

Non-Surgical Endodontics

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[Instructions for Use](#)

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Related Dental Policy

- [Surgical Endodontics](#)

Coverage Rationale

Vital Pulp Therapy

Direct Pulp Cap

Direct Pulp Capping is indicated for permanent teeth for the following:

- Tooth has a vital pulp or been diagnosed with reversible pulpitis
- All caries has been removed
- Mechanical exposure of a clinically vital and asymptomatic pulp occurs
- If bleeding can be controlled at the site of exposure

Indirect Pulp Cap

Indirect Pulp Capping is indicated for primary teeth or permanent teeth with immature apices for the following:

- Tooth has a vital pulp or been diagnosed with reversible pulpitis
- Tooth has a deep carious lesion that is considered likely to result in pulp exposure during excavation

Therapeutic Pulpotomy

Therapeutic Pulpotomy is indicated for the following:

- Exposed vital pulps or irreversible pulpitis of primary teeth where there is a reasonable period of retention expected (approximately one year)
- As an emergency procedure in permanent teeth until root canal treatment can be accomplished
- As an interim procedure for permanent teeth with immature root formation to allow continued root development

Therapeutic Pulpotomy is not indicated for the following:

- Primary teeth with insufficient root structure, internal resorption, furcal Perforation or periradicular pathosis that may jeopardize the permanent successor
- Removal of pulp apical to the dentinocemental junction

Partial Pulpectomy for Apexogenesis

A partial pulpotomy for Apexogenesis is indicated for the following:

- In a young permanent tooth for a carious pulp exposure

- A vital tooth, with a diagnosis of normal pulp or reversible pulpitis

Apexification/Recalcification

Apexification/Recalcification is indicated for the following:

- Incomplete apical closure in a permanent tooth root
- External root resorption or when the possibility of external root resorption exists
- Necrotic pulp, irreversible pulpitis or periapical lesion
- For prevention or arrest of resorption
- Perforations or root fractures that do not communicate with oral cavity

Apexification/Recalcification is not indicated for the following:

- Tooth with a completely closed apex
- If patient compliance or long term follow up may be questionable

Regenerative Endodontics

Pulpal Regeneration is indicated for the following:

- Permanent tooth with immature apex
- Necrotic pulp
- When tooth is not restorable

Pulpal Regeneration is not indicated if the pulp space would be needed for final restoration.

Non-Vital Pulp Therapy

Pulpal Debridement (Pulpectomy)

Pulpal Debridement (Pulpectomy) is indicated for the following:

- A restorable permanent tooth with irreversible pulpitis or a necrotic pulp in which the root is apexified
- The relief of acute pain prior to complete root canal therapy
- A primary tooth, where there is a reasonable period of retention expected (approximately one year)

Pulpal Debridement (Pulpectomy) is not indicated as definitive endodontic therapy.

Pulpal Therapy (Resorbable Filling) – Primary Teeth

Pulpal therapy for primary teeth is indicated for the following:

- A restorable primary tooth with irreversible pulpitis or a necrotic pulp in which the root is apexified
- The prognosis for keeping the tooth is up to one year and the tooth root lies in at least 25% bone

Endodontic Therapy

Endodontic therapy is indicated for the following:

- A restorable, mature, completely developed permanent or primary tooth with irreversible pulpitis, necrotic pulp or frank vital pulpal exposure
- Teeth with radiographic periapical pathology
- Primary teeth without a permanent successor
- When needed for prosthetic rehabilitation

Endodontic therapy is not indicated for the following:

- Teeth with a poor long-term prognosis
- Teeth with inadequate bone support or advanced or untreated periodontal disease
- Teeth with incompletely formed root apices

Treatment of Root Canal Obstruction: Non-Surgical Access

Treatment of a root canal obstruction is indicated for the following:

- Biological obstructions

- Iatrogenic ledges
- Separated files or other instruments
- Complete calcification of 50% or more of root length

Incomplete Endodontic Therapy

The inability to complete endodontic therapy may occur if, during treatment, it becomes apparent that access is not possible, the tooth will not be able to be restored, or the tooth fractures.

Internal Root Repair of Perforation Defects

Internal root repair of Perforation defects is indicated for the following:

- There is a root Perforation caused by pathology such as resorption or decay
- A communication exists between the pulp space and external root surface as a result of internal root resorption

Internal root repair of Perforation defects is not indicated for the following:

- Teeth that are considered non-restorable
- Teeth with inadequate bone support or advanced untreated periodontal disease

Retreatment of Previous Root Canal Therapy

Retreatment of previous root canal therapy is indicated for the following:

- Canal fill appears to extend to a point shorter than 2 millimeters from the apex, or extends significantly beyond the apex
- Fill appears to be incomplete
- Tooth is sensitive to pressure and percussion or other subjective symptoms
- Placement of a post has the potential to compromise the existing obturation or apical seal of the canal system

Coverage Limitations

- Root canal therapy is limited to 1 time per tooth per lifetime; dental provider who performed the original root canal should not be reimbursed for the retreatment for the first 12 months
- For retreatment of previous root canal therapy, the dental provider who performed the original root canal should not be reimbursed for the retreatment for the first 12 months
- Therapeutic Pulpotomy limited to 1 time per primary or permanent tooth per lifetime
- Pulpal Therapy (resorbable filling) – Anterior or Posterior, Primary Tooth (excluding final restoration), and Pulpal Debridement are limited to 1 per tooth per lifetime
- Pulp Caps are not covered if utilized solely as a liner or base underneath a restoration

Definitions

Apexogenesis: The vital pulp therapy performed to encourage continued physiological formation and development of the tooth root. (ADA)

Direct Pulp Cap: A procedure in which the exposed vital pulp is treated with a therapeutic material, followed with a base and restoration, to promote healing and maintain pulp vitality. (ADA)

Endodontics: The branch of dentistry which is concerned with the morphology, physiology and pathology of the human dental pulp and periradicular tissues. Its study and practice encompass the basic and clinical sciences including biology of the normal pulp, the etiology, diagnosis, prevention and treatment of diseases and injuries of the pulp and associated periradicular conditions. (ADA)

Indirect Pulp Cap: A procedure in which the nearly exposed pulp is covered with a protective dressing to protect the pulp from additional injury and to promote healing and repair via formation of secondary dentin. (ADA)

Perforation: The mechanical or pathologic communication between the root canal system and the external tooth surface. (AAE)

Pulpal Debridement (Pulpectomy): The complete removal of vital and non-vital pulp tissue from the root canal space. (ADA)

Regenerative Endodontics: Biologically based procedures designed to physiologically replace damaged tooth structures, including dentin and root structures, as well as cells of the pulp-dentin complex. (AAE)

Recalcification: A procedure used to encourage biologic root repair of external and internal resorption defects. (ADA)

(Therapeutic) Pulpotomy: The removal of a portion of the pulp, including the diseased aspect, with the intent of maintaining the vitality of the remaining pulpal tissue by means of a therapeutic dressing. (ADA)

Applicable Codes

The following list(s) of procedure and/or diagnosis codes is provided for reference purposes only and may not be all inclusive. Listing of a code in this guideline does not imply that the service described by the code is a covered or non-covered health service. Benefit coverage for health services is determined by the member specific benefit plan document and applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment. Other Policies and Guidelines may apply.

CDT Code	Description
D3110	Pulp cap – direct (excluding final restoration)
D3120	Pulp cap – indirect (excluding final restoration)
D3220	Therapeutic pulpotomy (excluding final restoration) – removal of pulp coronal to the dentinocemental junction and application of medicament
D3221	Pulpal debridement, primary and permanent teeth
D3222	Partial pulpotomy for apexogenesis – permanent tooth with incomplete root development
D3230	Pulpal therapy (resorbable filling) – anterior, primary tooth (excluding final restoration)
D3240	Pulpal therapy (resorbable filling) – posterior, primary tooth (excluding final restoration)
D3310	Endodontic therapy, anterior tooth (excluding final restoration)
D3320	Endodontic therapy, premolar tooth (excluding final restoration)
D3330	Endodontic therapy, molar tooth (excluding final restoration)
D3331	Treatment of root canal obstruction; non-surgical access
D3332	Incomplete endodontic therapy; inoperable, unrestorable or fractured tooth
D3333	Internal root repair of perforation defects
D3346	Retreatment of previous root canal therapy – anterior
D3347	Retreatment of previous root canal therapy – premolar
D3348	Retreatment of previous root canal therapy – molar
D3351	Apexification/recalcification – initial visit (apical closure/calcific repair of perforations, root resorption, etc.)
D3352	Apexification/recalcification – interim medication visit (apical closure/calcific repair of perforations, root resorption, pulp space disinfection, etc.)
D3353	Apexification/recalcification – final visit (includes completed root canal therapy – apical closure/calcific repair of perforations, root resorption, etc.)
D3355	Pulpal regeneration – initial visit
D3356	Pulpal regeneration – interim medicament replacement
D3357	Pulpal regeneration – completion of treatment

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Description of Services

Non-surgical endodontic treatment is the use of biologically acceptable chemical and mechanical treatments of the root canal system to promote healing and repair of the periradicular tissues. Additional surgical procedures may be required to remove posts and manage canal obstructions, radicular defects, aberrant canal morphology, ledges or perforations. Intra-operative radiographs and all appointments necessary to complete a procedure are inclusive.

References

- American Academy on Pediatric Dentistry Council on Clinical Affairs. Guideline on pulp therapy for primary and immature permanent teeth. 2014.
- American Association of Endodontists Glossary of Endodontic Terms, 9th edition, 2019.
- American Association of Endodontists Guide to Clinical Endodontics, 6th edition, updated 2013.
- American Association of Endodontists. Endodontics Colleagues for Excellence, Spring 2013b.
- American Dental Association (ADA) CDT Codebook 2021
- American Dental Association (ADA) Glossary of Clinical and Administrative Terms.
- McDonald and Avery's Dentistry for the Child and Adolescent, 10th edition, Treatment of Deep Caries, Vital Pulp Exposure, and Pulp-less Teeth, Chapter 13,
- UnitedHealthcare Insurance Company Dental Certificate of Coverage. 2018.

Guideline History/Revision Information

Date	Summary of Changes
03/15/2021	<ul style="list-style-type: none"> Updated dental entity brand logo
02/01/2021	<p>Template Update</p> <ul style="list-style-type: none"> Reformatted policy; transferred content to new template <p>Coverage Rationale</p> <ul style="list-style-type: none"> Revised list of indications for: <ul style="list-style-type: none"> <i>Direct Pulp Cap for permanent teeth</i> <ul style="list-style-type: none"> Replaced “bleeding <i>is</i> controlled at the exposure <i>site</i>” with “<i>if</i> bleeding <i>can be</i> controlled at the <i>site of exposure</i>” <i>Indirect Pulp Cap for primary teeth or permanent teeth with immature apices</i> <ul style="list-style-type: none"> Removed “no history of subjective pretreatment symptoms” <i>Therapeutic Pulpotomy</i> <ul style="list-style-type: none"> Removed “any bleeding was controlled within several minutes” <i>Partial Pulpectomy for Apexogenesis</i> <ul style="list-style-type: none"> Removed “when the pulpal bleeding is controlled within several minutes” <i>Regenerative Endodontics</i> <ul style="list-style-type: none"> Revised list of indications; removed “pulp space not needed for post/core for final restoration” <i>Endodontic Therapy</i> <ul style="list-style-type: none"> Removed “trauma” <i>Treatment of Root Canal Obstruction: Non-Surgical Access</i> <ul style="list-style-type: none"> Added: <ul style="list-style-type: none"> “Separated files or other instruments” “Complete calcification of 50% or more of root length” Removed: <ul style="list-style-type: none"> “Post removal” “Removal of obstruction is complex and/or requires significant time”

Date	Summary of Changes
	<p data-bbox="337 138 639 170">Supporting Information</p> <ul data-bbox="337 176 1138 235" style="list-style-type: none"> <li data-bbox="337 176 1138 203">• Updated <i>References</i> section to reflect the most current information <li data-bbox="337 207 889 235">• Archived previous policy version DCG009.06

Instructions for Use

This Dental Coverage Guideline provides assistance in interpreting UnitedHealthcare standard dental benefit plans. When deciding coverage, the member specific benefit plan document must be referenced as the terms of the member specific benefit plan may differ from the standard dental plan. In the event of a conflict, the member specific benefit plan document governs. Before using this guideline, please check the member specific benefit plan document and any applicable federal or state mandates. UnitedHealthcare reserves the right to modify its Policies and Guidelines as necessary. This Dental Coverage Guideline is provided for informational purposes. It does not constitute medical advice.