



# Dental Clinical Policy

**Subject:** Management of Peri-Implant Defects  
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## Description

This document addresses the procedure of management of peri-implant defects.

The plan performs review of treatment of peri-implant defects due to contractual requirements that necessitate benefits for dental services meet specific contract requirements. For example, plan contract(s) may require the provision of benefits for services that meet generally accepted standards of dental care at the lowest cost that properly addresses the patient's condition. The conclusion that a particular service is medically or dentally necessary and/or appropriate does not constitute an indication and/or warranty that the service requested is a covered benefit payable by the dental plan.

## Clinical Indications

Peri-implant defects are defined as an inflammatory process affecting the soft and hard tissues surrounding an osseointegrated dental implant. The array of periodontal pathogens found around failing implants are very similar to those found in association with various forms of periodontal disease. Treatment may include removing diseased tissue, antibiotics, improved oral hygiene regime, and reconstructive/regenerative procedures.

Dental review as it applies to accepted standards of care means dental services that a dentist, exercising prudent clinical judgment, provides to a patient for the purpose of evaluating, diagnosing or treating a dental injury or disease or its symptoms, and that are: in accordance with the generally accepted standards of dental practice; , in terms of type, frequency and extent and is considered effective for the patient's dental injury or disease; and is not primarily performed for the convenience of the patient or dentist, is not cosmetic and is not more costly than an alternative service.

For dental purposes, "generally accepted standards of dental practice" means:

- standards that are based on credible scientific evidence published in peer-reviewed, dental literature generally recognized by the practicing dental community
- specialty society recommendations/criteria
- the views of recognized dentists practicing in the relevant clinical area
- any other relevant factors from credible sources

## Criteria

The ideal management of peri-implant defects should focus both on infection control of the lesion, detoxification of the implant surface, and regeneration of lost support. Treatment options can be surgical or nonsurgical.

Peri-implant defects are diagnosed thorough clinical exam identifying swelling, redness, bleeding on probing, increased probing depth, soft tissue attachment, implant mobility, percussion sound(s), and occlusion. Signs of deep probing depth (> 5 mm), bleeding and/or suppuration on probing. Loss of supporting bone usually forms a circumferential crater defect. Radiographic examination is used to differentiate peri-implant mucositis from peri-implantitis.

Submission requirements for management of peri-implant defects must include current (within 12 months), dated, diagnostic, pretreatment radiographic image(s) that include the complete view of the implant. Clinical chart notes, intra-oral photographs, current dated 6-point charting including implant mobility, and history of periodontal therapy may also be required.

Some of the treatment modalities for peri-implant defects include but are not limited to:

1. Administration of systemic antibiotics alone.
2. Mechanical debridement with or without systemic antibiotic treatment.
3. Mechanical debridement with or without localized drug delivery and chlorhexidine oral rinses.
4. Mechanical debridement combined with LASER decontamination.
5. Surgical debridement.
6. Surgical debridement with guided bone regeneration (GBR) for repair of bony and soft-tissue defects.

Peri-implantitis and Peri-implant Mucositis are inflammatory processes affecting the soft and hard tissues surrounding an implant. These diseases are associated with loss of supporting bone, bleeding on probing, and occasionally suppuration. The etiopathogenesis of peri-implantitis is complex and related to a variety of factors that affect the peri-implant environment. These conditions can be influenced by the following factors:

1. Patient-related factors including systemic diseases (e.g., diabetes, osteoporosis) and prior dental history (periodontitis)
2. Social factors such as inadequate oral hygiene, smoking, and drug abuse
3. Parafunctional habits (bruxism and malocclusion).
4. The presence of inadequate keratinized mucosa as a result of disease process.
5. Iatrogenic factors such as faulty restorations, excess cement following restoration delivery, components that are not fully seated and connected, and/or loose components

#### Coding

*The following codes for treatments and procedures applicable to this document are included below for informational purposes. Inclusion or exclusion of a procedure, diagnosis or device code(s) does not constitute or imply member coverage or provider reimbursement policy. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage of these services as it applies to an individual member.*

**CDT** including but not limited to:

- D4245 Apically positioned flap
- D6100 Implant removal, by report
- D6101 Debridement of a peri-implant defect and surface cleaning of exposed implant surfaces, including flap entry and closure
- D6102 Debridement and osseous contouring of a peri-implant defect; includes surface cleaning of exposed implant surfaces and flap entry and closure
- D6103 Bone graft for repair of peri-implant defect - not including flap entry and closure or, when indicated, placement of a barrier membrane or biologic materials to aid in osseous regeneration
- D6081 Scaling and debridement in the presence of inflammation or mucositis of a single implant, including cleaning of the implant surfaces, without flap entry and closure. This procedure is not performed in conjunction with D1110, D4910 or D4346.

**ICD-10 CM** Diagnoses for Dental Diseases and Conditions: See the current CDT code book for detail

## References

1. Albrektsson T et al. Osseointegrated oral implants — A Swedish multicenter study of 8139 consecutively inserted Nobelpharma implants. *J Periodontol* 1988;5 9:287-296.
2. Berglundh T et al. A systematic review of the incidence of biological and technical complications in implant dentistry reported in prospective longitudinal studies of at least 5 years. *J Clin Periodontol* 2002; 29:197-212.
3. Renvert S. (2008), Nonsurgical treatment of peri-implant mucositis and peri-implantitis: a literature review. *J Clin Periodontol*. Sept. 2008; 35(8 Suppl):305-315
4. Rosenberg ES et al. Microbial differences in two clinically distinct types of failures of osseointegrated implants. *Clin Oral Implants Res* 1991; 2:135-144.
5. Schwarz F et al. (2006a). Nonsurgical treatment of moderate and advanced peri-implantitis lesions: a controlled clinical study. *Clinical Oral Investigations* 10, 279–288.
6. Klinge B et al. A systematic review of the effect of anti-infective therapy in the treatment of peri-implantitis. *J Clin Periodontol* 2002; 29:213-220.
7. Grunder U et al. Treatment of ligature-induced peri-implantitis using guided tissue regeneration: a clinical and histologic study in the beagle dog. *Int J Oral Maxillofac Implants* 1993; 8:282-292.
8. Lindhe J et al. (1992). Experimental breakdown of peri-implant and periodontal tissues. *Clin Oral Implants Res* 1992; 3:9-16.
9. Mombelli A, Lang NP. Antimicrobial treatment of peri-implant infections. *Clin Oral Implants Res* 1992; 3:162-168.
10. Schwarz F et al. (2006). Influence of different treatment approaches on nonsubmerged and submerged healing of ligature-induced peri-implantitis lesions: an experimental study in dogs. *Journal of Clinical Periodontology* Aug. 2006; 33(8):584-595.
11. Renvert S. Topical minocycline microspheres versus topical chlorhexidine gel as an adjunct to mechanical debridement of incipient peri-implant infections: a randomized clinical trial. *J Clin Periodontol*. May 2006; 33 (5): 362-369.
12. Leonhardt A. (2003). Five-year clinical, microbiological, and radiological outcome following treatment of peri-implantitis in man. *J Periodontol* 2003; 74:1415-1422.
13. Schwarz F et al. (2006b). Healing of intrabony peri-implantitis defects following application of a nanocrystalline hydroxyapatite (Ostim®) or a bovine-derived xenograft (Bio-Oss) in combination

with a collagen membrane (Bio-Gide). A case series. Journal of Clinical Periodontology 33; 491–499.

14. Schwarz F et al. (2008). Two-year clinical results following treatment of peri-implantitis lesions using a nanocrystalline hydroxyapatite or a natural bone mineral in combination with a collagen membrane. Journal of Clinical Periodontology 35; 80–87.
15. Froum, Scott DDS; Dental IQ; Review of the Treatment Protocols for Peri-implantitis:’ 10/12/2011
16. CDT 2024 Current Dental Terminology, American Dental Association.

**History**

Revision History	Version	Date	Nature of Change	SME
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