Orthognathic Surgery

<table>
<thead>
<tr>
<th>Type:</th>
<th>Policy Specific Section:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Necessity</td>
<td>Surgery</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Original Policy Date:</th>
<th>Effective Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 3, 2009</td>
<td>September 29, 2010</td>
</tr>
</tbody>
</table>

Definitions of Decision Determinations

**Medically Necessary:** A treatment, procedure or drug is medically necessary only when it has been established as safe and effective for the particular symptoms or diagnosis, is not investigational or experimental, is not being provided primarily for the convenience of the patient or the provider, and is provided at the most appropriate level to treat the condition.

**Investigational/Experimental:** A treatment, procedure or drug is investigational when it has not been recognized as safe and effective for use in treating the particular condition in accordance with generally accepted professional medical standards. This includes services where approval by the federal or state governmental is required prior to use, but has not yet been granted.

**Split Evaluation:** Blue Shield policy review can result in a Split Evaluation, where a treatment, procedure or drug will be considered to be investigational for certain indications or conditions, but will be deemed safe and effective for other indications or conditions, and therefore potentially medically necessary in those instances.

Description

The word orthognathic originated from the Greek words for “straight” and “jaw.” Orthognathic surgery is the surgical correction of abnormalities of the mandible (lower jaw), maxilla (upper jaw), or both, to achieve facial and occlusal balance when the severity of orofacial deformities is such that they cannot be treated through orthodontic treatment alone. While orthodontics can correct many bite problems when only the teeth are involved; orthognathic surgery may be
indicated if the jaw needs repositioning. One or more segments of the jaw(s) can be simultaneously repositioned to treat various types of malocclusions and jaw deformities. The overall goal of treatment is to improve function through correction of the underlying skeletal abnormality.

Note: This policy does not address the treatment of temporomandibular joint (TMJ) disorders or obstructive sleep apnea (OSA). Orthodontic therapy is not covered under the medical benefit as it is a dental benefit.

Refer to the following related Medical Policies or the Subscriber's benefit plan for additional information:

- Arthroscopy and Arthroscopic Surgery of the Temporomandibular Joint (TMJ)
- Diagnosis and Treatment Services for Obstructive Sleep Apnea (OSA) and Upper Airway Resistance Syndrome (UARS)
- Reconstructive Services

Policy

Coverage for orthognathic surgery is dependent on benefit plan language, and may be subject to the provisions of a cosmetic and/or reconstructive surgery benefit and the reconstructive Surgery Act (AB 1621). Please refer to the applicable benefit plan language to determine the terms, conditions and limitations of coverage.

Orthognathic surgery is considered reconstructive when there is documentation of either of the following:

- An abnormal structure of the maxilla and mandible caused by any of the following:
  - Accidental injury
  - Congenital defect
  - Developmental abnormality
  - Disease
  - Infection
  - Trauma
- Abnormal function of the maxilla and mandible exclusive of functional abnormalities of the teeth and occlusion.

See the related Blue Shield of California (BSC) Medical Policy “Reconstructive Services” for additional information.

Orthognathic surgery is considered medically necessary for correction of facial skeletal deformities when there is documentation of both of the following criteria:

- Facial skeletal deformities are not correctable with non-surgical modalities
- Documentation of two (2) out of the three (3) following discrepancies based on cephalometric radiograph measurements: (i.e., an anteroposterior discrepancy and a transverse discrepancy)
1. Anteroposterior discrepancies
   - Maxillary and/or mandibular cephalometric measurements that are two or more standard deviations below or above published norms for accepted skeletal landmarks. This includes, but is not limited to any of the following:
     - Anterior-posterior relation of the maxilla and mandible
     - Relative position of mandible to the cranial base
     - Relative position of maxilla to the cranial base

2. Vertical discrepancies
   - Presence of a vertical facial skeletal deformity on cephalometric measurements that are two or more standard deviations below or above published norms for accepted skeletal landmarks (e.g., overbite). This includes, but is not limited to either of the following:
     - The inclination of the mandibular plane in relation to the anterior base of the cranium
     - The proportion/ratio of posterior face height (PFH) to the total anterior face height (AFH)

3. Transverse discrepancies
   - Presence of a transverse skeletal discrepancy (e.g., crossbite) documented on quality medical photographs

Note: Published norms are based on standard values of specific populations

Orthognathic surgery is considered not medically necessary and/or not a covered benefit, including but not limited to, the following:

- Surgery intended to alter or reshape normal structures of the body in order to improve physical appearance when there is normal human anatomic variation; this is considered cosmetic in nature and is not a covered benefit
- Surgery intended to correct articulation disorders and other impairments in the production of speech, or for distortions in speech quality (e.g., hypernasal or hyponasal speech)

Note: Orthodontia treatment provided as an adjunct to orthognathic surgery (pre- and post-surgical) is not covered under the medical benefit because it is considered dental in nature. Refer to the subscribers dental or orthodontia benefit for further reference. (For dental/orthodontia procedures related to cleft palate repair see Blue Shield of California Medical Policy: Cleft Palate - Dental Related Services for further information)

Policy Guideline

Cephalometric Radiographic Landmarks

Anterior-posterior discrepancies
• Anteriorposterior relation of the maxilla and mandible or (ANB) is measured by the angle formed by the intersection of lines NA (nasion to the A point) and NB (nasion to the B point).

• Relative position of the mandible to the cranial base or (SNB) is measured by the angle formed by the intersection of the lines NS (nasion to sella) and NB (nasion to the B point).

• Relative position of the maxilla to the cranial base or (SNA) is measured by the angle formed by the intersection of the lines NS (nasion to sella) and NA (nasion to the A point).

The angles SNA; SNB; ANB indicates relative position of maxilla/mandible to each other and to the cranial base; if the SNA or SNB is greater or less than normal it indicates that the mandible or maxilla is either positioned anterior or posterior. This may be due to a difference in jaw growth or size. ANB indicates the relative position of maxilla to mandible, and allows the measurement of the extent of the jaw size/position discrepancy.

**Vertical discrepancies**

• The inclination of the mandibular plane in relation to the anterior base of the cranium is measured by the angle formed by the line formed by the sella to nasion and the line formed by the gonion to gnathion: - GoGn

• The proportion/ratio of posterior face height (PFH) to the total anterior face height (AFH): PFH/AFH
  o PFH = line formed from the sella to the gonion (S-Go)
  o AFH = line formed by the nasion to the menton (N-Me)

**Definitions of Cephalometric measurements:**

SNA - Indicates the anteroposterior position of maxillary apical base in relation to cranial base.

SNB - Indicates the anteroposterior position of the mandible apical base in relation to the cranial base.

ANB - Indicates the anteroposterior apical base relation of mandible to maxilla.

SN-GoGn - angle measuring the inclination of the mandibular plane in relation to the anterior base of the cranium

PFH - posterior face height

AFH - anterior face height

S-Go - linear measure which represents the posterior face height (PFH)

N-Me - linear measure corresponding to the total anterior face height (AFH)

S - Sella: mid point of the sella turcica

N - Nasion: most anterior point on fronto-nasal suture

Or - Orbitale: most inferior anterior point on margin of orbit
Po - Porion: upper most point on bony external auditory meatus
ANS - Anterior Nasal Spine
PNS - Posterior Nasal Spine
Go - Gonion: Most posterior inferior point on angle of mandible
Gn - Gnathion: The lowest point in the lower border of the mandible at the median plane
Me - Menton: Lower most point on the mandibular symphysis
A - point: Position of deepest concavity on anterior profile of maxilla
B - point: Position of deepest concavity on anterior profile of mandibular symphysis

Cephalometric Radiographic Landmark Tracing:

<table>
<thead>
<tr>
<th>Documentation Required for Clinical Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>• History and physical or consultation notes including:</td>
</tr>
<tr>
<td>o description of the specific anatomic deformity present</td>
</tr>
<tr>
<td>o diagnosis and evaluation</td>
</tr>
<tr>
<td>o previous management of the functional medical impairment (if applicable)</td>
</tr>
<tr>
<td>o symptoms related to the orthognathic deformity (if applicable)</td>
</tr>
<tr>
<td>• Medical diagnostic quality (clear) intra-oral and extra-oral photographs, two-view head photograph (front and side view)</td>
</tr>
<tr>
<td>• Bilateral cephalometric radiographs with measurements</td>
</tr>
<tr>
<td>• Cephalometric tracings and/or analysis</td>
</tr>
</tbody>
</table>
• Additional reports:
  o Current study models with the appropriate bite registration or representation of patients pre-surgical centric occlusion and/or centric relation bite
  o Panorex x-ray or tomograms
• Documentation demonstrating completion of skeletal growth for cases under the age of 18 (except for Class II malocclusion-mandibular retrognathic)

The materials provided to you are guidelines used by this plan to authorize, modify, or deny care for persons with similar illness or conditions. Specific care and treatment may vary depending on individual need and the benefits covered under your contract. These Policies are subject to change as new information becomes available.