



Subject: Orthognathic Surgery

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DESCRIPTION

Orthognathic surgery is an open surgical procedure that corrects anomalies or malformations of the lower jaw or the upper jaw. Anomalies may be present at birth or become more distinct as the person develops or may be the result of traumatic injuries or neoplasms.

The America Association of Oral and Maxillofacial Surgeons classify occlusion/malocclusion in to the following three categories:

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 occurs when the mandibular teeth are distal or behind the normal relationship with the maxillary teeth. This can be due to a deficiency of the lower jaw or an excess of the upper jaw, and therefore, presents two types: (1) Division 1 is when the mandibular arch is behind the upper jaw with a consequential protrusion of the upper front teeth. (2) Division II exists when the mandibular teeth are behind the upper teeth, with a retrusion of the maxillary front teeth. Both of these malocclusions have a tendency toward deep bite because of the uncontrolled migration of the lower front teeth upwards.

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

This policy does not address orthognathic surgery for TMJ or to correct obstructive sleep apnea. Please refer to MCG guideline A-0247 or A-0248 as indicated. MCG should also be utilized for orthognathic surgery to treat traumatic jaw fracture(s).

INDICATIONS FOR NURSE APPROVAL

The OSU Health Plan considers orthognathic surgery medically necessary for correction of the following skeletal deformities of the maxilla or mandible when it is documented that these skeletal deformities are contributing to significant dysfunction, and where the severity of the deformities precludes adequate treatment through dental therapeutics and orthodontics alone:

- 1) Significant facial skeletal deformities, maxillary and/or mandibular facial skeletal deformities associated with masticatory malocclusion:
 - a) Anteroposterior discrepancies (established norm is 2 mm)
 - i) Maxillary/Mandibular incisor relationship:
 - (1) Horizontal overjet of 5 mm or more.

- (2) Horizontal overjet of zero to a negative value.
- ii) Maxillary/Mandibular anteroposterior molar relationship discrepancy of 4 mm or more (norm 0 to 1 mm).
- iii) Note: These values represent two or more standard deviations from published norms.
- b) Vertical discrepancies
 - i) Presence of a vertical facial skeletal deformity which two or more standard deviations from published norms for accepted skeletal landmarks
 - ii) Open Bite
 - (1) No vertical overlap of anterior teeth.
 - (2) Unilateral or bilateral posterior open bite greater than 2 mm.
 - iii) Deep overbite with impingement or irritation of buccal or lingual soft tissues of the opposing arch.
 - iv) Supraeruption of a dentoalveolar segment due to lack of occlusion.
- c) Transverse Discrepancies
 - i) Presence of a transverse skeletal discrepancy, which is two or more standard deviations from published norms.
 - ii) 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.
- d) Asymmetries
 - i) Anteroposterior, transverse or lateral asymmetries greater than 3 mm with concomitant occlusal asymmetry.

The following documentation should be provided for review: a written explanation of the member's clinical course, including dates and nature of any previous treatment; physical evidence of a skeletal, facial or craniofacial deformity defined by study models and pre-orthodontic imaging; and a detailed description of the functional impairment considered to be the direct result of the skeletal abnormality.

PHYSICIAN DISCUSSION POINTS

Coverage is not allowed when the defect or deformity has no adverse impact on nutritional intake, speech, vision or other necessary medical physiologic function and the primary purpose is to improve the appearance of the face or to improve dental function. Documentation is required to demonstrate that a medical physiological functional impairment is present and is being addressed. (See "Indications".) In the absence of such documentation, the procedure may be denied as not medically necessary.

REASONS FOR PHYSICIAN REVIEWER DENIAL

1. No documentation of a defect or deformity of the facial and/or jaw bones per the indications for approval.
2. No documentation of a medical physiological functional impairment present and being addressed.
3. No documentation of acquired conditions including local trauma, infection, neoplasm, inflammatory processes or vascular insufficiency which result in destruction or deformity of the affected bone(s).
4. No documentation of a defect or deformity which has an adverse impact on nutritional intake, speech, vision or other necessary medical physiologic function.
5. Documentation that the primary purpose is to improve the appearance of the face or to improve dental function

EXCLUSIONS

Expenses associated with the orthodontic phase of care (both pre- and post-surgical) are considered dental in nature and are not covered under OSU Health Plan's medical benefits.

RELATED CPT/HCPC CODES

CPT codes covered if selection criteria are met:	
21083	Impression and custom preparation; palatal lift prosthesis
21084	speech aid prosthesis
21085	oral surgical splint
21088	facial prosthesis
21141	Reconstruction midface, Lefort I; single piece, segment movement in any direction (e.g., for Long Face Syndrome), without bone graft
21142	2 pieces, segment movement in any direction, without bone graft
21143	3 or more pieces, segment movement in any direction, without bone graft
21145	single piece, segment movement in any direction, requiring bone grafts (includes obtaining graft)
21146	2 pieces, segment movement in any direction, requiring bone grafts (includes obtaining autografts) (e.g., ungrafted unilateral alveolar cleft)
21147	3 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	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	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	with Lefort I
21181	Reconstruction by contouring of benign tumor of cranial bones (e.g., fibrous dysplasia), extracranial
21182	Reconstruction of orbital walls, rims, forehead, nasoethmoid complex following intra- and extracranial excision of benign tumor of cranial bone (e.g., fibrous dysplasia) with multiple autografts (includes obtaining grafts); total area of bone grafting less than 40 sq cm
21183	total area of bone grafting greater than 40 sq cm but less than 80 sq cm
21184	total area of bone grafting greater than 80 sq cm
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	with bone graft (includes obtaining graft)
21195	Reconstruction of mandibular rami and/or body, sagittal split; without internal rigid fixation
21196	with internal rigid fixation
21198	Osteotomy, mandible, segmental;
21199	with genioglossus advancement
21206	Osteotomy, maxilla, segmental (e.g., Wassmund or Schuchard)
21208	Osteoplasty, facial bones; augmentation (autograft, allograft, or prosthetic implant)
21209	reduction
21210	Graft, bone; nasal, maxillary or malar areas (includes obtaining graft)
21215	mandible (includes obtaining graft)
21230	Graft; rib cartilage, autogenous, to face, chin, nose or ear (includes obtaining graft)
21235	ear cartilage, autogenous, to nose or ear (includes obtaining graft)
21240	Arthroplasty, temporomandibular joint, with or without autograft (includes obtaining graft)
21242	Arthroplasty, temporomandibular joint, with allograft
21243	Arthroplasty, temporomandibular joint, with prosthetic joint replacement
21247	Reconstruction of mandibular condyle with bone and cartilage autografts (includes obtaining grafts) (e.g., for hemifacial microsomia)
21255	Reconstruction of zygomatic arch and glenoid fossa with bone and cartilage (includes obtaining autografts)
21270	Malar augmentation, prosthetic material
21275	Secondary revision of orbitocraniofacial reconstruction
21295	Reduction of masseter muscle and bone (e.g., for treatment of benign masseteric hypertrophy); extraoral approach
21296	intraoral approach
42200 - 42281	Repair of palate

REFERENCES AND ATTACHMENTS

1. *Orthognathic Surgery*. (January 19, 1996). The Hayes Directory (reviewed 3/01)
2. Han H, Davidson WM. A useful insight into 2 occlusal indexes: HLD(Md) and HLD(CalMod). *Am J OrthodDentofacial Orthop*. 2001; 120(3):247-53.
3. Incisivo V, Silvestri A. The reliability and variability fo SN and PFH reference planes in cephalometric diagnosis and therapeutic planning of dentomaxillofacial malformations. *J Craniofacial Surg*. 2000; 11(1):31-8.
4. Oguri Y, YamadaK, Fukui T, et al. Mandibular movement and frontal craniofacial morphology in orthognathic surgery patients with mandibular deviation and protrusion. *J Oral Rehabil*. 2003; 30(4):392-400.
5. Park JE, Baik SH. Classification of angle Class III malocclusion and its treatment modalities. *Int J Adult Orthod Orthognath Surg*. 2001; 16():19-29.
6. Ruf S, Pancherz H. Orthognathic surgery and dentofacial orthopedics in adult Class II Division 1 treatment: mandibular sagittal split osteotomy versus Herbst appliance. *AM J Orthod Dentofacial Orthop*. 2004; 126(2): 140-52.

7. Stellzig-Eisenhauser A, Lux CJ, Schuster G. Treatment decision in adult patients with Class III malocclusions: orthodontic or orthognathic surgery? AM JOrthod Dentofacial orthop. 2002; 122(1):27-38.
8. Wolford LM, Karras SC, Mehra P. Consideration for orthognathic surgery during growth, part I: mandibular deformities. AM J Orthod Dentofacial Orthop. 2001; 119(2):95-101.
9. Wolford LM, Karras SC, Mehra P. Consideration for orthognathic surgery during growth, part 2: maxillary deformities. Am J Orthod Dentofacial Orthop. 2001; 119(2):102-5.
10. American Academy of Oral and Maxillofacial Surgeons (AAOMS). Criteria for orthognathic surgery. Published 2017. Available at: https://www.aaoms.org/docs/practice_resources/clinical_resources/ortho_criteria.pdf. Accessed September 19, 2018.
11. Tulloch JF, Proffit WR, Phillips C. Outcomes in a 2-phase randomized clinical trial of early Class II treatment. AM J Orthod Dentofacial Orthop. 2004;125(6):657-667.
12. Chanchareonsock N, Samman N, Whitehill TL. The effect of cranio-maxillofacial osteotomies and distraction osteogenesis on speech and velopharyngeal status: A critical review. Cleft Palate Craniofac J. 2006;43(4):477-487.