

Clinical Policy: Orthognathic Surgery

Reference Number: CP.MP.202 Date of Last Revision: 10/21 Coding Implications
Revision Log

See <u>Important Reminder</u> at the end of this policy for important regulatory and legal information.

Description

This policy describes the medical necessity requirements for orthogoathic surgery.

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. Presence of any of the following skeletal deformities associated with masticatory malocclusion:
 - 1. Anteroposterior discrepancy, one of the following:
 - a. Maxillary/mandibular incisor relationship: overjet of ≥ 5 mm, or a zero to negative value (norm = 2 mm);
 - b. Maxillary/mandibular anteroposterior molar relationship discrepancy of ≥ 4 mm (norm = 0-1 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 >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 a unilateral discrepancy of ≥ 3 mm, given normal axial inclination of the posterior teeth;
 - 4. Anteroposterior, transverse or lateral asymmetries >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;
 - 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 health plans affiliated with Centene Corporation® that orthognathic surgery is **not medically necessary** for the sole purpose of improving individual appearance, regardless of whether they are associated with psychological disorders, because they are considered cosmetic in nature.

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 acquired causes can influence the normal growth of the facial skeleton from syndromes such as Apert and Crouzon or from facial clefts. 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 (distoocclusion), Class III (mesio-occlusion) and open-bite (teeth do not meet) deformities.

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

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*).

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.

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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 is generally performed under general anesthesia on an inpatient basis. Although sometimes performed for cosmetic purposes, orthognathic surgery is generally considered to be medically necessary when performed to treat a significant abnormality that is causing considerable functional impairment.

Coding Implications

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CPT®*	Description		
Codes			
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; prosthetic; 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		
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 in any direction, requiring		
	bone grafts (includes obtaining autografts)		



CPT®* Codes	Description		
21146	Reconstruction midface, LeFort I; two pieces, segment movement in any direction,		
21140	requiring bone grafts (includes obtaining autografts) (e,g., ungrafted unilateral alveolar cleft)		
21147	Reconstruction midface, LeFort I; three or more pieces, segment movement in any		
21147	direction, requiring bone grafts (includes obtaining autografts) (e.g., ungrafted bilateral alveolar cleft or multiple osteotomies)		
21150	Reconstruction midface, LeFort II; anterior intrusion (eg, Treacher-Collins		
21130	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 (e.g., 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)		
21244	Reconstruction of mandible, extraoral, with transosteal bone plate (e.g., mandibular staple bone plate)		
21245	Reconstruction of mandible or maxilla, superiosteal implant; partial		
21245	Reconstruction of mandible or maxilla, superiosteal implant; complete		
21247	Reconstruction of mandibular condyle with bone and cartilage autografts (includes		
	obtaining grafts) (e.g., for hemifacial microsomia)		



HCPCS ®*	Description
Codes	
D7940	Osteoplasty, for orthognathic deformities,
D7941	Osteotomy, mandibular rami
D7943	Osteotomy, mandibular rami with bone graft; includes obtaining the graft
D7944	Osteotomy, segmented or subapical
D7945	Osteotomy, body of mandible
D7946	LeFort I (maxilla, total)
D7947	LeFort I (maxilla, segmented)
D7948	LeFort II or LeFort III (osteoplasty of facial bones for midface hypoplasia or
	retrusion); without bone graft
D7949	LeFort II or LeFort III; with bone graft
D7950	Osseous, osteoperiosteal, or cartilage graft of the mandible or maxilla, autogenous
	or non-autogenous, by report
D7995	Synthetic graft, mandible or facial bones, by report

Reviews, Revisions, and Approvals	Review Date	Approval Date
Policy developed.	3/11	3/11
All instances of "member" replaced with "member/enrollee." Transferred	10/20	10/20
to CNC template from WellCare CCG HS-87. References reviewed and		
updated.		
Annual review complete. Updated 1.A.1.a. from >5mm to ≥5mm and	10/21	10/21
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.		

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 September 17, 2021.
- 2. Khechoyan DY. Orthognathic surgery: general considerations. *Semin Plast Surg*. 2013;27(3):133-136. doi:10.1055/s-0033-1357109
- 3. 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 Feb;37(1):67-72. doi: 10.1093/ejo/cju011. Epub 2014 Aug 22. PMID: 25150273.
- 4. Huang CS, Hsu SS, Chen YR. Systematic review of the surgery-first approach in orthognathic surgery. *Biomed J.* 2014;37(4):184-190. doi:10.4103/2319-4170.126863



- 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):701-711. 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):547-558. doi:10.1016/j.jfma.2018.01.008

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.

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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 <u>prior to</u> 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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