C. Vital Pulp Therapy

1. Indirect Pulp Capping

Indications for Treatment
Indirect pulp capping is indicated on permanent teeth with immature apices if all the following conditions exist:

a. Tooth has a deep carious lesion that is considered likely to result in pulp exposure during excavation.
b. No history of subjective pretreatment symptoms.
c. Pretreatment radiographs should exclude periradicular pathosis.
d. Patient has been fully informed that endodontic treatment may be indicated in the future.

Procedure
Treatment consists of two visits approximately six-to-eight months apart. At the first visit, caries biomass is excavated leaving affected dentin adjacent to the pulp. Calcium hydroxide or other biologically compatible material is placed over the dentin followed by a base, and the tooth is soundly restored. At the second visit, the restorative material and residual caries mass is removed, and the tooth is restored.

Objectives
a. To prevent adverse clinical signs and symptoms.
b. To obtain radiographic evidence of root development.
c. To prevent breakdown of the periradicular supporting tissues.
d. To prevent resorptive defects or accelerated canal calcification as determined by periodic radiographic evaluation.

2. Direct Pulp Capping

Indications for Treatment
Direct pulp capping is indicated when all of the following clinical conditions exist:

a. Mechanical exposure of a clinically vital and asymptomatic pulp occurs.
b. Bleeding is controlled at the exposure site.
c. Exposure permits the capping material to make direct contact with the vital pulp tissue.
d. Exposure occurs when the tooth is under dental dam isolation.
e. Adequate seal of the coronal restoration can be maintained.
f. Patient has been fully informed that endodontic treatment may be indicated in the future.

Procedure
A radiopaque capping material is placed directly onto the surface of vital pulp tissue at the site of the pulp exposure followed by a base. The final restoration is placed over the base. The status of the pulp and periradicular tissues should be assessed through periodic recall examinations.

Objectives
a. To prevent adverse clinical signs or symptoms.
b. To develop contact of a radiopaque capping material with the pulpal tissue.
c. To maintain normal responsiveness to electrical and thermal pulp tests.
d. To prevent breakdown of the periradicular supporting tissue.

3. Pulpotomy

Indications for Treatment
A pulpotomy may be indicated if any of the following clinical conditions exist:

a. Exposed vital pulps or irreversible pulpitis of primary teeth. Primary teeth with insufficient root structure, internal resorption, furcal perforation or periradicular pathosis that may jeopardize the permanent successor are not indicated for pulpotomy procedures.
b. As an emergency procedure in permanent teeth until root canal treatment can be accomplished.
c. As an interim procedure for permanent teeth with immature root formation to allow continued root development (apexogenesis). (See Section D-3)

Procedure
Pulpotomy is the surgical removal of the coronal portion of vital pulp tissue. A biologically acceptable material is placed in the pulp chamber, and the tooth is restored.

Objectives
a. To prevent adverse clinical signs or symptoms.
b. To obtain radiographic evidence of sufficient root development for endodontic treatment. An increase in root length may be evident.
c. To prevent breakdown of the periradicular supporting tissues.
d. To prevent resorptive defects or accelerated canal calcification as determined by periodic radiographic evaluation.
**SELECTED REFERENCES:**

**Vital Pulp Therapy**


