

Clinical Policy: Orthognathic Surgery

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[Coding Implications](#)

[Revision Log](#)

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

Description

This policy describes the medical necessity requirements for orthognathic surgery to improve form and function through correction of an underlying skeletal deformity.¹

Policy/Criteria

- I. It is the policy of health plans affiliated with Centene Corporation[®] that orthognathic surgery is **medically necessary** when all of the following are met:
 - A. When any of the following skeletal deformities (associated with masticatory malocclusion) are present:
 1. Anteroposterior discrepancy, one of the following:
 - a. Maxillary/mandibular incisor relationship: overjet of greater than 5 mm, or a zero to negative value (norm = 2 mm);
 - b. Maxillary/mandibular anteroposterior molar relationship discrepancy of 4 mm or greater (norm = 0 to 1 mm);
 2. Vertical discrepancy, one of the following:
 - a. Presence of a vertical facial skeletal deformity which is two or more standard deviations from published norms for accepted skeletal landmarks;
 - b. Open bite with no vertical overlap of anterior teeth or unilateral or bilateral posterior open bite greater than 2 mm;
 - c. Deep overbite with impingement or irritation of buccal or lingual soft tissues of the opposing arch;
 - d. Supraeruption of a dentoalveolar segment resulting from lack of occlusion when dentition in segment is intact;
 3. Transverse discrepancy, one of the following:
 - a. Presence of a transverse skeletal discrepancy which is two or more standard deviations from published norms;
 - b. Total bilateral maxillary palatal cusp to mandibular fossa discrepancy of 4 mm or greater, or a unilateral discrepancy of 3 mm or greater, given normal axial inclination of the posterior teeth;
 4. Anteroposterior, transverse or lateral asymmetries greater than 3 mm, with concomitant occlusal asymmetry.
 - B. Presence of any of the following functional impairments:
 1. Persistent difficulties with mastication and swallowing after causes such as neurological or metabolic diseases have been excluded;
 2. Malnutrition, significant weight loss, or failure-to-thrive secondary to facial skeletal deformity;
 3. Speech dysfunction directly related to a jaw deformity as determined by a speech and language pathologist;

CLINICAL POLICY

Orthognathic Surgery

4. Myofascial pain secondary to facial skeletal deformity that has persisted for at least six months, despite conservative treatment such as physical therapy and splints;
5. Airway obstruction, such as obstructive sleep apnea, documented by polysomnogram, when both of the following criteria are met:
 - a. Criteria for positive airway pressure (PAP) met and individual has proved intolerant to or failed a trial of PAP;
 - b. Individual has failed prior less invasive surgical procedures OR has craniofacial skeletal abnormalities that are associated with a narrowed posterior airway space and tongue-base obstruction.

II. It is the policy of Centene Corporation that orthognathic surgery is **not medically necessary** when any of the following are present:

- A. When the sole purpose is to improve appearance, regardless of whether it is associated with psychological disorders, because it is considered cosmetic in nature;
- B. When the member/enrollee is still developing and the deformity could be corrected with less intrusive treatment (e.g., expander or head gear).

Background

Orthognathic surgery is the surgical correction of abnormalities of the mandible, maxilla, or both. The underlying abnormality may be present at birth or may become evident as the patient grows and develops or may be the result of traumatic injuries or systemic diseases. Often, the severity of these deformities precludes adequate treatment through dental treatment alone. Such skeletal abnormalities may cause difficulties with eating or chewing, abnormal speech patterns, or dysfunction of the temporomandibular joint (TMJ). The overall goal of treatment is to improve function through correction of the underlying skeletal deformity.¹

Abnormalities generally occur as a result of a differential in growth between the upper facial skeleton and the lower facial skeleton, resulting in a discrepancy of the normal relationship that exists between the upper jaw (maxilla) and lower jaw (mandible). Genetic predisposition and environmental factors can influence the normal growth of the facial skeleton. Genetic causes can include cleft palate and other syndromes, such as Apert and Crouzon.^{1,2} Traumatic events can displace the normal structural elements or may disturb future normal growth. Other etiologies that can result in significant dentofacial anomalies include neoplasms, surgical resection and iatrogenic radiation. Developmental anomalies, however, are the most common condition. All of these deformities may result in diminished bite forces, restricted mandibular excursions, abnormal chewing patterns, speech deficits, malocclusions and/or abnormal facial appearance. There is a relationship between facial skeletal abnormalities and malocclusions, including Class II (disto-occlusion), Class III (mesio-occlusion) and open-bite (teeth do not meet) deformities.¹

The American Association of Oral and Maxillofacial Surgeons (AAOMS) classification of occlusion/malocclusion¹

Class I: Exists with the teeth in a normal relationship when the mesial-buccal cusp of the maxillary first permanent molar coincides with the buccal groove of the mandibular first molar.
Class II: Malocclusion occurring when the mandibular teeth are behind the normal relationship with the maxillary teeth. This can be due to a deficiency of the lower jaw (*Type 1*) or an excess of the upper jaw (*Type 2*).

CLINICAL POLICY
Orthognathic Surgery

Class III: Commonly referred to as an under bite, Class III malocclusion occurs when the lower dental arch is in front of (mesial to) the upper dental arch. People with this type of occlusion usually have a strong or protrusive chin, which can be due to either horizontal mandibular excess or horizontal maxillary deficiency.

Surgical Procedures

In orthognathic surgery, an osteotomy is made in the affected jaw, and the bones are repositioned in a more normal alignment. The bones are held in position with plates, screws and/or wires. Intermaxillary fixation, a procedure in which arch bars are placed on both jaws, may also be needed to provide added stability. Simultaneous osteotomies may be performed when deformities must be corrected in both jaws. Grafts from the ribs, hip or skull may be performed for patients with deficient bone tissue; alloplastic bone replacement may also be required. Orthognathic surgery, which was initially introduced in the 19th century, is generally performed under general anesthesia on an inpatient basis.³ The gold standard for treatment of malocclusion is orthodontic management followed by surgery; however, over the last few decades, support has been increasing for a surgery first approach.⁴ Although sometimes performed for cosmetic purposes, orthognathic surgery is generally considered to be medically necessary when performed to treat a significant abnormality (e.g., mandible forward to cranial base, increase mandibular length, short ramal length or obtuse gonial angle) that is causing considerable functional impairment.^{2,3}

Coding Implications

This clinical policy references Current Procedural Terminology (CPT®). CPT® is a registered trademark of the American Medical Association. All CPT codes and descriptions are copyrighted 2023, American Medical Association. All rights reserved. CPT codes and CPT descriptions are from the current manuals and those included herein are not intended to be all-inclusive and are included for informational purposes only. The following codes are for informational purposes only. They are current at time of review of this policy. 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.

| CPT®* Codes | Description |
|------------------------------|--|
| 21110 | Application of interdental fixation device for conditions other than fracture or dislocation, includes removal |
| 21120 | Genioplasty; augmentation (autograft, allograft, prosthetic material) |
| 21121 | Genioplasty; sliding osteotomy, single piece |
| 21122 | Genioplasty; sliding osteotomies, 2 or more osteotomies (eg, wedge excision or bone wedge reversal for asymmetrical chin) |
| 21123 | Genioplasty; sliding, augmentation with interpositional bone grafts (includes obtaining autografts) |
| 21125 | Augmentation, mandibular body or angle; prosthetic material |
| 21127 | Augmentation, mandibular body or angle; with bone graft, onlay or interpositional (includes obtaining autograft) |
| 21141 | Reconstruction midface, LeFort I; single piece, segment movement in any direction (eg, for Long Face Syndrome), without bone graft |

CLINICAL POLICY
Orthognathic Surgery

| CPT®* Codes | Description |
|------------------------------|---|
| 21142 | Reconstruction midface, LeFort I; two pieces, segment movement in any direction, without bone graft |
| 21143 | Reconstruction midface, LeFort I; three or more pieces, segment movement in any direction, without bone graft |
| 21145 | Reconstruction midface, LeFort I; single piece, segment movement in any direction, requiring bone grafts (includes obtaining autografts) |
| 21146 | Reconstruction midface, LeFort I; two pieces, segment movement in any direction, requiring bone grafts (includes obtaining autografts) (eg, ungrafted unilateral alveolar cleft) |
| 21147 | Reconstruction midface, LeFort I; three or more pieces, segment movement in any direction, requiring bone grafts (includes obtaining autografts) (eg, ungrafted bilateral alveolar cleft or multiple osteotomies) |
| 21150 | Reconstruction midface, LeFort II; anterior intrusion (eg, Treacher-Collins Syndrome) |
| 21151 | Reconstruction midface, LeFort II; any direction, requiring bone grafts (includes obtaining autografts) |
| 21154 | Reconstruction midface, LeFort III (extracranial), any type, requiring bone grafts (includes obtaining autografts); without LeFort I |
| 21155 | Reconstruction midface, LeFort III (extracranial), any type, requiring bone grafts (includes obtaining autografts); with LeFort I |
| 21159 | Reconstruction midface, LeFort III (extra and intracranial) with forehead advancement (eg, mono bloc), requiring bone grafts (includes obtaining autografts); without LeFort I |
| 21160 | Reconstruction midface, LeFort III (extra and intracranial) with forehead advancement (eg, mono bloc), requiring bone grafts (includes obtaining autografts); with LeFort I |
| 21188 | Reconstruction midface, osteotomies (other than LeFort type) and bone grafts (includes obtaining autografts) |
| 21193 | Reconstruction of mandibular rami, horizontal, vertical, C, or L osteotomy; without bone graft |
| 21194 | Reconstruction of mandibular rami, horizontal vertical, C, or L osteotomy; with bone graft (includes obtaining graft) |
| 21195 | Reconstruction of mandibular rami and/or body, sagittal split; without internal rigid fixation |
| 21196 | Reconstruction of mandibular rami and/or body, sagittal split; with internal rigid fixation |
| 21198 | Osteotomy, mandible, segmental |
| 21199 | Osteotomy, mandible, segmental; with genioglossus advancement |
| 21206 | Osteotomy, maxilla, segmental (eg, Wassmund or Schuchard) |
| 21208 | Osteoplasty, facial bones; augmentation (autograft, allograft, or prosthetic implant) |
| 21209 | Osteoplasty, facial bones; reduction |
| 21210 | Graft, bone; nasal, maxillary or malar areas (include obtaining graft) |
| 21215 | Graft, bone; mandible (includes obtaining graft) |

CLINICAL POLICY
Orthognathic Surgery

| CPT®* Codes | Description |
|-------------|---|
| 21244 | Reconstruction of mandible, extraoral, with transosteal bone plate (e.g., mandibular staple bone plate) |
| 21245 | Reconstruction of mandible or maxilla, subperiosteal implant; partial |
| 21246 | Reconstruction of mandible or maxilla, subperiosteal implant; complete |
| 21247 | Reconstruction of mandibular condyle with bone and cartilage autografts (includes obtaining grafts) (eg, for hemifacial microsomia) |
| 21248 | Reconstruction of mandible or maxilla, endosteal implant (eg, blade, cylinder); partial |
| 21249 | Reconstruction of mandible or maxilla, endosteal implant (eg, blade, cylinder); complete |

| Reviews, Revisions, and Approvals | Review Date | Approval Date |
|---|-------------|---------------|
| Policy developed. | 3/11 | 3/11 |
| All instances of “member” replaced with “member/enrollee.” Transferred to CNC template from WellCare CCG HS-87. References reviewed and updated. | 10/20 | 10/20 |
| Annual review complete. Updated 1.A.1.a. from >5mm to ≥5mm and updated 1.A.1.b.>4mm to ≥4mm. Added, "or irritation of buccal or lingual soft tissues of the opposing arch" to 1.A.2.c. Specified "maxillary" palatal cusp in 1.A.3.b. Minor verbiage updates with no clinical significance. Added CPT codes 21120, 21121, 21122, 21123, 21159, and 21160. Removed CPT codes 21248 and 21249. Removed ICD-10 code table. References reviewed, updated, and reformatted. Changed “review date” in the header to “date of last revision” and “date” in the revision log header to “revision date.” Reviewed by specialist. | 10/21 | 10/21 |
| Annual review completed. Reformatted criteria II. and added II.B. as additional non-medically necessary indication. Additional minor rewording with no clinical significance. Background updated. CDT codes removed from policy. References revised and updated. Reviewed by external and internal specialists. | 10/22 | 10/22 |
| Annual review. Added CPT codes 21248 and 21249. References reviewed and updated. | 10/23 | 10/23 |
| Annual review. Updated Criteria I.A.1.b. from greater than 4 mm to 4 mm or greater. Updated Criteria I.A.2.c. to include irritation of buccal or lingual soft tissues of the opposing arch. Added clarifying language to Criteria I.A.3.b. References reviewed and updated. Reviewed by internal specialist and external specialist. | 08/24 | 08/24 |

References

1. American Association of Oral and Maxillofacial Surgeons. Criteria for orthognathic surgery. https://www.aaoms.org/docs/practice_resources/clinical_resources/ortho_criteria.pdf. Published 2020. Accessed July 19, 2024.

CLINICAL POLICY

Orthognathic Surgery

2. American Academy of Pediatric Dentistry. Management of the developing dentition and occlusion in pediatric dentistry. *The Reference Manual of Pediatric Dentistry*. Chicago, III.: American Academy of Pediatric Dentistry; 2021:466 to 483.
3. Singh G, Kumar S, Gulati U. Orthognathic surgery. In: Singh G, ed. *Textbook of orthodontics*. 3rd ed. New Delhi India: Jaypee Brothers Medical Publishers (P) Ltd., 2015:298 to 307. ISBN 978-93-5152-440-3
4. Jandali D, Barrera JE. Recent advances in orthognathic surgery. *Curr Opin Otolaryngol Head Neck Surg*. 2020;28(4):246 to 250. doi:10.1097/MOO.0000000000000638
5. Chang YJ, Lai JP, Tsai CY, Wu TJ, Lin SS. Accuracy assessment of computer-aided three-dimensional simulation and navigation in orthognathic surgery (CASNOS). *J Formos Med Assoc*. 2020;119(3):701 to 711. doi:10.1016/j.jfma.2019.09.017
6. Lin HH, Lonic D, Lo LJ. 3D printing in orthognathic surgery - A literature review. *J Formos Med Assoc*. 2018;117(7):547 to 558. doi:10.1016/j.jfma.2018.01.008
7. Khechoyan DY. Orthognathic surgery: general considerations. *Semin Plast Surg*. 2013;27(3):133 to 136. doi:10.1055/s-0033-1357109
8. Abrahamsson C, Henrikson T, Bondemark L, Ekberg E. Masticatory function in patients with dentofacial deformities before and after orthognathic treatment-a prospective, longitudinal, and controlled study. *Eur J Orthod*. 2015;37(1):67-72. doi:10.1093/ejo/cju011
9. Huang CS, Hsu SS, Chen YR. Systematic review of the surgery-first approach in orthognathic surgery. *Biomed J*. 2014;37(4):184 to 190. doi:10.4103/2319-4170.126863
10. Buchanan, EP. Syndromes with craniofacial abnormalities. UpToDate. <http://www.uptodate.com>. Updated November 30, 2022. Accessed July 11, 2024.

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 medical practice; peer-reviewed medical literature; government agency/program approval status; evidence-based guidelines and positions of leading national health professional organizations; views of physicians practicing in relevant clinical areas affected by this clinical policy; and other available clinical information. The Health Plan 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 medical practice current at the time that this clinical policy was approved. “Health Plan” means a health plan that has adopted this clinical policy and that is operated or administered, in whole or in part, by Centene Management Company, LLC, or any of such health plan’s affiliates, as applicable.

The purpose of this clinical policy is to provide a guide to 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 Health Plan-level administrative policies and procedures.

This clinical policy is effective as of the date determined by the Health Plan. The date of posting may not be the effective date of this clinical policy. This clinical policy may be subject to

CLINICAL POLICY

Orthognathic Surgery

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. The Health Plan 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 medical advice, medical treatment or medical care. It is not intended to dictate to providers how to practice medicine. Providers are expected to exercise professional medical judgment in providing the most appropriate care, and are solely responsible for the medical advice and treatment of members/enrollees. This clinical policy is not intended to recommend treatment for members/enrollees. Members/enrollees should consult with their treating physician in connection with diagnosis and treatment decisions.

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Note: For Medicaid members/enrollees, 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/enrollees, 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 <http://www.cms.gov> for additional information.

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