Surgical Periodontics: Mucogingival Procedures

Policy Number: DCG015.11
Effective Date: June 1, 2023

Instructions for Use

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Coverage Rationale

Tissue Graft Procedures

Pedicle soft tissue Graft, Autogenous connective tissue Graft, non-Autogenous connective tissue Graft and combined connective tissue and double pedicle Graft procedures are indicated for the following:

- Areas with less than 2 mm of attached gingiva
- Unresolved sensitivity in areas of Recession
- Progressive Recession or chronic inflammation
- Teeth with subgingival restorations where there is little or no attached gingiva to improve plaque control
- Ridge augmentation
- To increase vestibular depth for the correct fit of prosthesis
- To widen zone of attached gingiva for prosthetic abutment teeth
- To increase vestibular depth to allow proper oral hygiene techniques
- Gingival clefting

Pedicle soft tissue Graft, Autogenous connective tissue Graft, non-Autogenous connective tissue Graft and combined connective tissue and double pedicle Graft procedures are not indicated for the following:

- Roots covered with thin bony plates
- Individuals with an untreated medical condition
- Autogenous connective tissue Graft is not indicated when there is a broad, shallow palatal donor site, or excessively glandular or fatty submucosal tissue in donor site

Free soft tissue Graft procedure (including donor site surgery) is indicated for the following:

- Unresolved sensitivity in areas of Recession
- Progressive Recession or chronic inflammation
- Teeth with subgingival restorations where there is little or no attached gingiva to improve plaque control
- To increase vestibular depth for the correct fit of prosthesis
- To widen zone of attached gingiva for prosthetic abutment teeth
- To increase vestibular depth to allow proper oral hygiene techniques

- Gingival clefting
- Areas with less than 2 mm of attached gingiva
- Ridge augmentation

Free soft tissue Graft procedure is not indicated for the following:
- Broad, shallow palatal donor site
- Excessively glandular or fatty submucosal tissue in donor site
- A donor site with roots covered with thin bony plates
- Individuals with an untreated medical condition

Surgical Revision Procedure (per Tooth)

A surgical revision procedure may be indicated to correct an abnormal healing response that interferes with the therapeutic goals of the original surgical procedure.

Exclusions

- Any dental procedure performed solely for cosmetic/aesthetic reasons
- Procedures that are considered to be Experimental, Investigational or Unproven
- Any dental procedure not directly associated with dental disease
- Dental services that are not Necessary

Definitions

Autogenous Graft: Taken from one part of a patient's body and transferred to another (AAP).

Experimental, Investigational or Unproven Services: Medical, dental, surgical, diagnostic, or other health care services, technologies, supplies, treatments, procedures, drug therapies or devices that, are determined to be:
- Not approved by the U.S. Food and Drug Administration (FDA) to be lawfully marketed for the propose use and not identified in the American Hospital Formulary Service or the United States Pharmacopoeia Dispensing Information as appropriate for the proposed use; or
- Subject to review and approval by any institutional review board for the proposed use; or
- The subject of an ongoing clinical trial that meets the definition of a Phase 1, 2 or 3 clinical trial set forth in the FDA regulations, regardless of whether the trial is actually subject to FDA oversight; or
- Not demonstrated through prevailing peer-reviewed professional literature to be safe and effective for treating or diagnosing the condition or illness for which its use is proposed; or
- Pharmacological regimens not accepted by the American Dental Association (ADA) Council on Dental Therapeutics

Graft: Defined by any of the following (AAP 2007):
- Any tissue or organ used for implantation or transplantation
- A piece of living tissue placed in contact with injured tissue to repair a defect or supply deficiency
- To induce union between normally separate tissues

Necessary: Dental Services and supplies which are determined through case-by-case assessments of care based on accepted dental practices to be appropriate; and
- Needed to meet your basic dental needs; and
- Rendered in the most cost-efficient manner and type of setting appropriate for the delivery of the dental service; and
- Consistent in type, frequency and duration of treatment with scientifically based guidelines of national clinical, research, or health care coverage organizations or governmental agencies that are accepted; and
- Consistent with the diagnosis of the condition; and
- Required for reasons other than the convenience of you or your dental provider; and
- Demonstrated through prevailing peer-reviewed dental literature to be either:
  - Safe and effective for treating or diagnosing the condition or sickness for which its use is proposed; or
  - Safe with promising efficacy:
    - For treating a life-threatening dental disease or condition; and
    - In a clinically controlled research setting; and

- Using a specific research protocol that meets standards equivalent to those defined by the National Institutes of Health

Quadrant: One of the four equal sections into which the dental arches can be divided; begins at the midline of the arch and extends distally to the last tooth (ADA).

Recession: The migration of the marginal soft tissue to a point apical to the cemento-enamel junction of a tooth or the platform of a dental implant (AAP). Miller's Classification of Gingival Recession (Takei 2015):

- Class I: Marginal tissue Recession does not extend to the mucogingival junction. There is no loss of bone or soft tissue in the interdental area. This type of Recession can be narrow or wide.
- Class II: Marginal tissue Recession extends to or beyond the mucogingival junction. There is no loss of bone or soft tissue in the interdental area. This type of Recession can be subclassified into wide and narrow.
- Class III: Marginal tissue Recession extends to or beyond the mucogingival junction. There is bone and soft tissue loss interdentally or malpositioning of the tooth.
- Class IV: Marginal tissue Recession extends to or beyond the mucogingival junction. There is severe bone and soft tissue loss interdentally or severe tooth malposition.

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 policy 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
D4268	Surgical revision procedure, per tooth
D4270	Pedicle soft tissue graft procedure
D4273	Autogenous connective tissue graft, per tooth
D4275	Non-autogenous connective tissue graft (including recipient site and donor material) first tooth, implant, or edentulous tooth position in graft
D4276	Combined connective tissue and pedicle graft, per tooth
D4277	Free soft tissue graft procedure (including donor site surgery), first tooth or edentulous tooth position in graft
D4278	Free soft tissue graft procedure (including donor site surgery), each additional contiguous tooth or edentulous tooth position in same graft site
D4283	Autogenous connective tissue graft, each additional contiguous tooth
D4285	Non-autogenous connective tissue graft procedure (including recipient surgical site and donor material) - each additional contiguous tooth, implant or edentulous tooth position in same graft site
D4999	Unspecified periodontal procedure, by report

Description of Services

Mucogingival conditions are deviations from the normal anatomic relationship between the gingival margin and the mucogingival junction (MGJ). Surgical grafting procedures for mucogingival conditions are the gold standard to correct localized gingival defects and provide a functionally adequate zone of attached gingiva. Success of these procedures is highly dependent on individual patient considerations such as level of oral hygiene, smoking, and overall health status. The development of various regenerative technologies in medicine and dentistry is rapidly advancing and the technologies outlined in this policy are not all inclusive. For information on guided tissue regeneration with barrier membranes, refer to the Dental Clinical Policy titled Dental Barrier Membrane Guided Tissue Regeneration.

Pursuant to CA AB2585: While not common in dentistry, nonpharmacological pain management strategies should be encouraged if appropriate.

Clinical Evidence

In a 2018 Cochrane systematic review, Chambrone et al. sought to evaluate the efficacy of different root coverage procedures in the treatment of single and multiple recession-type defects. They included randomized controlled trials (RCTs) only of at least 6 months' duration evaluating recession areas (Miller's Class I or II ≥ 3 mm) and treated by means of root coverage periodontal plastic surgery (RCPPS) procedures. There were 48 RCTs in the review. Of these, the authors assessed one as at low risk of bias, 12 as at high risk of bias and 35 as at unclear risk of bias. The results indicated a greater reduction in gingival recession for subepithelial connective tissue grafts (SCTG) + coronally advanced flap (CAF) compared to guided tissue regeneration with resorbable membranes (GTR rm) + CAF. The authors concluded that the available evidence base indicates that in cases where both root coverage and gain in the width of keratinized tissue are expected, the use of subepithelial connective tissue grafts shows a slight improvement in outcome.

Zucchelli et al (2014) conducted a comparative short- and long-term controlled randomized clinical trial to compare short- and long-term root coverage and aesthetic outcomes of the coronally advanced flap (CAF) alone or in combination with a connective tissue graft (CTG) for the treatment of multiple gingival recessions. Fifty patients with multiple adjacent gingival recessions (≥ 2 mm) in the maxillary arch were enrolled. Twenty-five patients were randomly assigned to the control group (CAF), and the other 25 patients to the test group (CAF + CTG). Clinical outcomes were evaluated at 6 months, 1 and 5 years. The aesthetic evaluations were made 1 and 5 years after the surgery. No statistically significant difference was demonstrated between the two groups in terms of recession reduction and complete root coverage (CRC) at 6 months and 1 year. At 5 years, statistically greater recession reduction and probability of CRC, greater increase in buccal keratinized tissue height (KTH) and better contour evaluation made by an independent periodontist were observed in the CAF + CTG group. The authors concluded that despite no significant differences at 6 month and 1-year evaluations, CAF + CTG provided better CRC after 5 years than CAF alone.

Kuis et al. (2013) conducted a 5-year, split mouth-design randomized clinical trial, to evaluate the effectiveness of coronally advanced flap (CAF) alone versus CAF with connective tissue graft (CAF + CTG) in the treatment of single Miller Class I and II GR defects. Thirty-seven patients with 114 bilateral, single Miller Class I and II GR defects were treated with CAF on one side of the mouth and CAF + CTG on the other side. Clinical measurements (GR length [REC], keratinized tissue width [KT], complete root coverage [CRC], and percentage of root coverage [PRC]) were evaluated before surgery and after 6, 12, 24, and 60 months. There was a significant reduction of REC and increase of KT after surgery in both groups. CAF + CTG showed significantly better results for all evaluated clinical parameters in all observed follow-up periods. The authors concluded that both surgical procedures were effective in the treatment of single Miller Class I and II GR defects. The CAF + CTG procedure provided better long-term outcomes (60 months postoperatively) than CAF alone. Long-term stability of the gingival margin is less predictable for Miller Class II GR defects compared to those of Class I.

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Policy History/Revision Information

Date	Summary of Changes
02/01/2024	**Template Update** • Updated *Instructions for Use* to clarify this policy applies to both Commercial and Medicare Advantage plans
06/01/2023	**Supporting Information** • Updated *Description of Services*; added language pursuant to *CA AB2585* to indicate "while not common in dentistry, nonpharmacological pain management strategies should be encouraged if appropriate" • Archived previous policy version DCP015.10

Instructions for Use

This Dental Clinical Policy provides assistance in interpreting UnitedHealthcare standard and Medicare Advantage dental 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 policy, 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 Clinical Policy is provided for informational purposes. It does not constitute medical advice.