

MEDICAL POLICY

POLICY TITLE	ORTHOGNATHIC SURGERY
POLICY NUMBER	MP 1.101
CLINICAL BENEFIT	☐ MINIMIZE SAFETY RISK OR CONCERN. ☐ MINIMIZE HARMFUL OR INEFFECTIVE INTERVENTIONS. ☐ ASSURE APPROPRIATE LEVEL OF CARE. ☐ ASSURE APPROPRIATE DURATION OF SERVICE FOR INTERVENTIONS. ☒ ASSURE THAT RECOMMENDED MEDICAL PREREQUISITES HAVE BEEN MET. ☐ ASSURE APPROPRIATE SITE OF TREATMENT OR SERVICE.
Effective Date:	RETIRED 9/1/2026

POLICY

Documentation should include a medical history and physical examination, description of specific anatomic deformities, previous management of functional medical impairments, and details of any failed non-surgical/conservative therapies. Dental molds, photographs, and x-rays (Ortho-Panores, cephalometric), which includes the measurements and angles, are requirements for determining the medical necessity of the service.

Orthognathic Surgery is frequently preceded by orthodontics to attempt to correct malocclusion by conservative means or in preparation for surgery. For surgery to be considered under this policy, any preparatory orthodontic therapy must be completed and condition for which surgery is a consideration must still be present, and shown with adequate documentation, after the orthodontic therapy (i.e., the original problem must survive the orthodontics).

Orthognathic surgery may be considered **medically necessary** in the following circumstances:

- Correction of significant congenital (present at birth) deformity. This includes the Lefort III procedure for diagnoses such as Crouzon Syndrome, Pfeiffer Syndrome, cleft lip and palate, Treacher Collins or Apert Syndrome as well as mandibular surgery, including intraoral vertical ramus osteotomy or bilateral split sagittal ramus osteotomy for congenital micrognathia resulting in respiratory obstruction, Pierre Robin Syndrome or maxillary deformity from a cleft; **OR**
- Restoration following trauma, tumor, degenerative disease, or infection (other than mild gingivitis); **OR**
- Treatment of malocclusion that contributes to one or more significant functional impairments as defined below:
 - Mastication dysfunction where there is persistent difficulty swallowing, choking or adequately chewing food; **OR**
 - Speech abnormality that includes all of the following:
 - Speech deficit is noticeable to a layperson or primary care physician and significantly impairs the individual's ability to communicate; **AND**
 - Professional speech evaluation indicates speech deficit is the direct result of anatomical jaw abnormality and is not amenable to speech therapy; **AND**

MEDICAL POLICY

POLICY TITLE	ORTHOGNATHIC SURGERY
POLICY NUMBER	MP 1.101

- Professional speech evaluation has determined that improvement in speech can be expected after orthognathic surgery

In addition to meeting the above requirement for functional impairment due to malocclusion, the individual must also meet criteria from **any one** of the following anatomic requirements:

- Anteroposterior discrepancies defined as either:
 - Maxillary/Mandibular incisor relationship (established normal is 2 mm)
 - Horizontal overjet of +5 mm or more; OR
 - Horizontal overjet of zero to a negative value
 - Mandibular/Maxillary anteroposterior molar relationship discrepancy of 4mm or more (established normal is zero to 1 mm).
- Vertical Discrepancies defined as any of the following:
 - Presence of a vertical facial skeletal deformity, which is two or more standard deviations from published norms are accepted skeletal landmarks;
 - Open Bite
 - No vertical overlap of anterior teeth; OR
 - Unilateral or bilateral posterior open bite greater than 2 mm
 - Deep overbite with impingement or irritation of buccal or lingual soft tissues of the opposing arch
 - Supraeruption of a dentoalveolar segment due to lack of occlusion.
- Transverse Discrepancies defined as either of the following:
 - Presence of a transverse skeletal discrepancy, which is two or more standard deviations from published norms
 - 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
- Asymmetries defined as the following:
 - Lateral, anteroposterior, or transverse asymmetries greater than 3 mm with an occlusal asymmetry; **OR**
- Significant dental trauma (i.e., sheering of teeth, fractured teeth) related to malocclusion. Information should be supplied which indicates the severity and duration of the trauma; **OR**
- Persistent pain attributed primarily to qualifying facial skeletal discrepancies and refractory to at least 3 months of conservative therapy (e.g., medication, physical therapy); **OR**

MEDICAL POLICY

POLICY TITLE	ORTHOGNATHIC SURGERY
POLICY NUMBER	MP 1.101

- Airway obstruction (such as obstructive sleep apnea) that is:
 - Confirmed by appropriate sleep study; **AND**
 - Persisting despite failed attempts at conservative treatment (e.g., CPAP, oral appliance) and/or less invasive surgical procedures

Orthognathic surgery performed for any of the reasons listed below is considered **investigational** as there is insufficient evidence to support a general conclusion concerning the health outcomes or benefits associated with this procedure for following indications:

- Orthognathic surgery performed primarily for psychological, cosmetic or orthodontic purposes;
- Surgery designed to eliminate potential future problems, where functional impairment is not yet established according to the above criteria;
- Surgery where significant risk of recurrence of symptoms or structural abnormalities exist.

Cross-References:

MP 1.004 Cosmetic and Reconstructive Surgery

MP 1.092 Dental and Oral Surgery Procedures Performed in a Facility

MP 1.128 Surgical Treatment of Snoring and Obstructive Sleep Apnea

MP 2.062 Temporomandibular Disorder

PRODUCT VARIATIONS

This policy is only applicable to certain programs and products administered by Capital Blue Cross please see additional information below, and subject to benefit.

FEP PPO - Refer to FEP Medical Policy Manual. The FEP Medical Policy manual can be found at:

<https://www.fepblue.org/benefit-plans/medical-policies-and-utilization-management-guidelines/medical-policies>

DESCRIPTION/BACKGROUND

Orthognathic surgery is the surgical correction of elements of the facial skeleton to restore the proper anatomic and functional relationship in patients with acquired or congenital malformations involving the upper or lower jaw. These malformations may be present at birth, may become evident as the individual grows, or result from trauma, tumors, or infections. Surgery is often done in conjunction with orthodontics, which may be required before and/or after surgery in order to align the teeth.

Malformations of the jaw can cause abnormal speech, chewing and eating difficulties, loss of teeth, respiratory problems, and dysfunction of the temporomandibular joint. Malocclusion

MEDICAL POLICY

POLICY TITLE	ORTHOGNATHIC SURGERY
POLICY NUMBER	MP 1.101

(abnormal jaw relation) may be caused by an excess or lack of bony tissue in one or both jaws, or by trauma to the facial bones.

Breathing patterns, craniofacial growth and skeletal alteration are known to be closely related. Intervention with orthopedic and/or surgical means on selected patients has been shown to decrease airway resistance and improve breathing. For example, studies demonstrate that patients with vertical hyperplasia of the maxilla have an associated increase in nasal resistance, as do patients with maxillary hypoplasia with or without clefts. Following orthognathic surgery, such patients routinely demonstrate decreases in nasal airway resistance and improved respiration.

Obstructive sleep apnea (OSA) is a specific type of respiratory dysfunction. A significant number of patients with OSA have underlying facial skeletal deformities and benefit from orthognathic surgery.

Reconstruction of the mandibular ramus, mandibular or maxilla osteotomy, and reconstruction of the mandible or maxilla are considered orthognathic surgical procedures. The primary goal of treatment is to improve form and function through correction of underlying skeletal deformity.

Surgical Procedures

In orthognathic surgery, an osteotomy is made in the affected jaw (i.e., bone is cut), and the maxilla, mandible and/or chin are repositioned in a more normal alignment. The bones are held in position with plates, screws, and/or wires. Simultaneous osteotomies may be performed when deformities must be corrected in both jaws. Most maxillofacial deformities can be managed with three basic osteotomies: 1) the midface with the Le Fort I type osteotomy, 2) the lower face with the sagittal split ramal osteotomy of the mandible, and 3) the horizontal osteotomy of the symphysis of the chin. Various osteotomies are used to correct midfacial deformities, and the choice of procedure depends on the specific deformity. For most midfacial maxillofacial deformities, the Le Fort I osteotomy and its variations are adequate. The Le Fort I osteotomy involves separating the maxilla and the palate from the skull above the roots of the upper teeth through an incision inside the upper lip. The maxilla is fixed in its new position with titanium screws and plates.

For the lower face, various osteotomies are used to correct mandibular deformities, and the choice depends on the particular deformity. Currently, the sagittal split ramal osteotomy is the primary choice for correcting most cases of mandibular retrognathism (lack of growth of the mandible) and prognathism (protrusion of the mandible).

Deformities of the chin can exist independently of mandibular deformities, and the chin can be abnormally proportioned without occlusal involvement. While alloplastic chin implants are used most commonly for correction of minimal sagittal chin deficiencies, the horizontal osteotomy of the symphysis (osseous genioplasty) is a more versatile procedure. The chin can be repositioned in multiple planes, allowing for correction of significant sagittal and vertical deformities of deficiency (microgenia) or excess (macrogenia) and asymmetric conditions.

MEDICAL POLICY

POLICY TITLE	ORTHOGNATHIC SURGERY
POLICY NUMBER	MP 1.101

DEFINITIONS

N/A

DISCLAIMER

Capital Blue Cross' medical policies are used to determine coverage for specific medical technologies, procedures, equipment, and services. These medical policies do not constitute medical advice and are subject to change as required by law or applicable clinical evidence from independent treatment guidelines. Treating providers are solely responsible for medical advice and treatment of members. These policies are not a guarantee of coverage or payment. Payment of claims is subject to a determination regarding the member's benefit program and eligibility on the date of service, and a determination that the services are medically necessary and appropriate. Final processing of a claim is based upon the terms of contract that applies to the members' benefit program, including benefit limitations and exclusions. If a provider or a member has a question concerning this medical policy, please contact Capital Blue Cross' Provider Services or Member Services.

CODING INFORMATION

Note: This list of codes may not be all-inclusive, and codes are subject to change at any time. The identification of a code in this section does not denote coverage as coverage is determined by the terms of member benefit information. In addition, not all covered services are eligible for separate reimbursement.

Covered when medically necessary:

Procedure Codes								
D7946	D7947	D7948	D7949	D8091	D8671	21081	21085	21089
21100	21110	21125	21127	21141	21142	21143	21145	21146
21147	21150	21151	21154	21155	21159	21160	21188	21193
21194	21195	21196	21198	21199	21206	21208	21209	21210
21215	21244	21245	21246	21247	21248	21249	21299	21431
21432	21433	21435	21436	21490				

REFERENCES

1. American Association of Oral and Maxillofacial Surgeons (AAOMS). Indications for Orthognathic Surgery 2025
2. Bill J, Proff P, Bayerlein T, et al. Orthognathic surgery in cleft patients, Journal of Cranio-Maxillofacial Surgery, Volume 34, Supplement 2, September 2006, Pages 77-81
3. Joss, CU, Vassalli, IM. Stability after bilateral sagittal split osteotomy advancement surgery with rigid internal fixation: a systematic review. J Oral Maxillofac Surg. 2009; 67(2):301-313

MEDICAL POLICY

POLICY TITLE	ORTHOGNATHIC SURGERY
POLICY NUMBER	MP 1.101

4. Joss, CU, Vassalli, IM. Stability after bilateral sagittal split osteotomy setback surgery with rigid internal fixation: a systematic review. *J Oral Maxillofac Surg.* 2008; 66(8):1634-1643.
5. Kaipatur, NR, Flores-Mir, C. Accuracy of computer programs in predicting orthognathic surgery soft tissue response. *J Oral Maxillofac Surg.* 2009; 67(4):751-759
6. Mucedero, M, Coviello, A, Baccetti, T, Franchi, L, and Cozza, P. Stability factors after double-jaw surgery in Class III malocclusion. A systematic review. *Angle Orthod.* 2008; 78(6):1141-1152
7. Naran S, Steinbacher DM, Taylor JA. Current Concepts in Orthognathic Surgery. *Plast Reconstr Surg.* 2018;141(6):925e-936e. doi:10.1097/PRS.0000000000004438
8. Olate S, Sigua E, Asprino L, de Moraes M. Complications in Orthognathic Surgery. *J Craniofac Surg.* 2018;29(2):e158-e161. doi:10.1097/SCS.0000000000004238
9. Patel PK, Han H, Kang N, et al. Orthognathic Surgery. *Emedicine.* Updated December 27, 2018 Accessed July 12, 2022.
10. Faber, Jorge et al. "Obstructive sleep apnea in adults." *Dental press journal of orthodontics* vol. 24,3 99-109. 1 Aug. 2019, doi:10.1590/2177-6709.24.3.099-109.sar
11. Taber's Cyclopedic Medical Dictionary, 20th edition
12. Seo HJ, Choi YK. Current trends in orthognathic surgery. *Arch Craniofac Surg.* 2021;22(6):287-295. doi:10.7181/acfs.2021.00598
13. Cottrell DA, Farrell B, Ferrer-Nuin L, Ratner S. Surgical Correction of Maxillofacial Skeletal Deformities. *J Oral Maxillofac Surg.* 2017;75(8S):e94-e125. doi:10.1016/j.joms.2017.04.025
14. da Silva RM, Mathias FB, da Costa CT, da Costa VPP, Goettems ML. Association between malocclusion and the severity of dental trauma in primary teeth. *Dent Traumatol.* 2021;37(2):275-281. doi:10.1111/edt.12615
15. Ahmadvand A, Alavi S, Mehraban SH. An overview of surgery-first orthognathic approach: History, indications and limitations, protocols, and dentoskeletal stability. *Dent Res J (Isfahan).* 2021;18:47. Published 2021 Jun 22. PMID: 34429867
16. Amarista FJ, Perez DE. Concomitant Temporomandibular Joint Replacement and Orthognathic Surgery. *Diagnostics (Basel).* 2023;13(15):2486. Published 2023 Jul 26. doi:10.3390/diagnostics13152486. PMID: 37568850
17. Larsen, M.K. (2017). Indications for Orthognathic Surgery - A Review. *oral health and dental management*, 2017, 1-13.

POLICY HISTORY

MP 1.101	07/15/2020 Consensus Review. No change to policy statement. Background and Rationale reviewed. Added codes 21125 and 21127.
	01/15/2021 Administrative Update. Coding correction. Code 21248 was inadvertently removed; it has been re-added.
	08/31/2021 Consensus Review. No changes to policy statement. References updated.
	07/12/2022 Consensus Review. No changes to policy statement. Coding review,

MEDICAL POLICY

POLICY TITLE	ORTHOGNATHIC SURGERY
POLICY NUMBER	MP 1.101

	literature review, references updated.
	11/29/2022 Administrative Update. Added code D7509
	03/10/2023 Minor Review. Updated intro statement to include orthodontics. Updated malocclusion section to include mastication dysfunction and speech abnormality; only those impairments will also require the anatomic requirements. Malnutrition section removed as it relates to mastication dysfunction which is already addressed. Myofascial pain persisting for 6 months changed to persistent pain attributed primarily to qualifying facial skeletal discrepancies and refractory to at least 3 months of conservative therapy. Removed D7509 from policy. Updated cross references, background, and references.
	03/06/2024 Consensus Review. No change to policy statement. Updated references.
	12/11/2024 Administrative Update. Added D8091, D8671. Effective 01/01/2025.
	01/31/2025 Consensus Review. No change to policy statement.
	04/13/2026 Retirement Review.

Health care benefit programs issued or administered by Capital Blue Cross and/or its subsidiaries, Capital Advantage Insurance Company®, Capital Advantage Assurance Company® and Keystone Health Plan® Central. Independent licensees of the Blue Cross BlueShield Association. Communications issued by Capital Blue Cross in its capacity as administrator of programs and provider relations for all companies.