

## Orthognathic Surgery

**Effective:** March 1, 2021

**Next Review:** December 2021

**Last Review:** January 2021

### IMPORTANT REMINDER

Medical Policies are developed to provide guidance for members and providers regarding coverage in accordance with contract terms. Benefit determinations are based in all cases on the applicable contract language. To the extent there may be any conflict between the Medical Policy and contract language, the contract language takes precedence.

PLEASE NOTE: Contracts exclude from coverage, among other things, services or procedures that are considered investigational or cosmetic. Providers may bill members for services or procedures that are considered investigational or cosmetic. Providers are encouraged to inform members before rendering such services that the members are likely to be financially responsible for the cost of these services.

### DESCRIPTION

Orthognathic surgery involves the surgical manipulation of the facial skeleton, particularly the maxilla and mandible, to restore the proper anatomic and functional relationship in patients with dentofacial skeletal anomalies.<sup>[1]</sup>

### MEDICAL POLICY CRITERIA

#### Notes:

- This policy does not address the surgical management of sleep apnea, which is addressed in a separate medical policy (see Cross References). Also, this policy does not address temporomandibular joint (TMJ) surgical interventions, which may require pre-authorization.
- Member contracts for covered services vary. Member contracts may have specific language defining congenital and developmental anomalies. Member contract language takes precedence over medical policy. A congenital anomaly is defined as an anomaly that is present at birth (e.g., cleft palate). Developmental anomalies are conditions that develop some time after birth.

- I. Orthognathic surgery for the treatment of obstructive sleep apnea in adults may be considered **medically necessary** when the criteria in Surgery, Policy No. 166 are met.

- II. Orthognathic surgery to treat conditions other than obstructive sleep apnea may be considered **medically necessary** to correct jaw and craniofacial deformities when all of the following Criteria (A-D) are met:
- A. Significant functional impairment that is documented to be directly attributable to jaw and craniofacial deformities and to include one or more of the following:
    - 1. Chewing-induced trauma secondary to malocclusion; or
    - 2. Significantly impaired swallowing and/or choking due to inadequate mastication secondary to malocclusion; or
    - 3. Significant speech abnormalities (e.g., sibilant distortions or velopharyngeal distortion) which have not responded to speech therapy and are secondary to malocclusion; or
    - 4. Loss of masticatory or incisive function due to malocclusion or skeletal abnormality; or
    - 5. Airway restriction; and
  - B. Significant over- or underjet as documented by one of the following:
    - 1. In mandibular excess or maxillary deficiency, a reverse overjet of 3mm or greater; or
    - 2. In mandibular deficiency, an overjet of 5mm or greater; or
    - 3. Open bite of 4mm or greater; or
    - 4. Deep bite of 7mm or greater and/or palatal impingement of the mandibular teeth on the palatal tissue; or
    - 5. Less than six posterior teeth in functional opposition to other teeth secondary to a developmental or congenital growth abnormality (as opposed to a consequence of the loss of teeth); and
  - C. The functional impairment and over- or underjet are not correctable with non-surgical treatment modalities (e.g. orthodontics) and;
  - D. The following documentation is required to determine medical necessity for orthognathic surgery:
    - 1. Clinical record of history and physical performed demonstrating medical necessity of orthognathic surgery and when appropriate, any other pertinent diagnostic findings; and
    - 2. Intra-oral and extra-oral photographs; and
    - 3. Cephalometric and panoramic radiographs with either a written report or a summary of radiographic findings in the clinical record (e.g. cephalometric tracings).
- III. Reduction of the masseter muscle and bone may be considered **medically necessary** as a component of orthognathic surgery only when there is clinical documentation of the presence of masseteric hypertrophy.
- IV. Orthognathic surgery is considered **cosmetic** when Criteria are not met, including but not limited to when used for improvement of appearance.

- V. Genioplasty is considered **cosmetic** when performed in conjunction with orthognathic surgery for the sole purpose of improving appearance and/or profile.

*NOTE: A summary of the supporting rationale for the policy criteria is at the end of the policy.*

## CROSS REFERENCES

1. [Administrative Guidelines to Determine Dental vs Medical Services](#), Allied Health, Policy No. 35
2. [Prefabricated Oral Appliances for Obstructive Sleep Apnea](#), Allied Health, Policy No. 36
3. [Cosmetic and Reconstructive Surgery](#), Surgery, Policy No. 12
4. [Surgeries for Snoring, Obstructive Sleep Apnea Syndrome, and Upper Airway Resistance Syndrome](#), Surgery, Policy No. 166
5. [Hypoglossal Nerve Stimulation](#), Surgery, Policy No. 215

## SUMMARY

Orthognathic surgery improves health outcomes including functional impairments for some people with dentofacial skeletal anomalies that are not correctable with non-surgical treatment modalities. Therefore, orthognathic surgery may be considered medically necessary when policy Criteria are met.

The reduction of the masseter muscle and bone improves health outcomes for some people with masseteric hypertrophy when performed as a component of orthognathic surgery. Therefore, reduction of the masseter muscle and bone may be considered medically necessary when policy Criteria are met.

In all other situations, it is unclear how orthognathic surgery improves health outcomes or corrects functional impairments. Therefore, orthognathic surgery is considered cosmetic when policy Criteria are not met including but not limited to for the sole purpose of improving appearance.

## REFERENCES

1. Patel PK. Craniofacial, Orthognathic Surgery. [cited 1/20/2021]. Available from: <http://emedicine.medscape.com/article/1279747-overview>.
2. American Association of Oral and Maxillofacial Surgeons. Reconstructive Oral and Maxillofacial Surgery. [cited 1/20/2021]. Available from: [https://www.aaoms.org/docs/practice\\_resources/clinical\\_resources/ortho\\_criteria.pdf](https://www.aaoms.org/docs/practice_resources/clinical_resources/ortho_criteria.pdf).
3. SJ Ahn, JT Kim, DS Nahm. Cephalometric markers to consider in the treatment of Class II Division 1 malocclusion with the bionator. *Am J Orthod Dentofacial Orthop*. 2001;119(6):578-86. PMID: 11395700
4. KK Cain, JD Rugh, JP Hatch, CL Hurst. Readiness for orthognathic surgery: a survey of practitioner opinion. *Int J Adult Orthodon Orthognath Surg*. 2002;17(1):7-11. PMID: 11934058
5. JC Kim, AK Mascarenhas, BH Joo, KW Vig, FM Beck, PS Vig. Cephalometric variables as predictors of Class II treatment outcome. *Am J Orthod Dentofacial Orthop*. 2000;118(6):636-40. PMID: 11113798

6. FJ Mogavero, PH Buschang, LM Wolford. Orthognathic surgery effects on maxillary growth in patients with vertical maxillary excess. *Am J Orthod Dentofacial Orthop.* 1997;111(3):288-96. PMID: 9082851
7. JU Park, SH Baik. Classification of Angle Class III malocclusion and its treatment modalities. *Int J Adult Orthodon Orthognath Surg.* 2001;16(1):19-29. PMID: 11563392
8. WR Proffit, RP White, Jr. Who needs surgical-orthodontic treatment? *Int J Adult Orthodon Orthognath Surg.* 1990;5(2):81-9. PMID: 2074379
9. WR Proffit, C Phillips, JF Tulloch, PH Medland. Surgical versus orthodontic correction of skeletal Class II malocclusion in adolescents: effects and indications. *Int J Adult Orthodon Orthognath Surg.* 1992;7(4):209-20. PMID: 1298780
10. GS Throckmorton, PH Buschang, E Ellis, 3rd. Morphologic and biomechanical determinants in the selection of orthognathic surgery procedures. *J Oral Maxillofac Surg.* 1999;57(9):1044-56; discussion 56-7. PMID: 10484105
11. PM Thomas. Orthodontic camouflage versus orthognathic surgery in the treatment of mandibular deficiency. *J Oral Maxillofac Surg.* 1995;53(5):579-87. PMID: 7722728
12. GS Throckmorton, E Ellis, 3rd, DP Sinn. Functional characteristics of retrognathic patients before and after mandibular advancement surgery. *J Oral Maxillofac Surg.* 1995;53(8):898-908; discussion 08-9. PMID: 7629618
13. MR Tucker. Orthognathic surgery versus orthodontic camouflage in the treatment of mandibular deficiency. *J Oral Maxillofac Surg.* 1995;53(5):572-8. PMID: 7722727
14. LD Vallino. Speech, velopharyngeal function, and hearing before and after orthognathic surgery. *J Oral Maxillofac Surg.* 1990;48(12):1274-81; discussion 81-2. PMID: 2231145
15. JJ Wilmot, HD Barber, DG Chou, KW Vig. Associations between severity of dentofacial deformity and motivation for orthodontic-orthognathic surgery treatment. *Angle Orthod.* 1993;63(4):283-8. PMID: 8297053
16. LM Wolford, SC Karras, P Mehra. Considerations for orthognathic surgery during growth, part 1: mandibular deformities. *Am J Orthod Dentofacial Orthop.* 2001;119(2):95-101. PMID: 11174553
17. LM Wolford, SC Karras, P Mehra. Considerations for orthognathic surgery during growth, part 2: maxillary deformities. *Am J Orthod Dentofacial Orthop.* 2001;119(2):102-5. PMID: 11174554
18. LM Wolford, P Mehra, O Reiche-Fischel, CA Morales-Ryan, P Garcia-Morales. Efficacy of high condylectomy for management of condylar hyperplasia. *Am J Orthod Dentofacial Orthop.* 2002;121(2):136-50; discussion 50-1. PMID: 11840126
19. HM Zarrinkelk, GS Throckmorton, E Ellis, 3rd, DP Sinn. Functional and morphologic changes after combined maxillary intrusion and mandibular advancement surgery. *J Oral Maxillofac Surg.* 1996;54(7):828-37. PMID: 8676227

## CODES

Codes	Number	Description
CPT	21085	Impression and custom preparation; oral surgical splint
	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, two or more osteotomies (e.g., wedge excision or bone wedge reversal for asymmetrical chin)
	21123	Genioplasty; sliding, augmentation with interpositional bone grafts (includes obtaining autografts)

<b>Codes</b>	<b>Number</b>	<b>Description</b>
	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 (e.g., 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 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) (e.g., ungrafted unilateral alveolar cleft)
	21147	Reconstruction midface, LeFort I; three or more pieces, segment movement in any direction, requiring bone grafts (includes obtaining autografts) (e.g., ungrafted bilateral alveolar cleft or multiple osteotomies)
	21150	Reconstruction midface, LeFort II; anterior intrusion (e.g., 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 (e.g., mono bloc), requiring bone grafts (includes obtaining autografts); without LeFort I
	21160	Reconstruction midface, LeFort III (extra and intracranial) with forehead advancement (e.g., 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
	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;
	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 (includes obtaining graft)
	21215	Graft, bone; mandible (includes obtaining graft)
	21230	Graft; rib cartilage, autogenous, to face, chin, nose or ear (includes obtaining graft)
	21295	Reduction of masseter muscle and bone (eg, for treatment of benign masseteric hypertrophy); extraoral approach

<b>Codes</b>	<b>Number</b>	<b>Description</b>
	21296	Reduction of masseter muscle and bone (eg, for treatment of benign masseteric hypertrophy); intraoral approach
CDT	D7940	Osteoplasty – for orthognathic deformities
	D7941	Osteotomy; mandibular rami
	D7943	Osteotomy; mandibular rami with bone graft; includes obtaining the graft
	D7944	Osteotomy; segmented of subapical – per sextant or quadrant
	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 facial bones – autogenous or nonautogenous, by report
	D7995	Synthetic graft – mandible or facial bones, by report
	D7996	Implant – mandible for augmentation purposes (excluding alveolar ridge), by report

**Date of Origin:** October 2004