Delta Dental of Ohio Clinical Criteria for Utilization Management Decisions

Clinical Criteria for Endodontic Therapy (Permanent Teeth)

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Introduction

This Delta Dental of Ohio clinical criteria document addresses endodontic therapy. The purpose of this document is to provide written clinical criteria to ensure that Delta Dental of Ohio consistently applies sound and objective clinical evidence when determining the medical necessity and clinical appropriateness of endodontic therapy, as well as taking individual patient circumstances and the local delivery system into account.

Endodontic therapy, commonly known as root canal therapy, is generally performed to treat conditions, injuries and diseases of the tooth pulp and periradicular tissues. Precipitating factors that may create a necessity for endodontic therapy include, but are not limited to, dental caries that invades the tooth pulp, restorative procedures that impinge upon pulpal tissues, failed restorations, tooth fracture, traumatic injury to a tooth and internal or external resorption. In some cases, endodontic therapy may be required to facilitate restorative or prosthodontic treatment.

As typically performed, endodontic therapy involves providing appropriate pain control for the patient and procedure, application of a rubber dam to isolate a tooth from the oral cavity, accessing the pulp chamber of the tooth, identification of root canal orifices, removal of pulp tissue and shaping of the root canals via mechanical instrumentation aided by chemical irrigation, three dimensional obturation to seal the root canals with a biocompatible filling material and sealing of the access opening. In some instances, a root canal blocked by a foreign body or calcification may require additional treatment or a root perforation defect caused by resorption or dental caries may need repair.

Endodontic therapy treatment is commonly performed by endodontists, pediatric dentists and general dentists in a variety of healthcare facilities.

Applicable Dental Procedure Codes

The following dental procedure codes defined in the current version of the American Dental Association's Code on Dental Procedures and Nomenclature (the CDT® Code) are applicable to this document and are the appropriate codes to use when documenting the performance of endodontic therapy. Inclusion of these codes here is for informational purposes only and does not imply benefit coverage or noncoverage of a procedure by a member's dental plan. A determination that a dental procedure is medically necessary and clinically appropriate does not guarantee that the procedure is a covered benefit of a member's dental plan. To determine if endodontic therapy is a covered benefit of an individual member's dental plan, please refer to the plan documents in effect on the date of service.

CDT® Procedure Code	Procedure Code Nomenclature
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

Clinical Criteria[1]

When approval of benefit payment for endodontic therapy by a member's dental plan requires a determination by Delta Dental of Ohio that endodontic therapy is medically necessary and clinically appropriate, the patient's dental record must document a generally accepted indication for performing endodontic therapy. Evidence of one or more of the following conditions is generally considered to be an indication for performing endodontic therapy:

Endodontic Therapy of Anterior, Premolar and Molar Teeth

- Symptomatic or asymptomatic irreversible pulpitis
- Necrotic pulp
- Compromised pulp resulting from dental treatment or restorable tooth fracture
- Post and core placement required for restorative or prosthodontic dental treatment
- Failure of alternative treatment of tooth hypersensitivity
- Symptomatic or asymptomatic apical periodontitis
- Acute or chronic apical abscess
- Condensing osteitis

Treatment of a Root Canal Obstruction Through Non-Surgical Access

- A non-negotiable root canal blocked by foreign bodies, including but not limited to separated instruments, broken posts or calcification of 50% or more of the length of the tooth root

Incomplete Endodontic Therapy

- Considerable time was necessary to determine a pulpal/apical diagnosis and/or provide initial endodontic treatment before a tooth was found to be inoperable, unrestorable and/or fractured

Internal Root Repair of Perforation Defects

- A root perforation in a restorable tooth caused by resorption and/or dental caries (but not iatrogenically caused by the submitting provider)

For patients who do not meet the published qualifying criteria for endodontic therapy, Delta Dental of Ohio will consider documentation from relevant clinicians that explains the necessity of covering endodontic therapy for conditions not included in the criteria.

Depending on the clinical circumstances, the performance of endodontic therapy under the following conditions may be considered not medically necessary, inadvisable or deficient in clinical quality and may result in disapproval of benefits based on a professional determination that treatment is not medically necessary or not clinically appropriate:

- Teeth where there is a lack of pretreatment documentation in the patient record of an accepted indication for endodontic therapy
- Endodontic therapy performed on a tooth that is broken down by dental caries, extensive restoration and/or fracture with insufficient sound tooth structure for successful restoration

[1] Government regulations or the provisions of a member's dental plan that define when a dental procedure may be considered medically necessary and clinically appropriate with respect to benefit coverage may take precedence over these clinical criteria.

- Endodontic therapy performed on a tooth that has failed root integrity due to root fracture or resorptive defect
- Endodontic therapy performed on a tooth that has insufficient alveolar bone support, advanced furcation involvement and/or advanced mucogingival defects
- Performance of endodontic therapy without rubber dam isolation
- Underextension, overextension and/or misalignment of an access cavity preparation inconsistent with the size and shape of the pulp chamber
- Inadequate cleaning and shaping of the root canal system
- Mechanical instrumentation failure resulting in apical transportation, root/furcation perforation, intracanal ledges and/or irretrievable instrument separation
- Untreated root canals
- Apical extent of root canal filling materials is underextended or overextended
- Inadequate three-dimensional obturation of the root canal system resulting in voids and lack of a homogeneous appearance in the filling material
- Obturation of root canals without the use of a biologically acceptable semi-solid or solid filling material
- Inadequate coronal seal resulting in leakage
- Compromised temporomandibular joint likely to cause complications during or after endodontic therapy
- An alternative treatment is more appropriate for a patient's condition or circumstance based on accepted standards of care

Depending on an individual patient’s condition and circumstances, the following additional criteria for endodontic therapy may be applied for coverage determinations:

- When dental benefit programs have established program-specific criteria that define when endodontic therapy is considered medically necessary and eligible for benefit coverage or that place other limitations on endodontic therapy coverage, Delta Dental of Ohio will apply that criteria when there is a need to evaluate endodontic therapy for medical necessity.
- Pulp testing, pulpal debridement, intraoperative radiographs, intracanal medicaments placed during multiple-appointment endodontic therapy and temporary restorations performed in conjunction with endodontic therapy are generally considered to be a component of the endodontic treatment of a tooth.
- The eligibility of incomplete endodontic therapy for benefit payment may vary dependent on the provisions of a particular dental plan. The procedure is generally not eligible for benefit payment when submitted in the case where a provider has failed to complete treatment on a tooth that is operable and restorable.
- Depending on the provisions of a particular dental plan, treatment of a root canal obstruction via the formation of a pathway past the obstruction to complete non-surgical endodontic therapy may be considered to be a component of the endodontic treatment of a tooth.
- Internal root repair of perforation defects is not eligible for benefit payment if the perforation was iatrogenically caused by the submitting provider.

Other Considerations

When the payment of benefits for a dental procedure by a member's dental plan depends on the application of clinical criteria to determine whether the procedure is medically necessary or clinically appropriate, the following additional information will be taken into consideration, if applicable:

- Individual patient characteristics including age, comorbidities, complications, progress of treatment, psychosocial situation and home environment
- Available services in the local dental delivery system and their ability to meet the member's specific dental care needs when clinical criteria are applied

Required Documentation

The decision to perform endodontic therapy on a patient should be based on a thorough clinical and radiographic examination that facilitates the formulation of an appropriate treatment plan. When the payment of benefits for endodontic therapy by a member's dental plan depends on a review of the procedure's medical necessity and clinical appropriateness, the treating practitioner should submit with the claim the following information as applicable from the patient's dental record. If the practitioner is unable to provide this information, benefit payment may be disapproved.

- Preoperative diagnostic quality radiographs showing the teeth treatment planned for endodontic therapy including the periapical areas
- Postoperative diagnostic radiographs showing the complete endodontic obturation of the teeth treated
- Documentation consistent with the patient record that explains the diagnostic rationale for providing endodontic therapy for a patient, including endodontic diagnoses (pulpal and periradicular) and any other supporting information from the patient's dental and medical histories

When determining coverage based on medical necessity or clinical appropriateness, Delta Dental of Ohio may request other clinical information relevant to a patient's care if needed to make coverage decisions.

Additional Information

The provision of dental advice and clinical treatment of patients is the sole responsibility of treating dentists, and these clinical criteria are not intended to restrict dentists from carrying out that responsibility or recommend treatment to their patients.

Delta Dental of Ohio's clinical criteria are developed and annually updated by a panel of licensed dental general practitioners and specialists serving on Delta Dental of Ohio's Utilization Management (UM) Committee, including the Dental Director and Utilization Management Director. The criteria are developed in alignment with evidence-based clinical recommendations, guidelines and parameters of care of leading nationally recognized dental public health organizations, health research agencies and professional organizations, credible scientific evidence published in peer-reviewed medical and dental literature, the curriculum of accredited dental schools, the regulatory status of relevant dental technologies, the rules and requirements of the Centers for Medicare and Medicaid Services, Delta Dental of Ohio national processing policies and input from practicing dentists. New and revised clinical criteria must be approved by the Dental Director and adopted by the UM Committee prior to release.

Federal or state statutes or regulations, dental plan contract provisions, local or national claim processing policies or other mandated requirements may take precedence over these clinical criteria.

Delta Dental of Ohio reserves the right to modify or replace this document at any time as appropriate to ensure the soundness, accuracy and objectivity of Delta Dental of Ohio's clinical criteria.

Appendix A

Complete Root Canal Therapy

- Root canal therapy is covered only for permanent teeth. Root canal therapy on primary teeth is not a covered service.
- Prior authorization is required for root canal therapy for three or more procedures planned/scheduled within six months. Root canal therapy must be performed only when the overall health of the dentition and periodontium is good except for the endodontically indicated tooth or teeth.
    - Treatment rendered under emergency conditions, when authorization is not possible, will still require that appropriate radiographs clearly showing the adjacent and opposing teeth, pre-operative radiograph and dated post-operative radiograph of the tooth treated with the claim for retrospective review for payment. In cases where pathology is not apparent, a written narrative justifying treatment is required.
- Radiographs, including periapicals, panoramic film or full mouth series of radiographs, submitted must show periapical radiolucency or widening of periodontal ligament.
- Symptoms should include chronic pain (as evidenced by sensitivity to hot or cold, percussion or palpation) fistula associated with the tooth or chronic infection. If pathology is not visible on the radiograph, root canal treatment should be clinically documented.
- The tooth must demonstrate at least 50 percent bone support.
- The fee for root canal therapy includes all diagnostic tests, evaluations, radiographs and postoperative treatments.
- Clinical documentation needed for authorization of procedure:
    - Authorizations for Root Canal therapy will not meet criteria if:
    - Gross periapical or periodontal pathosis is demonstrated radiographically (caries subcrestal or to the furcation, deeming the tooth non-restorable).
    - The general oral condition does not justify root canal therapy due to loss of arch integrity.
    - Root canal therapy is for third molars, unless they are an abutment for a partial denture.
    - Tooth does not demonstrate 50% bone support.
    - Root canal therapy is in anticipation of placement of an overdenture.
    - A filling material not accepted by the Federal Food and Drug Administration (e.g. Sargenti filling material) is used.
- In cases where the root canal filling does not meet standard of care:
    - The provider may be required to redo the procedure at no additional cost.
    - Any reimbursement already made for an inadequate service may be recouped after review of the circumstances.
    - Fill should be sufficiently close to the radiological apex to ensure that an apical seal is achieved, unless there is a curvature or calcification of the canal that limits the dentist’s ability to fill the canal to the apex.
    - Fill must be properly condensed/obturated. Filling material does not extend excessively beyond the apex.
- Other Considerations
    - Root canal therapy for permanent teeth includes diagnosis, extirpation of the pulp, shaping and enlarging the canals, temporary fillings, filling and obliteration of root canal(s), and progress radiographs, including a root canal fill radiograph.

D3310 Root canal therapy – anterior (excluding final restoration)

- Prior authorization is required for root canal therapy if three or more procedures are planned/scheduled within six months.
- Please see above clinical criteria guiding approval of root canal therapy and documentation required.

D3320 Root canal therapy – bicuspids (excluding final restoration)

- Prior authorization is required for root canal therapy if three or more procedures are planned/scheduled within six months.
- Please see above clinical criteria guiding approval of root canal therapy and documentation required.

D3330 Root canal therapy – molars (excluding final restoration)

- Prior authorization is required for root canal therapy if three or more procedures are planned/scheduled within six months.
- Please see above clinical criteria guiding approval of root canal therapy and documentation required.

References

American Association of Endodontists. AAE Consensus Conference Recommended Diagnostic Terminology. J Endod. 2009 Dec;35(12):1634.

American Association of Endodontists. (2024) AAE Position Statement: Dental Dams. Available from URL: https://www.aae.org/specialty/wp-content/uploads/sites/2/2024/06/DentalDams_PositionStatement_updated.pdf

American Association of Endodontists. (2016) Canal Preparation and Obturation: An Updated View of the Two Pillars of Nonsurgical Endodontics. Colleagues for Excellence. Available from URL: https://www.aae.org/specialty/wp-content/uploads/sites/2/2017/07/ecfefall2016canalpreparationandobturation.pdf

American Association of Endodontists. (2013) Endodontic Diagnosis. Colleagues for Excellence. Available from URL: https://www.aae.org/specialty/wp-content/uploads/sites/2/2017/07/endodonticdiagnosisfall2013.pdf

American Association of Endodontists. (2016) Guide to Clinical Endodontics. Available from URL: https://www.aae.org/specialty/clinical-resources/guide-clinical-endodontics/

American Association of Endodontists. (2020) Treatment Standards. Available from URL: https://www.aae.org/specialty/wp-content/uploads/sites/2/2018/04/TreatmentStandards_Whitepaper.pdf

American Dental Association, CDT 2025: Current Dental Terminology. American Dental Association, Chicago, IL, 2024.

Berman LH, Hargreaves KM, Rotstein I. Cohen's Pathways of the Pulp. 12th ed. Elsevier; 2021.

Farzaneh M, et al. Treatment outcome in endodontics: the Toronto study. Phases I and II: Orthograde retreatment. J Endod. 2004 Sep;30(9):627-33.

Gulabivala K, Ng YL. Factors that affect the outcomes of root canal treatment and retreatment-A reframing of the principles. Int Endod J. 2023 Mar:56 Suppl 2:82-115.

Lin LM, et al. Do procedural errors cause endodontic treatment failure? J Am Dent Assoc. 2005 Feb;136(2):187-93; quiz 231.

Ng Y-L, et al. Outcome of primary root canal treatment: systematic review of the literature -- Part 2. Influence of clinical factors. Int Endod J. 2008 Jan;41(1):6-31.

Peters OA, et al. Guidelines for non-surgical root canal treatment. Aust Endod J. 2024 Aug;50(2):202-214