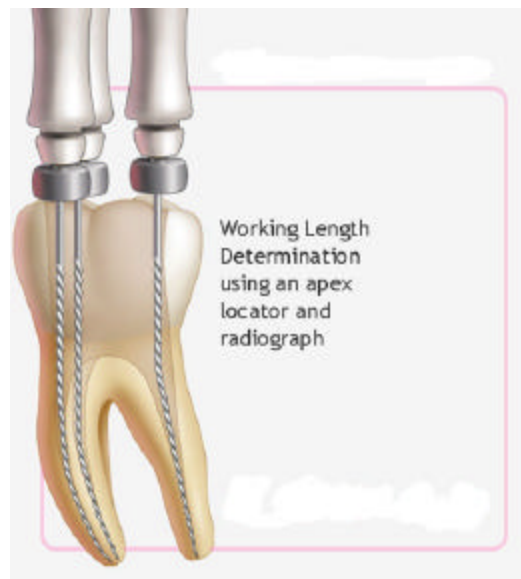
Coronal flaring with Sx Protaper to resistance (no more than 2/3rds canal depth)

10



Working Length  
Determination  
using an apex  
locator and  
radiograph

11

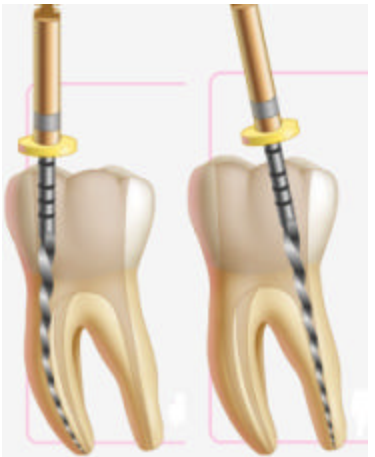


Working Length  
Determination  
using an apex  
locator and  
radiograph



12

Use S1 to determined working length – EAL reading, radiograph



13

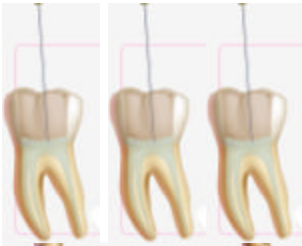
Use S2 to determined working length – EAL reading, radiograph



14

Use F1 to determined working length – EAL reading, radiograph

15



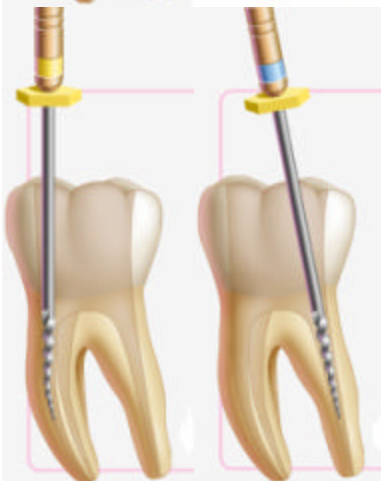
Irrigation protocol is repeated between each file minimally – remember, rotaries must be cleaned after usage and never used in a dry canal

16



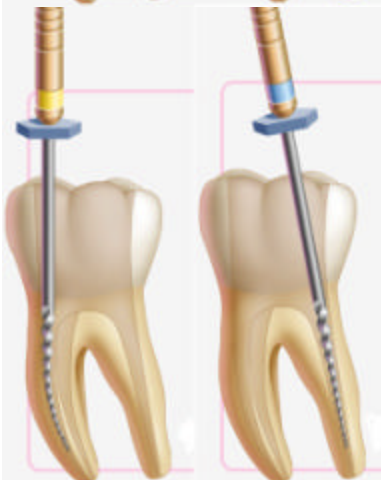
Use 20/.12 Greater Taper File in mesial and distal canals

17



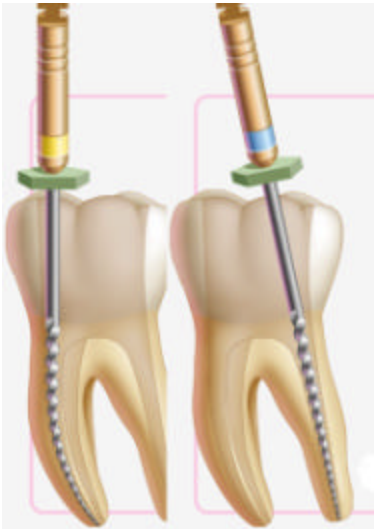
Use 20/.10 Greater Taper File in mesial canal and 30/.10 Greater Taper File in distal canal

18



Use 20/.08 Greater Taper File in mesial canal and 30/.08 Greater Taper File in distal canal

19



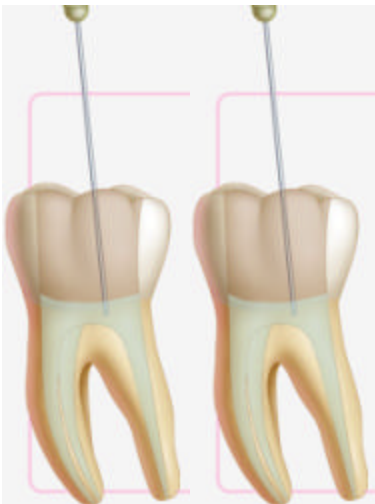
Use 20/.06 Greater Taper File in mesial canal and 30/.06 Greater Taper File in distal canal

20



You're done when the gutta percha cone fits the shape

21



Irrigation sequence, NaOCl, EDTA, Ethanol interspersed, Chlorhexidine, Ethanol

22



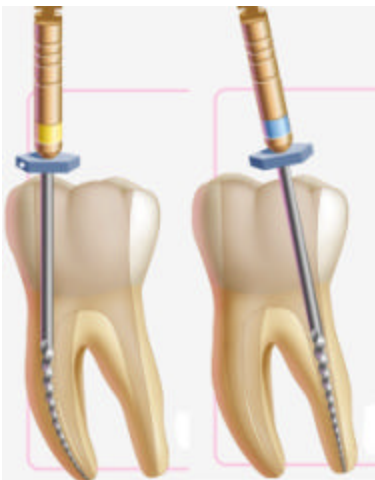
Use 20/.12 Greater Taper File in mesial and distal canals

23



Use 20/.10 Greater Taper File in mesial canal and 30/.10 Greater Taper File in distal canal

24



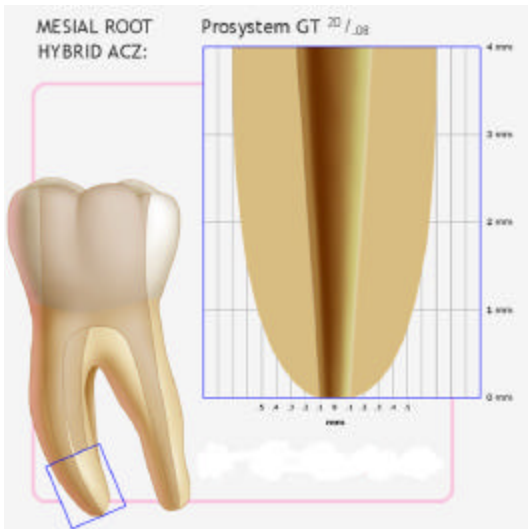
Use 20/.08 Greater Taper File in mesial canal and 30/.08 Greater Taper File in distal canal

25



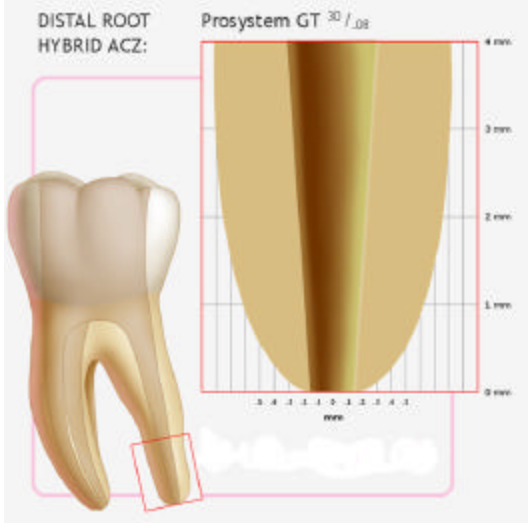
The shape of the canal fits the shape of the cone

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The hybrid approach optimizes the design of the Apical Control Zone

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A precisely located apical matrix is the essence of Predictable Endodontic Success