Orthognathic Surgery

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Background

Orthognathic surgery

A class of surgical procedures designed to realign the maxillofacial skeletal structures with each other and with the other craniofacial structures. This surgery usually involves the maxilla and/or mandible, but other bony components may be involved as well. Orthognathic surgery can be performed to correct malocclusion, which cannot be improved with routine orthodontic therapy and where the functional impairments are directly caused by the malocclusion. The surgical goal is to improve function through correcting the underlying skeletal deformity that contributes to chewing, breathing and swallowing dysfunction.

Maxillary advancement

A type of orthognathic surgery that may be necessary to improve the facial contour and normalize dental occlusion when there is a relative deficiency of the midface region. This is done by surgically moving the maxilla with sophisticated bone mobilization techniques and fixing it securely into place.

Mandibular surgery

Can be performed in conjunction with or separate from maxillary surgery. The mandible can be advanced, set back, tilted or augmented with bone grafts. A combination of these procedures may be necessary. Following any significant surgical movement of the mandible, fixation may be accomplished with mini-plates and screws or with a combination of interosseous wires and intermaxillary fixation (IMF). Rigid fixation (screws and plates) has the advantage of needing limited or no IMF. However, if interosseous wiring is used, IMF is maintained for approximately 6 weeks.

Malocclusion

Imperfect contact with the mandibular and maxillary teeth.

- 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 I 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 front teeth, with a retrusion of the maxillary front teeth. Both of these malocclusions have a tendency toward a deep bite because of the uncontrolled migration of the lower front teeth upwards. Commonly referred to as an overbite.
- 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. Commonly referred to as an under bite.
Occlusion | Bringing the opposing surfaces of the teeth of the two jaws (mandible and maxilla) into contact with each other.
Supraeruption | The occurrence of a tooth continuing to grow out of the gum if the opposing tooth in the opposite jaw is missing.
Genioplasty | Plastic surgery of the chin (See Limitations/Exclusions)

Related Medical Guidelines

**Cosmetic Surgery Procedures**

**Obstructive Sleep Apnea Diagnosis and Treatment**

**Guideline**

Note: Expenses associated with the pre-and-post surgical orthodontic component of are considered dental in nature and not covered under the member’s Medical Benefit.

I. Orthognathic surgery is medically necessary for correcting the following skeletal deformities of the maxilla or mandible when the deformities are directly attributable to significant dysfunction that precludes dental/orthodontic therapeutics or when intra-oral trauma to soft tissues occurs through mastication secondary to malocclusion:

A. **Anteroposterior discrepancies defined as either:**
   1. Maxillary/mandibular incisor relationship; any:
      a. Horizontal overjet of $\geq 5$ millimeter (mm)
      b. Zero to a negative value (norm 2mm)
   2. Maxillary/mandibular anteroposterior molar relationship discrepancy of $\geq 4$ mm (norm is 0–1 mm)

   *Numeric values above represent $\geq 2$ standard deviations (SDs) from published norms.*

B. **Vertical discrepancies; defined as any:**
   1. Vertical facial skeletal deformity of $\geq 2$ SDs from norms for accepted skeletal landmarks
   2. Open Bite; either:
      a. No vertical overlap of anterior teeth
      b. Unilateral or bilateral posterior open bite $> 2$ mm
   3. Deep overbite with impingement or irritation of buccal or lingual soft tissues of the opposing arch
   4. Supraeruption of a dentoalveolar segment secondary to lack of opposing occlusion that creates dysfunction not amenable to conventional prosthetics

C. **Transverse discrepancies; defined as either:**
   1. Transverse skeletal discrepancy $\geq 2$ SDs from norms
   2. Total bilateral maxillary palatal cusp to mandibular fossa discrepancy of $\geq 4$ mm, or unilateral discrepancy $\geq 3$ mm (given normal axial inclination of the posterior teeth)

D. **Asymmetries; defined as anteroposterior, transverse or lateral asymmetries $> 3$ mm with concomitant occlusal asymmetry**
II. Facial Skeletal Discrepancies Associated with Documented Sleep Apnea, Airway Defects, and Soft Tissue Discrepancies

Orthognathic surgery is considered medically necessary for members with underlying craniofacial skeletal deformities that are contributing to obstructive sleep apnea. (See Obstructive Sleep Apnea)

III. Speech Impairments

Orthognathic surgery is medically necessary for the treatment of speech abnormalities (as determined by a speech pathologist or therapist) when the impairment is secondary to a malocclusion (e.g., from cleft deformity), which is refractory to either:

1. Orthodontia management
2. At least 6 months of speech therapy

Documentation

The following documentation must be submitted to the plan for medical necessity consideration:

1. Evidence of skeletal, facial or craniofacial deformity demonstrated by study models and pre-orthodontic imaging
2. Medical record detailing the following:
   a. Objective findings (i.e., functional impairment directly attributable to skeletal abnormality)
   b. Symptoms (e.g., dysphagia, choking), clinical course/treatment history

Limitations/Exclusions

1. Orthognathic surgery is considered cosmetic (and therefore not medically necessary) when anatomic variation is normal and the member wishes to alter physical appearance in order to improve aesthetics. (Psychological motivation [e.g., self esteem] is not a factor for plan-consideration).
2. Three-dimensional virtual treatment planning of orthognathic surgery regarded as investigational and not medically necessary, as effectiveness has not been established.
3. Orthognathic surgery is considered investigational for correcting articulation disorders (except in the presence of severe cleft palate; indicated above) and other impairments in the production of speech due to insufficient evidence of therapeutic value in the published peer-reviewed medical literature.
4. Orthognathic surgery is not considered medically necessary the correction of sibilant sound-class distortions or other speech quality distortions (e.g., hyper-nasal or hypo-nasal speech) because the distortions do not cause functional impairment.
5. Condylar positioning devices in orthognathic surgery are experimental and investigational because their effectiveness in orthognathic surgery has not been established.
6. Orthognathic surgery for temporomandibular joint disease (TMJ) or myofascial pain dysfunction is considered investigational due to insufficient evidence of therapeutic value for these indications.
7. Genioplasty is considered cosmetic and not medically necessary.

Applicable Procedure Codes

<table>
<thead>
<tr>
<th>Procedure Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>21076</td>
<td>Impression and custom preparation; surgical obturator prosthesis</td>
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<tr>
<td>21079</td>
<td>Impression and custom preparation; interim obturator prosthesis</td>
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<tr>
<td>21080</td>
<td>Impression and custom preparation; definitive obturator prosthesis</td>
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<tr>
<td>21081</td>
<td>Impression and custom preparation; mandibular resection prosthesis</td>
</tr>
<tr>
<td>21082</td>
<td>Impression and custom preparation; palatal augmentation prosthesis</td>
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<tr>
<td>21083</td>
<td>Impression and custom preparation; palatal lift prosthesis</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
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<td>-----------------------------------------------------------------------------</td>
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<tr>
<td>21120</td>
<td>Genioplasty; augmentation (autograft, allograft, prosthetic material)</td>
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<td>21121</td>
<td>Genioplasty; sliding osteotomy, single piece</td>
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<tr>
<td>21122</td>
<td>Genioplasty; sliding osteotomies, 2 or more osteotomies (eg, wedge excision or bone wedge reversal for asymmetrical chin)</td>
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<tr>
<td>21123</td>
<td>Genioplasty; sliding, augmentation with interpositional bone grafts (includes obtaining autografts)</td>
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<td>21125</td>
<td>Augmentation, mandibular body or angle; prosthetic material</td>
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<td>21127</td>
<td>Augmentation, mandibular body or angle; with bone graft, onlay or interpositional (includes obtaining autograft)</td>
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<td>21141</td>
<td>Reconstruction midface, LeFort I; single piece, segment movement in any direction (eg, for Long Face Syndrome), without bone graft</td>
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<tr>
<td>21142</td>
<td>Reconstruction midface, LeFort I; 2 pieces, segment movement in any direction, without bone graft</td>
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<tr>
<td>21143</td>
<td>Reconstruction midface, LeFort I; 3 or more pieces, segment movement in any direction, without bone graft</td>
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<tr>
<td>21145</td>
<td>Reconstruction midface, LeFort I; single piece, segment movement in any direction, requiring bone grafts (includes obtaining autografts)</td>
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<tr>
<td>21146</td>
<td>Reconstruction midface, LeFort I; 2 pieces, segment movement in any direction, requiring bone grafts (includes obtaining autografts) (eg, ungrafted unilateral alveolar cleft)</td>
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<tr>
<td>21147</td>
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<tr>
<td>21150</td>
<td>Reconstruction midface, LeFort II; anterior intrusion (eg, Treacher-Collins Syndrome)</td>
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<td>Reconstruction midface, LeFort II; any direction, requiring bone grafts (includes obtaining autografts)</td>
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<td>21154</td>
<td>Reconstruction midface, LeFort III (extracranial), any type, requiring bone grafts (includes obtaining autografts); without LeFort I</td>
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<td>Reconstruction midface, LeFort III (extracranial), any type, requiring bone grafts (includes obtaining autografts); with LeFort I</td>
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<td>21188</td>
<td>Reconstruction midface, osteotomies (other than LeFort type) and bone grafts (includes obtaining autografts)</td>
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<td>21193</td>
<td>Reconstruction of mandibular rami, horizontal, vertical, C, or L osteotomy; without bone graft</td>
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<td>21194</td>
<td>Reconstruction of mandibular rami, horizontal, vertical, C, or L osteotomy; with bone graft (includes obtaining graft)</td>
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<td>21195</td>
<td>Reconstruction of mandibular rami and/or body, sagittal split; without internal rigid fixation</td>
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<td>21196</td>
<td>Reconstruction of mandibular rami and/or body, sagittal split; with internal rigid fixation</td>
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<td>21198</td>
<td>Osteotomy, mandible, segmental;</td>
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<td>21199</td>
<td>Osteotomy, mandible, segmental; with genioglossus advancement</td>
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<td>Osteotomy, maxilla, segmental (eg, Wassmund or Schuchard)</td>
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<td>Osteoplasty, facial bones; augmentation (autograft, allograft, or prosthetic implant)</td>
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<td>21209</td>
<td>Osteoplasty, facial bones; reduction</td>
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<td>Graft, bone; nasal, maxillary or malar areas (includes obtaining graft)</td>
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<td>21215</td>
<td>Graft, bone; mandible (includes obtaining graft)</td>
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<td>21230</td>
<td>Graft; rib cartilage, autogenous, to face, chin, nose or ear (includes obtaining graft)</td>
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<td>21244</td>
<td>Reconstruction of mandible, extraoral, with transosteal bone plate (eg, mandibular staple bone plate)</td>
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<td>21245</td>
<td>Reconstruction of mandible or maxilla, subperiosteal implant; partial</td>
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<td>21246</td>
<td>Reconstruction of mandible or maxilla, subperiosteal implant; complete</td>
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<td>21247</td>
<td>Reconstruction of mandibular condyle with bone and cartilage autografts (includes obtaining grafts) (eg, for hemifacial microsomia)</td>
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<td>21248</td>
<td>Reconstruction of mandible or maxilla, endosteal implant (eg, blade, cylinder); partial</td>
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<td>21255</td>
<td>Reconstruction of zygomatic arch and glenoid fossa with bone and cartilage (includes obtaining autografts)</td>
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<td>Malar augmentation, prosthetic material</td>
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<td>Secondary revision of orbitocraniofacial reconstruction</td>
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<td>21296</td>
<td>Reduction of masseter muscle and bone (eg, for treatment of benign massteric hypertrophy); intraoral approach</td>
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<td>42226</td>
<td>Lengthening of palate, and pharyngeal flap</td>
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<td>Code</td>
<td>Procedure</td>
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<td>42227</td>
<td>Lengthening of palate, with island flap</td>
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<td>42235</td>
<td>Repair of anterior palate, including vomer flap</td>
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<td>42280</td>
<td>Maxillary impression for palatal prosthesis</td>
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<tr>
<td>42281</td>
<td>Insertion of pin-retained palatal prosthesis</td>
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### Applicable ICD-10 Diagnosis Codes

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<th>Code</th>
<th>Diagnosis</th>
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<tr>
<td>M26.00</td>
<td>Unspecified anomaly of jaw size</td>
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<td>Maxillary hyperplasia</td>
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<td>M26.02</td>
<td>Maxillary hypoplasia</td>
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<td>M26.03</td>
<td>Mandibular hyperplasia</td>
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<td>Mandibular hypoplasia</td>
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<td>Macrogenia</td>
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<td>Microgenia</td>
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<td>Excessive tuberosity of jaw</td>
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<td>M26.09</td>
<td>Other specified anomalies of jaw size</td>
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<td>M26.10</td>
<td>Unspecified anomaly of jaw-cranial base relation</td>
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<td>M26.11</td>
<td>Maxillary asymmetry</td>
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<td>M26.12</td>
<td>Other jaw asymmetry</td>
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<td>M26.19</td>
<td>Other specified anomalies of jaw-cranial base relationship</td>
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<td>Unspecified anomaly of dental arch relationship</td>
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<td>M26.211</td>
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<td>M26.212</td>
<td>Malocclusion, Angle's class II</td>
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<td>Malocclusion, Angle's class III</td>
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<td>Open posterior occlusal relationship</td>
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<td>Excessive horizontal overlap</td>
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<td>Reverse articulation</td>
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<td>Anomalies of interarch distance</td>
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<td>Other anomalies of dental arch relationship</td>
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<td>Crowding of fully erupted teeth</td>
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<td>Excessive spacing of fully erupted teeth</td>
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<td>Horizontal displacement of fully erupted tooth or teeth</td>
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<td>Vertical displacement of fully erupted tooth or teeth</td>
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<td>M26.35</td>
<td>Rotation of fully erupted tooth or teeth</td>
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<td>M26.36</td>
<td>Insufficient interocclusal distance of fully erupted teeth (ridge)</td>
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<td>M26.4</td>
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<td>Dentofacial functional abnormalities, unspecified</td>
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<td>M26.51</td>
<td>Abnormal jaw closure</td>
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<td>Limited mandibular range of motion</td>
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<tr>
<td>M26.53</td>
<td>Deviation in opening and closing of the mandible</td>
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</table>
M26.54 Insufficient anterior guidance
M26.55 Centric occlusion maximum intercuspation discrepancy
M26.56 Non-working side interference
M26.57 Lack of posterior occlusal support
M26.59 Other dentofacial functional abnormalities
M26.70 Unspecified alveolar anomaly
M26.71 Alveolar maxillary hyperplasia
M26.72 Alveolar mandibular hyperplasia
M26.73 Alveolar maxillary hypoplasia
M26.74 Alveolar mandibular hypoplasia
M26.79 Other specified alveolar anomalies
M26.81 Anterior soft tissue impingement
M26.82 Posterior soft tissue impingement
M26.89 Other dentofacial anomalies
M26.9 Dentofacial anomaly, unspecified
Q35.1 Cleft hard palate
Q35.3 Cleft soft palate
Q35.5 Cleft hard palate with cleft soft palate
Q35.7 Cleft uvula
Q35.9 Cleft palate, unspecified
Q36.0 Cleft lip, bilateral
Q36.1 Cleft lip, median
Q36.9 Cleft lip, unilateral
Q37.0 Cleft hard palate with bilateral cleft lip
Q37.1 Cleft hard palate with unilateral cleft lip
Q37.2 Cleft soft palate with bilateral cleft lip
Q37.3 Cleft soft palate with unilateral cleft lip
Q37.4 Cleft hard and soft palate with bilateral cleft lip
Q37.5 Cleft hard and soft palate with unilateral cleft lip
Q37.8 Unspecified cleft palate with bilateral cleft lip
Q37.9 Unspecified cleft palate with unilateral cleft lip

References


Specialty matched clinical peer review.


