H. Restoration of Endodontically Treated Teeth

1. Post (Dowel)

Indications for Treatment
Post placement is indicated if both of the following clinical conditions exist:
   a. The remaining coronal tooth structure is inadequate for the retention of a restoration.
   b. When there is sufficient root length to accommodate the post while maintaining an adequate apical seal.

Procedure
Following nonsurgical root canal treatment, a post space is created in the root canal by careful removal of the coronal canal obturating material. A sufficient amount of material must be retained in the apical portion of the canal to maintain an adequate apical seal. A custom or proprietary post is fitted and cemented into the root canal for core retention. The post should be passively retained and is cemented and/or bonded into place so that no voids exist between the post and the surrounding tooth structure and root canal filling material. Preparation of the post space and placement of the post should be accomplished using an aseptic technique with dental dam isolation.

Objectives
   a. To retain the core restoration.
   b. To place the post along the long axis of the root.
   c. To avoid perforations or root fractures.
   d. To preserve the apical seal.
   e. To eliminate any space between the post and the surrounding tooth structure or root canal filling material.
   f. To place the post in root structure that is supported by bone.
   g. To minimize contamination of the root canal system during the procedure.

2. Core

Indications for Treatment
Core restorations are indicated if any of the following clinical conditions exist:
   a. The replacement of missing coronal tooth structure is necessary.
   b. When the enhanced retention and resistance to displacement of the final restoration is necessary.

Procedure
The core material fills the pulp chamber and the coronal portions of the obturated root canal spaces, enhances the coronal seal and replaces missing coronal tooth structure in an endodontically treated tooth prior to the placement of the final restoration. The core may be constructed with a variety of acceptable materials and may or may not be used in conjunction with posts.

Objectives
   a. To provide retention for the final restoration.
   b. To occupy the entire pulp chamber with the core when possible.
   c. The core does not perforate the pulp chamber floor.
   d. To eliminate space between the core and the root canal filling material.

3. Posterior Teeth

It is recommended that endodontically treated posterior teeth be restored with a full cuspal protective restoration. The restoration should protect the remaining tooth structure and provide a coronal seal.

4. Anterior Teeth

Restoration of an endodontically treated anterior tooth is based on its clinical condition. Choice of the final restoration should be based on esthetic and functional requirements. The restoration should protect the remaining tooth structure and provide a coronal seal.
SELECTED REFERENCES:
Restoration of Endodontically Treated Teeth


