

Dental Clinical Policy: Single Tooth Indirect Restorations

Reference Number: CP.DP.7

Last Review Date: 12/24

[Coding Implications](#)

[Revision Log](#)

See [Important Reminder](#) at the end of this policy for important regulatory and legal information.

Description

Single tooth indirect restorations (crowns, inlays, and onlays) are those that are fabricated outside the mouth. Indirect restorations are made on a replica of the prepared tooth in a dental laboratory or by using computer-aided design/computer-assisted manufacturing (CAD/CAM) either chairside or in the dental laboratory and finally cemented on to the prepared tooth. Local anesthetic, impressions, tooth preparation, temporary restoration, fitting, cementation, adjustment and any liners or bases are inclusive.

Policy/Criteria

- I. It is the policy of Envolve Dental Inc.® that single tooth indirect restorations are **medically necessary** when the following condition is met:
 - A. When molars have extensive caries involving four or more surfaces, undermining or loss of two or more cusps, or 50% loss of clinical crown;
 - B. When premolars have extensive caries involving three or more surfaces, undermining of at least one cusp, or 50% loss of clinical crown;
 - C. When anterior teeth have extensive caries involving four or more surfaces, undermining or loss of at least 50% of the incisal angle, or 50% loss of clinical crown;
 - D. When large, defective restorations on posterior teeth that will require a new restoration involving greater than 50% of the occlusal surface, and that can be seen on the radiographic image or intraoral photograph;
 - E. When fractures extend to the root surface;
 - F. When posterior teeth are treated with root canal therapy;
 - G. When anterior teeth are treated with root canal therapy and there is loss of at least 50% of the clinical crown or 50% of the incisal edge;
 - H. When there is documentation/narrative that the failing existing crown can only be resolved with a new crown, if crown failure and/or recurrent decay is not visible on radiographic image or intraoral photograph;
 - I. When the tooth has a minimum of 50% remaining bone support;
 - J. When symptomatic “cracked tooth syndrome” cases require supporting documentation of a clinical diagnosis, including the following:
 1. Chart notes documenting the clinical evaluation of chief complaint, patient symptoms, and results of tests conducted;
 2. Endodontic evaluation of the tooth, including verification that a root fracture does not exist, and that irreversible pulpitis does not exist;
 3. Evidence that either a direct amalgam or bonded resin restoration cannot adequately restore the tooth;
 - K. When full coverage indirect restoration of a primary tooth without a permanent successor (or where a permanent successor cannot erupt) may be considered if the root structure is intact and adequate, periodontal support does not show a loss of bone support of more than 25%;
 - L. When permanent teeth are fully erupted and the gingival margin is at the adult position;
 - M. When none of the following contraindications apply:
 1. When the patient is under the age of 15. This is due to incomplete passive eruption of the

- tooth, incomplete skeletal growth and gingival margin not at the adult position. These conditions will likely result in aesthetic failure and the need to replace the crown prior to its serviceable life span;
2. When tooth restoration can be accomplished with a direct amalgam or bonded resin restoration;
 3. When root resorption is present;
 4. When performed solely for cosmetic/aesthetic reasons (peg teeth, diastema closure, discoloration);
 5. When provided for alteration of vertical dimension;
 6. When performed for purposes of preventing future fracture, or to eliminate enamel craze lines (cracked tooth syndrome must be diagnosed with documented diagnostic tests and supported by a narrative; tooth must be symptomatic);
 7. When performed to treat non-pathologic wear/abrasion, or abfraction lesions in the absence of decay;
 8. When molars exhibit bone loss with a class II or III furcation involvement;
 9. When periodontally-compromised teeth (less than 50% remaining bone support), even with successful endodontics, unless the patient has undergone previous periodontal therapy/surgery and progress notes/periodontal notes indicate the tooth is stable;
 10. When fracture of porcelain not involving the margin or a functional ridge of an existing crown or onlay is not sufficient for replacement;
 11. When endodontically treated teeth exhibit any of the following conditions:
 - a. Any canal is not filled to within 2.0 mm of the radiographic apex;
 - b. Any canal is overfilled by 2.0 mm or more from the radiographic apex;
 - c. Any canal is incompletely filled;
 - d. A radiolucency remains more than six months after root canal treatment and the tooth is symptomatic (documentation supporting asymptomatic conditions must be submitted);
- N.** Required documentation to support medical necessity include the following:
1. Current (within the past six (6) months) and dated diagnostic quality periapical radiographic image(s) clearing showing the clinical crown and all root apices;
 2. Clinical chart notes supporting diagnostic and evaluation determinations;
 3. Intra-oral photographs where necessary to support conditions not clearly represented with radiographs;
 4. Recent (within six months) and dated six-point periodontal charting and history of previous periodontal therapy is required when radiographic evidence of bone loss exists.
- II.** It is the policy of Envolve Dental Inc.® that onlays are medically necessary when the following condition is met:
- A.** When a state-specific regulation or mandate requires the service for posterior teeth only and under the same conditions as crowns;
 - B.** When a state-regulated benefit and the required documentation for crown review is provided.
- III.** It is the policy of Envolve Dental Inc.® that inlays are not a covered benefit unless specifically noted by state-specific regulation(s):
- A.** Inlays are allowed only when specifically noted by state-specific regulations; however, inlays have not been proven to be superior to direct restorations and thus amalgam or bonded resin restorations are generally recommended instead of inlays.

Coverage Limitation/Exclusions

- I. Crowns, onlays, and inlays are covered once per tooth per 60 months unless specified otherwise by state Medicaid or federal Medicare regulations.
- II. Replacement of crowns, onlays, or inlays, if damage or breakage was directly related to provider error, is the responsibility of the dentist.
- III. If replacement is necessary because of patient non-compliance and the patient is deemed capable of compliance, the patient is liable for the cost of replacement.
 - a. Coverage Limitations/Exclusions – III is not applicable in the state of Ohio per OAC 5160-5-1 Addendum A.

Coding Implications

This clinical policy references Current Dental Terminology (CDT®). CDT® is a registered trademark of the American Dental Association. All CDT® codes and descriptions are copyrighted 2024, American Dental Association. All rights reserved. CDT® codes and CDT® descriptions are from the current manuals and those included herein are not intended to be all-inclusive and are included for informational purposes only. Codes referenced in this clinical policy are for informational purposes only. Inclusion or exclusion of any codes does not guarantee coverage. Providers should reference the most up-to-date sources of professional coding guidance prior to the submission of claims for reimbursement of covered services.

Retrospective review/analysis or fraud, waste and abuse initiatives that identify mis-coding (upcoding) resulting in higher reimbursement than allowed for the correctly coded service, or does not provide documentation supporting performing and/or completing claimed services may result in the recoupment of the identified monetary variance by any of the following means: a) from the payment for other claimed services; or b) directly from the provider.

Indirect restoration of the same tooth within 30 days of a direct restoration may result in the recoupment of any payment made for the direct restoration service by any of the following means: a) from the payment for the restorative service; b) from the payment for other claimed services; or c) directly from the provider placing the direct restoration service.

Indirect restoration of a tooth that results in an extraction of the same tooth within 30 days of the crown placement may result in the recoupment of any payment made for the indirect crown service by any of the following means: a) from the payment for the extraction service; b) from the payment for other claimed services; or c) directly from the provider placing the indirect crown service.

CDT® Codes	Description
D2510	Inlay – metallic, one surface
D2520	Inlay – metallic, two surfaces
D2530	Inlay – metallic, three or more surfaces
D2542	Onlay – metallic, two surfaces
D2543	Onlay – metallic, three surfaces
D2544	Onlay – metallic, four or more surfaces
D2610	Inlay – porcelain/ceramic, one surface
D2620	Inlay – porcelain/ceramic, two surface
D2630	Inlay – porcelain/ceramic, three or more surfaces
D2642	Onlay – porcelain/ceramic, two surfaces

D2643	Onlay – porcelain/ceramic, three surfaces
D2644	Onlay – porcelain/ceramic, four or more surfaces
D2650	Inlay – resin-based composite, one surface
D2651	Inlay – resin-based composite, two surfaces
D2652	Inlay – resin-based composite, three or more surfaces
D2662	Onlay – resin-based composite, two surfaces
D2663	Onlay – resin-based composite, three surfaces
D2664	Onlay – resin-based composite, four or more surfaces
D2710	Crown – resin-based composite (indirect)
D2712	Crown – ¾ resin-based composite (indirect)
D2720	Crown – resin with high noble metal
D2721	Crown – resin with predominantly base metal
D2722	Crown – resin with noble metal
D2740	Crown – porcelain/ceramic
D2750	Crown – porcelain fused to high noble metal
D2751	Crown – porcelain fused to predominantly base metal
D2752	Crown – porcelain fused to noble metal
D2753	Crown – porcelain fused to titanium and titanium alloys
D2780	Crown – ¾ cast high noble metal
D2781	Crown – ¾ cast predominantly base metal
D2782	Crown – ¾ cast noble metal
D2783	Crown – ¾ porcelain/ceramic
D2790	Crown – full cast high noble metal
D2791	Crown – full cast predominantly base metal
D2792	Crown – full cast noble metal
D2794	Crown – titanium and titanium alloys
D2799	Provisional Crown – further treatment or completion of diagnosis necessary prior to final impression

ICD-10-CM Diagnosis Codes that Support Coverage Criteria

ICD-10-CM Code	Description
K02.52	Dental caries on pit and fissure surface penetrating into dentin
K02.53	Dental caries on pit and fissure surface penetrating into pulp
K02.62	Dental caries on smooth surface penetrating into dentin
K02.63	Dental caries on smooth surface penetrating into pulp
K02.7	Dental root caries
K02.9	Dental carries, unspecified
K03.2	Erosion of teeth
K03.81	Cracked tooth
K03.89	Other specified diseases of hard tissues of teeth
K03.9	Disease of hard tissues of teeth, unspecified

S02.5XXA	Fracture of tooth (traumatic), initial encounter for closed fracture
S02.5XXB	Fracture of tooth (traumatic), initial encounter for open fracture
S02.5XXD	Fracture of tooth (traumatic), subsequent encounter for fracture with routine healing
S02.5XXG	Fracture of tooth (traumatic), subsequent encounter for fracture with delayed healing
S02.5XXK	Fracture of tooth (traumatic), subsequent encounter for fracture with nonunion
S02.5XXS	Fracture of tooth (traumatic), sequela

Reviews, Revisions, and Approvals	Approval Date
Update to Coverage Limitations/Exclusions for Ohio Medicaid	06/23
Annual Review	12/23
Annual Review	12/22
Annual Review	11/21
Policy revised	02/21
Format changes	06/20
Update clinical indications and contraindications	05/20
Update clinical indications and references	04/20
Revise indications for coverage	10/19
Annual Review	09/19
Annual Review	12/24

References

1. American Dental Association. CDT® 2024: Dental Procedure Codes. American Dental Association, 2024.
2. American Dental Association (ADA). Glossary of Clinical and Administrative Terms.
3. American Academy of Pediatric Dentistry. Guidelines for Restorative Dentistry. 2008.
4. American Academy of Pediatric Dentistry. Pediatric Dentistry: Reference Manual. 2022.
5. American Association of Endodontists (AAE). Endodontics: Colleagues for Excellence Newsletter; Restoration of Endodontically Treated Teeth: The Endodontist’s Perspective, Part 1. Spring/Summer 2004.
6. Angeletaki F, Gkogkos A, Papazoglou E, Kloukos D. Direct versus indirect inlay/onlay composite restorations in posterior teeth. A systematic review and meta-analysis. J Dent. 2016 Oct; 53:12-21.
7. da Veiga AM, Cunha AC, Ferreira DM, et al. Longevity of direct and indirect resin composite restorations in permanent posterior teeth: A systematic review and meta-analysis. J Dent. 2016 Nov; 54:1-12.
8. Hoelscher, B. “Passive eruption patterns in first molars.” MS (Master of Science) thesis, University of Iowa, 2011. Retrieved from <https://doi.org/10.17077/etd.8qvej2b2>.
9. Mendonca J, Neto R, Santiago S. et al. Direct resin composite restorations versus indirect composite inlays: One –Year Results J Contemp Dent Pract (Internet) 2010 May; 11 (3):025-032.
10. Pallesen U, Qvist, V. Composite fillings and inlays: An 11 year evaluation. Clin Oral Invest.2003; 7:71–79.

11. Ritter, A.V., Boushell, L.W. & Walter, R. Sturdevant's: Art and science of operative dentistry, 7th Edition, St. Louis: Elsevier, 2018.

Important Reminder

This clinical policy has been developed by appropriately experienced and licensed health care professionals based on a review and consideration of currently available generally accepted standards of dental practice; peer-reviewed dental/medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national dental and health professional organizations; views of dentists practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. Envolve Dental makes no representations and accepts no liability with respect to the content of any external information used or relied upon in developing this clinical policy. This clinical policy is consistent with standards of dental practice current at the time that this clinical policy was approved. "Envolv Dental" means a dental plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Envolv Benefit Options, Inc, or any of such health plan's affiliates, as applicable.

The purpose of this clinical policy is to provide a guide to dental and medical necessity, which is a component of the guidelines used to assist in making coverage decisions and administering benefits. It does not constitute a contract or guarantee regarding payment or results. Coverage decisions and the administration of benefits are subject to all terms, conditions, exclusions and limitations of the coverage documents (e.g., evidence of coverage, certificate of coverage, policy, contract of insurance, etc.), as well as to state and federal requirements and applicable Envolv Dental administrative policies and procedures.

This clinical policy is effective as of the date determined by Envolv Dental. The date of posting may not be the effective date of this clinical policy. This clinical policy may be subject to applicable legal and regulatory requirements relating to provider notification. If there is a discrepancy between the effective date of this clinical policy and any applicable legal or regulatory requirement, the requirements of law and regulation shall govern. Envolv Dental retains the right to change, amend or withdraw this clinical policy, and additional clinical policies may be developed and adopted as needed, at any time.

This clinical policy does not constitute dental or medical advice, dental treatment or dental care. It is not intended to dictate to providers how to practice dentistry. Providers are expected to exercise professional dental and medical judgment in providing the most appropriate care, and are solely responsible for the dental and medical advice and treatment of members. This clinical policy is not intended to recommend treatment for members. Members should consult with their treating dentist in connection with diagnosis and treatment decisions.

Providers referred to in this clinical policy are independent contractors who exercise independent judgment and over whom Envolv Dental has no control or right of control. Providers are not agents or employees of Envolv Dental.

This clinical policy is the property of Envolv Dental. Unauthorized copying, use, and distribution of this clinical policy or any information contained herein are strictly prohibited. Providers, members and their representatives are bound to the terms and conditions expressed herein through the terms of their contracts. Where no such contract exists, providers, members and their representatives agree to be

bound by such terms and conditions by providing services to members and/or submitting claims for payment for such services.

Note: For Medicaid members, when state Medicaid coverage provisions conflict with the coverage provisions in this clinical policy, state Medicaid coverage provisions take precedence. Please refer to the state Medicaid manual for any coverage provisions pertaining to this clinical policy.

Note: For Medicare members, to ensure consistency with the Medicare National Coverage Determinations (NCD) and Local Coverage Determinations (LCD), all applicable NCDs, LCDs, and Medicare Coverage Articles should be reviewed prior to applying the criteria set forth in this clinical policy. Refer to the CMS website at <https://www.cms.gov> for additional information.

©2024 Envolve Benefit Options, Inc. All rights reserved. All materials are exclusively owned by Envolve Benefit Options, Inc and are protected by United States copyright law and international copyright law. No part of this publication may be reproduced, copied, modified, distributed, displayed, stored in a retrieval system, transmitted in any form or by any means, or otherwise published without the prior written permission of Envolve Benefit Options, Inc. You may not alter or remove any trademark, copyright or other notice contained herein. Envolve Benefit Options® and Envolve Benefit Options, Inc® are registered trademarks exclusively owned by Envolve Benefit Options, Inc.