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Medical policies in conjunction with other nationally recognized standards of care are used to make medical coverage decisions.

## **Orthognathic Surgery Policy**

**Indication/Usage:** Common indications for this surgery includes maxillary/mandibular discrepancies (vertical, anteroposterior or transverse), facial skeletal discrepancies associated with documented sleep apnea, airway defects ad soft tissue discrepancies, temporomandibular joint pathologies, congenital abnormalities, trauma, infection, cosmetic etc.

#### **Medical Indications for Authorization**

## **Commercial and Medicare Members**

Coverage of Orthognathic surgery and related services, is subject to the terms, conditions and limitations of the applicable benefit plan to determine benefit availability and the terms, limitations and conditions of coverage SummaCare considers Orthognathic surgery medically necessary for correction of skeletal deformities of the maxilla or mandible when it is documented that these

skeletal deformities are contributing to significant masticatory dysfunction, and where the severity of the deformities precludes adequate treatment through dental therapeutics and orthodontics:

# **Medically Necessary Conditions**

- I. Maxillary and/or mandibular facial skeletal deformities associated with masticatory malocclusion for following indications with proof of documentation.
  - a. Anteroposterior discrepancies
    - 1. Maxillary/Mandibular incisor relationship: overjet of 5mm or more, or a 0 to a negative value (norm 2mm).
    - 2. Maxillary/Mandibular anteroposterior molar relationship discrepancy of 4mm or more (norm 0 to 1mm).
    - 3. These values represent two or more standard deviation from published norms.

#### b. Vertical discrepancies

- 1. Presence of a vertical facial skeletal deformity which is two or more standard deviations from published norms for accepted skeletal landmarks.
- 2. Open Bite
  - a. No vertical overlap of anterior teeth over 2 mm
  - b. Unilateral or bilateral posterior open bite greater than 2 mm
- 3. Deep overbite of at least 7 mm with impingement or irritation of buccal or lingual soft tissues of the opposing arch.
- 4. Supraeruption of a dentoalveolar segment due to lack of occlusion creating dysfunction not amenable to conventional prosthetics.

## c. Transverse discrepancies

- 1. Presence of a transverse skeletal discrepancy which is two or more standard deviations from published norms.
- 2. Total bilateral maxillary palatal cusp to mandibular fossa discrepancy of 4mm or greater, or a unilateral discrepancy of 3mm or greater, given normal axial inclination of the posterior teeth.

# d. Asymmetries

- 1. Anteroposterior, transverse or lateral asymmetries greater than 3mm with concomitant occlusal asymmetry.
- II. Maxillary and/or mandibular facial skeletal abnormalities due to trauma or illness.
- III. Congenital anomalies: Orthognathic surgery for correction of the following congenital (apparent at birth) deformities may be considered medically necessary (list may not be all inclusive):

- Apert syndrome, Cleft deformity, Crouzon syndrome, Pfeiffer syndrome, Pierre Robin Syndrome
- Abnormal growth of the jaws (resulting in maxillary and or mandibular hypo or hyperplasia) is **NOT** considered a congenital anomaly
- IV. Mandibular and maxillary deformities contributing to airway dysfunction and associated sleep apnea when meets the following criteria:
  - Obstructive sleep apnea documented as severe (confirmed by a sleep study result of AHI >30)
  - Individual failed conservative treatment with PAP a minimum of 90 days or has craniofacial abnormalities which prevent the individual to have PAP treatment.
- V. Speech impairments due to severe cleft lip and palate deformities which were not resolved by speech therapy or orthodontic procedures (use of braces or appliances).
- VI. Maxillary and/or mandibular facial skeletal abnormalities causing functional impairments like malnutrition, inadequate nutrition after ruling out other causes which might be causing these conditions.

#### Limitations

Orthodontic treatment prior and post orthognathic surgery are considered dental in nature and excluded from coverage under the medical benefit, including but not limited to: I. Presurgical orthodontic treatment:

- Dental Extractions
- Align the dentition within the dental arch, level the curve of Spee, and decompensate the anterior dentition.
- Segmental Osteotomies
- II. Post-Surgical Orthodontic treatment:
  - Dental alignment with the relative position of the skeletal bases in their final position
  - Close any remaining interdental spaces and bring the dentition into maximum intercuspal relationship
  - Use of dental retainers

## **Experimental and Investigational Indications:**

- I. Orthognathic surgery for unaesthetic facial features cosmetic regardless of whether these are associated with psychological disorders
- II. Orthognathic surgery for speech impairments or articulation disorders in non-Cleft lip or palate conditions
  - □ Orthognathic surgery for temporomandibular disease or pathology (Orthognathic surgery for Myofascial Pain Dysfunction (MPD) and/or Temporomandibular Joint Syndrome (TMJ). Evidence in peer-reviewed literature does not support the use of orthognathic surgery alone as a primary treatment of TMJ and there is no literature to support a causeand-effect relationship between malocclusion and TMJ. Orthognathic surgery does not remove or improve a medical functional impairment for the following symptoms / conditions and are not covered:
    - Myofascial, neck, head, and shoulder pain
    - Popping / clicking of temporomandibular joint(s)
    - Potential for development or exacerbation of temporomandibular joint dysfunction
      - Teeth grinding
- III. Use of condylar positioning devices in Orthognathic surgery
- IV. Three-dimensional virtual treatment planning of orthognathic surgery is experimental and investigational
- V. Low-level laser therapy for the management of neurosensory disorders and post op pain/paresthesia following orthognathic surgery is experimental and investigational VI. Any other indications not mentioned in coverage criteri

#### **Cosmetic Indications:**

- Mentoplasty or genial osteotomies/ostectomies (chin surgeries) are considered cosmetic when performed as an isolated procedure to address genial hypoplasia, hypertrophy, or asymmetry, and may be considered cosmetic when performed with other surgical procedures.
- Surgical adjustment of facial balance or facial proportion in the absence of skeletal functional impairment is considered cosmetic.

#### **Documentation Needed:**

Documentation requirements for skeletal deformities related to masticatory dysfunction:

- a. X-rays to confirm diagnosis / discrepancy
- b. BMI (body mass index)
- c. Medical evidence of malnutrition

#### d. Models and/or photos

Documentation requirements for skeletal deformities related to airway dysfunction contribution to the skeletal deformity:

- a. X-rays to confirm diagnosis / deformity
- b. Obstructive sleep apnea indicated by apnea-hypopnea index (AHI) greater than 30 on sleep study
- c. Failed three (3) month trial of C-PAP where clinically appropriate

Documentation requirements for orthodontic treatment prior to request for orthognathic surgery: Orthodontic treatment may be needed prior to orthognathic surgery to position the teeth in a manner that will provide for an adequate occlusion following surgical repositioning of the jaws. The interim occlusion that is achieved by orthodontic treatment may be dysfunctional prior to the completion of the orthognathic surgical phase of the treatment plan.

- a. A written explanation of the member's clinical course, including dates and nature of any previous treatment
- b. Physical evidence of a skeletal, facial, or craniofacial deformity defined by study models and pre-orthodontic imaging
- c. To correct jaw and craniofacial deformities related to severe malnutrition secondary or handicapping malocclusion.
  - 1. Severe malnutrition secondary or handicapping malocclusion is defined as a deformity where the patient has difficulty in swallowing or in the ability to chew only soft food or intake liquids. For these patients, there should be evidence of significant and persistent symptoms and other causes of swallowing and oral problems should have been evaluated. The Health Plan will require clinical evidence, such as weight loss or malnutrition.

There is no current CMS NCD or LCD available

# Terms Associated with Orthognathic Surgery:

Alveolar or Alveolus	That portion of the upper and lower jaws that contain the teeth and form the dental arches.
Apertgnathia	A type of malocclusion characterized by the premature occlusion of posterior teeth and the absence of anterior occlusion; sometimes referred to as open bite.

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.
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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 of an excess of the upper jaw. May be referred to as a deep bite deformity.
Genial	Pertaining to the chin.
Hyperplasia	An abnormal increase in cells in an organ or a tissue with consequent enlargement
Myofascial pain	Pain involving the muscles of the head, neck, and upper back.
Mandible	Lower jaw.

Maxilla	Upper jaw.
Mentoplasty	Surgical alteration of the chin. Also called Genioplasty.
Masticatory	Refers to masticatory muscles or chewing.
Maxillary hyperplasia	Overgrowth of the maxilla, or upper jaw, often presenting as excess vertical height of the maxilla.
Maxillary hypoplasia	An abnormally small or posteriorly positioned maxilla, or upper jaw, often accompanying cleft palate or other craniofacial syndromes.
Micrognathia	An abnormally small mandible or lower jaw.

Occlusion	The way the teeth bite or come together. Occlusions may be normal or abnormal (malocclusion) and are classified as Class I, Class II, or Class III.
Malocclusion	Any deviation from a physiologically acceptable relationship of the upper and lower teeth with each other's.
Orthodontic	The dental specialty and practice of preventing and correcting irregularities of the teeth, as by the use of braces.
Osteotomy	The incision, sectioning, or cutting of a bone, without removing any of its parts, for the purpose of repositioning it into a structurally correct location with itself and adjacent

	structures (bone cut).  Linear osteotomy-relating to a line, or straight Sagittal osteotomy-relating to the median plane of the body or any plane parallel to it
Ostectomy	The excision, sectioning, or cutting of a bone for the purpose of removing a portion of the bone and repositioning it into a more structurally balanced relationship with itself and adjacent structures (bone removal).
Osteoplasty	A surgical procedure that is designed to change or modify the shape or configuration of a bone (bone graft).

Orthognathic surgery	Is the surgical correction of skeletal anomalies or malformations involving the mandible or maxilla? The word Orthognathics means "straight jaws". The procedures are intended to achieve facial balance between the middle and lower thirds of the face in vertical, transverse, and horizontal dimensions.
	<ul> <li>Surgical procedure includes osteotomy, ostectomy, or osteoplasty</li> <li>Surgical procedure includes the provision of material to hold bones together such as plates, screws, wires</li> <li>These malformations may be developmental or they may be due to traumatic injuries to the facial bones.</li> <li>Condition cannot be improved with routine orthodontic therapy AND the functional impairment(s) are directly caused by the malocclusionmalformation</li> <li>Usually preceded by orthodontic therapy to attempt to correct malocclusion by conservative therapy or in preparation for surgery •         <ul> <li>Usually orthodontic consultation may be needed to confirm that orthognathic surgery would be needed or that the functional impairment would be improved with orthodontic therapy alone.</li> </ul> </li> </ul>

Prognathia	An abnormally large mandible, or lower jaw.
Retrognathia	A posteriorly positioned mandible, or lower jaw.  Most common problem for which orthognathic surgery is performed (sometimes referred to as over bite).
Skeletal/facial anomalies	Are referenced as spatial (refers to space) planes: horizontal, vertical, transverse, or a combination.

# **Coverage Decisions**

Coverage decisions made per CMS, Hayes, and industry standard research.

# **Plans Covered By This Policy**

Commercial and Medicare

Self-funded Commercial groups refer to plan document for coverage

#### **Sources Reviewed**

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