

Orthognathic (Jaw) Surgery (for Tennessee Only)

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[Instructions for Use](#)

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Related Policies
<ul style="list-style-type: none"> Obstructive and Central Sleep Apnea Treatment (for Tennessee Only) Treatment of Temporomandibular Joint Disorders (for Tennessee Only)

Application

This Medical Policy applies to Medicaid and CoverKids in the state of Tennessee.

Coverage Rationale

This policy does not address surgical treatment for obstructive sleep apnea or temporomandibular joint disorders; refer to the Medical Policy titled [Obstructive and Central Sleep Apnea Treatment \(for Tennessee Only\)](#) or [Treatment of Temporomandibular Joint Disorders \(for Tennessee Only\)](#).

Orthognathic (jaw) surgery may be considered **Reconstructive** and medically necessary when the following criteria are met:

- The presence of **one or more** of the following facial skeletal deformities associated with masticatory malocclusion:
 - Anteroposterior discrepancies (established norm = 2 mm), with **one** of the following:
 - Maxillary/mandibular incisor relationship: Horizontal overjet of 5 mm or more or a 0 to a negative value; or
 - Maxillary/mandibular anteroposterior molar relationship: Discrepancy of 4 mm or more (norm = 0 to 1 mm)

Note: These values represent 2 or more standard deviations from published norms.
 - or
 - Vertical discrepancies, with **one** of the following:
 - Presence of a vertical facial skeletal deformity, which is 2 or more standard deviations from published norms for accepted skeletal landmarks; or
 - Open bite with **one** of the following:
 - No vertical overlap of anterior teeth; or
 - Unilateral or bilateral posterior open bite greater than 2 mm
 - or
 - Deep overbite with impingement or irritation of buccal or lingual soft tissues of the opposing arch; or
 - Supraeruption of a dentoalveolar segment due to lack of occlusion
 - or
 - Transverse discrepancies, with **one** of the following:
 - Presence of a transverse skeletal discrepancy, which is 2 or more standard deviations from published norms; or
 - 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

- or
- Asymmetries: Anteroposterior, transverse, or lateral asymmetries greater than 3 mm with concomitant occlusal asymmetry
- and
- The individual must also have **one or more** of the following [Functional Impairments](#):
 - Masticatory and swallowing dysfunction due to skeletal malocclusion (e.g., inability to bite and/or chew solid foods, choking on incompletely masticated solid foods, damage to soft tissue during mastication, malnutrition); or
 - Documentation of speech impairment due to facial skeletal deformity

Orthognathic surgery is not considered [Reconstructive](#) and medically necessary for all other indications, including when performed for [Cosmetic](#) purposes only.

Medical Records Documentation Used for Reviews

Benefit coverage for health services is determined by the federal, state, or contractual requirements, and applicable laws that may require coverage for a specific service. Medical records documentation may be required to assess whether the member meets the clinical criteria for coverage but does not guarantee coverage of the services requested.

The patient's medical record must contain documentation that fully supports the medical necessity for the requested services. This documentation includes, but is not limited to, relevant medical history, physical examination, and results of pertinent diagnostic tests or procedures. Documentation supporting the medical necessity should be legible, maintained in the patient's medical record, and must be made available upon request.

Definitions

Refer to the federal, state, or contractual requirements that supersede the definitions below.

Cosmetic Procedures: Procedures or services that change or improve appearance without significantly improving physiological function.

Functional or Physical Impairment: Functional or Physical or physiological Impairment causes deviation from the normal function of a tissue or organ. This results in a significantly limited, impaired, or delayed capacity to move, coordinate actions, or perform physical activities and is exhibited by difficulties in one or more of the following areas: physical and motor tasks; independent movement; performing basic life functions.

Reconstructive Procedures: Reconstructive Procedures when the primary purpose of the procedure is either of the following:

- Treatment of a medical condition
- Improvement or restoration of physiologic function

Reconstructive Procedures include surgery or other procedures which are related to an injury, sickness, or congenital anomaly. The primary result of the procedure is not a changed or improved physical appearance.

Procedures that correct an anatomical congenital anomaly without improving or restoring physiologic function are considered Cosmetic Procedures. The fact that you may suffer psychological consequences or socially avoidant behavior as a result of an injury, sickness, or congenital anomaly does not classify surgery (or other procedures done to relieve such consequences or behavior) as a Reconstructive Procedure.

Applicable Codes

The following list(s) of procedure and/or diagnosis codes is provided for reference purposes only and may not be all inclusive. Listing of a code in this policy does not imply that the service described by the code is a covered or non-covered health service. Benefit coverage for health services is determined by federal, state, or contractual requirements and applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment. Other policies and guidelines may apply.

CPT Code	Description
21076	Impression and custom preparation; surgical obturator prosthesis

CPT Code	Description
21079	Impression and custom preparation; interim obturator prosthesis
21080	Impression and custom preparation; definitive obturator prosthesis
21081	Impression and custom preparation; mandibular resection prosthesis
21082	Impression and custom preparation; palatal augmentation prosthesis
21083	Impression and custom preparation; palatal lift prosthesis
21120	Genioplasty; augmentation (autograft, allograft, prosthetic material)
21121	Genioplasty; sliding osteotomy, single piece
21122	Genioplasty; sliding osteotomies, 2 or more osteotomies (e.g., wedge excision or bone wedge reversal for asymmetrical chin)
21123	Genioplasty; sliding, augmentation with interpositional bone grafts (includes obtaining autografts)
21125	Augmentation, mandibular body or angle; prosthetic material
21127	Augmentation, mandibular body or angle; with bone graft, onlay or interpositional (includes obtaining autograft)
21141	Reconstruction midface, LeFort I; single piece, segment movement in any direction, (e.g., for Long Face Syndrome), without bone graft
21142	Reconstruction midface, LeFort I; 2 pieces, segment movement in any direction, without bone graft
21143	Reconstruction midface, LeFort I; 3 or more pieces, segment movement in any direction, without bone graft
21145	Reconstruction midface, LeFort I; single piece, segment movement in any direction, requiring bone grafts (includes obtaining autografts)
21146	Reconstruction midface, LeFort I; 2 pieces, segment movement in any direction, requiring bone grafts (includes obtaining autografts) (e.g., ungrafted unilateral alveolar cleft)
21147	Reconstruction midface, LeFort I; 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	Reconstruction midface, LeFort II; 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	Reconstruction midface, LeFort III (extracranial), any type, requiring bone grafts (includes obtaining autografts); 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	Reconstruction midface, LeFort III (extra and intracranial) with forehead advancement (e.g., mono bloc), requiring bone grafts (includes obtaining autografts); with LeFort I
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	Reconstruction of mandibular rami, horizontal, vertical, C, or L osteotomy; with bone grafts (includes obtaining graft)
21195	Reconstruction of mandibular rami and/or body, sagittal split; without internal rigid fixation
21196	Reconstruction of mandibular rami and/or body, sagittal split; with internal rigid fixation
21198	Osteotomy, mandible, segmental
21199	Osteotomy, mandible, segmental; with genioglossus advancement
21206	Osteotomy, maxilla, segmental (e.g., Wassmund or Schuchard)
21210	Graft, bone; nasal, maxillary or malar areas (includes obtaining graft)
21215	Graft, bone; mandible (includes obtaining graft)

CPT Code	Description
21244	Reconstruction of mandible, extraoral, with transosteal bone plate (e.g., mandibular staple bone plate)
21245	Reconstruction of mandible or maxilla, subperiosteal implant; partial
21246	Reconstruction of mandible or maxilla, subperiosteal implant; complete
21247	Reconstruction of mandibular condyle with bone and cartilage autografts (includes obtaining grafts) (e.g., for hemifacial microsomia)

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CDT Code	Description
D5934	Mandibular guidance prosthesis with guide flange
D5935	Mandibular guidance prosthesis without guide flange
D5982	Surgical stent
D5988	Surgical splint
D7471	Removal of lateral exostosis (maxilla or mandible)
D7472	Removal of torus palatinus
D7473	Removal of torus mandibularis
D7490	Radical resection of maxilla or mandible
D7610	Maxilla – open reduction (teeth immobilized, if present)
D7630	Mandible – open reduction (teeth immobilized if present)
D7650	Malar and/or zygomatic arch – open reduction
D7671	Alveolus – open reduction, may include stabilization of teeth
D7680	Facial bones – complicated reduction with fixation and multiple surgical approaches
D7710	Maxilla – open reduction
D7730	Mandible – open reduction
D7750	Malar and/or zygomatic arch – open reduction; Incision required to reduce fracture
D7770	Alveolus – open reduction stabilization of teeth
D7780	Facial bones – complicated reduction with fixation and multiple approaches
D7940	Osteoplasty – for orthognathic deformities
D7941	Osteotomy – mandibular rami
D7943	Osteotomy – mandibular rami with bone graft; includes obtaining the graft
D7944	Osteotomy – segmented or subapical
D7945	Osteotomy – body of mandible
D7946	LeFort I (maxilla – total)
D7947	LeFort I (maxilla – segmented)
D7948	LeFort II or LeFort III (osteoplasty of facial bones for midface hypoplasia or retrusion) without bone graft
D7949	LeFort II or LeFort III – with bone graft
D7950	Osseous, osteoperiosteal or cartilage graft of the mandible or maxilla – autogenous or nonautogenous, by report
D7953	Bone replacement graft for ridge preservation – per site
D7955	Repair of maxillofacial soft and/or hard tissue defect
D7995	Synthetic graft - mandible or facial bones, by report
D7996	Implant - mandible for augmentation purposes (excluding alveolar ridge), by report
D7997	Appliance removal (not by dentist who placed appliance), includes removal of archbar

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Description of Services

Orthognathic surgery is the surgical correction of skeletal abnormalities of the mandible (lower jaw), maxilla (upper jaw), or both. These abnormalities may be recognized at or shortly after birth (congenital anomaly) or may not become apparent until the individual grows and develops. The abnormalities may also be the result of traumatic injuries or secondary to systemic diseases. The primary goal of treatment is to improve facial form and function by correcting the skeletal abnormality. Often, the severity of these abnormalities necessitates surgical correction in combination with other rehabilitative and nonsurgical therapies, including orthodontics (American Association of Oral and Maxillofacial Surgeons, 2020).

Clinical Evidence

In a 2025 systematic review, Zheng et al. analyzed the changes in oral function–related quality of life before and after orthognathic surgery. Included were 17 clinical controlled trials and cohort studies, with individuals over age 16 years who underwent orthognathic surgery and who had quality of life assessed using the Oral Health Impact Profile and/or Orthognathic Quality of Life Questionnaire before and after surgery (seven studies utilized both questionnaires for evaluation). The number of individuals in the included studies ranged from 20–228. Follow-up periods ranged from one week to 12 months following debanding. The results showed an overall improvement in oral health related quality of life following orthognathic surgery across all domains that included chewing, and speech and taste. Improvements were not dependent on age or gender. The authors concluded that orthognathic surgery improves all oral function-related quality of life measurements. Limitations include heterogeneity across studies on the timing of assessments and a lack of studies on the long term effects of the surgery. Additional studies addressing these limitations are needed to validate these findings.

In a 2023 systematic review and meta-analysis, Bunpu et al. assessed the masticatory function in individuals before and following orthognathic surgery and compared it with normal occlusion, and orthodontic treatment alone. Overall, 21 studies (11 cohort studies and 10 before-after studies) that met the inclusion criteria were included in the qualitative synthesis, and 17 were included in the meta-analysis. There were 1,238 individuals included, and the follow-up period ranged from 2 weeks to 5 years. The outcomes measured were divided into three groups: (1) the results from the comminution method (any test in which the test food is comminuted into smaller particles and the particle sizes/volumes are measured); (2) bite force; and (3) occlusal contact area. The results showed that masticatory performance improves with orthognathic surgery but does not reach the same level as normal occlusion, and the severity of the skeletal deformity plays a significant role in the level of improvement. Masticatory performance in individuals who underwent orthodontic treatment alone was significantly improved and reached the same level as in normal occlusion individuals. The authors concluded that orthognathic surgery improves the level of masticatory function but may not reach that of a normal occlusion. Additional studies, with longer-term follow-up and the use of subjective results, are needed to validate these findings.

Mulier et al. (2021) conducted a systematic review to evaluate the long-term stability of dental and dentolabial changes following combined orthodontic and orthognathic surgical treatment, with a minimum follow-up period of 5 years. A total of 11 studies (two randomized controlled trials and nine retrospective) were included, with a postoperative follow-up conducted from 5 to 15 years. The quality of evidence was limited due to the retrospective design and small sample size in some of the studies. Despite these limitations, the length of follow-up and a detailed review of dental changes were considered strengths. Long-term changes were evaluated for overjet, overbite, maxillary, and mandibular incisor position and the relationship of lip position to maxillary and mandibular incisors. The authors concluded that the current evidence suggests variability of dental and dentolabial stability in both skeletal class II and III individuals. Recommendations include further prospective studies to develop guidelines for long-term follow-up assessment using computed tomography or cone-beam computed tomography imaging before a final conclusion can be determined.

Wei et al. (2018) conducted a systematic review of the literature to compare the difference in postoperative stability between a surgery-first/early orthognathic approach (SFEA) and a conventional orthodontics-first approach. A total of 12 observational studies met the inclusion criterion, with a total of 498 individuals. The studies were published from 2010 to 2017. Of the studies reviewed, seven studies used the Le Fort I osteotomy and bilateral sagittal split osteotomy, four studies used bilateral sagittal split osteotomy alone, and one study used the Le Fort I osteotomy and intraoral vertical ramus osteotomy. In all studies, rigid or semirigid internal fixation to fix the bony segment was used. A limitation of the review is that all studies were conducted retrospectively, which makes control for the confounding factors difficult. The authors concluded that SFEA may yield poorer postoperative stability than the conventional orthodontics-first approach; specifically, the mandible tends to rotate counterclockwise more in SFEA. Recommendations include careful consideration for screening of individuals, the amount of surgical movement, and the method of operation and fixation

when designing a surgical plan. Additional long-term and high-quality prospective studies, specific to evaluating postoperative stability of the SFEA, are needed to evaluate these findings.

Haas Junior et al. (2017) performed a systematic review of the literature on the stability and surgical complications of segmental Le Fort I osteotomy. A total of 599 titles/abstracts that were possibility related were identified. The inclusion criteria included an intervention study and analysis of stability and/or complications after maxillary osteotomy. The exclusion criteria included case reports, review of the literature, and samples of individuals. A total of 23 studies were included: 14 evaluating stability as the outcome and nine evaluating surgical complications. The studies were mostly retrospective (three used a prospective design) and published over a 25-year period (1991-2016). These studies included a total of 2,594 individuals, primarily women, with an age range of 19.5 to 28.5 years. The selected studies that addressed the outcome measure of stability were organized by stratifying surgical movement outcomes in the sagittal, vertical, and transverse planes. In the authors' analysis of these outcomes, they inferred that instability was greater in terms of dental movement than in skeletal movement, which implies that preoperative and postoperative orthodontic treatment is the main factor of recurrence after maxillary expansion and is heightened by the fact that the main goal of such combined orthodontic-surgical treatment is to correct crossbite. In this systematic review, surgical complications were also analyzed. Nine studies evaluated this outcome in a sample of 2,078 individuals. Overall, only 177 (8.5%) experienced a complication. The authors believe that the retrospective design of the included studies may lead to an underestimation, but the prevalence of complication is actually overestimated because of the convenience sampling strategy that included studies reporting surgical complications only. The authors concluded that the risk of complications after segmental Le Fort I osteotomy is in fact lower than 8.5%. Limitations of this systematic review include inclusion of non-peer-reviewed literature and a conclusion relying primarily on observational studies.

Yang et al. (2017) performed a systematic literature review and meta-analysis of published comparative studies on the stability, efficacy, and surgical results of the surgery-first approach (SFA) vs those of the conventional three-stage method orthognathic surgery. Ten nonrandomized controlled studies, with a total of 513 individuals, met the inclusion criteria. These studies were published from 2010 to 2016. The outcomes consisted of treatment duration, postoperative stability, surgical movement, and postoperative occlusion. The primary limitation is that only 10 nonrandomized studies were included; this small sample and nonrandomization could increase the risk of bias. The findings indicate that individuals in the SFA group benefited from a shorter total treatment duration [weighted mean difference (WMD), -5.25; 95% CI, -8.21 to -2.29; $p = 0.0005$], similar postoperative stability of the mandible (WMD, 0.35 mm; 95% CI, -0.24 to 0.94; $p = 0.55$) and maxilla (WMD, 0.13 mm; 95% CI, -0.35 to 0.60; $p = 0.60$), similar surgical movements, and other surgical results. The authors concluded that SFA is an efficient alternative to the conventional three-stage method, with a shorter total treatment duration, similar postoperative stability, and other surgical results, but that it had longer postoperative time in orthodontics.

Clinical Practice Guidelines

American Association of Oral and Maxillofacial Surgeons (AAOMS)

Clinical practice guidelines have been published by the AAOMS on indications for orthognathic surgery (2025). The guidelines state that surgery may be indicated and medically necessary for:

- Anteroposterior discrepancies: Established norm of 2 mm
 - Maxillary/mandibular incisor relationship
 - Horizontal overjet of + 5 mm or more
 - Horizontal overjet of 0 to a negative value
 - Maxillary/mandibular anteroposterior molar relationship discrepancy of 4 mm or more (norm = 0 to 1 mm)
 - These values represent 2 or more standard deviations from published norms
- Vertical discrepancies
 - Presence of a vertical facial skeletal deformity, which is 2 or more standard deviations from published norms for accepted skeletal landmarks
 - Open bite
 - No vertical overlap of anterior teeth
 - 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
 - Presence of a transverse skeletal discrepancy, which is 2 or more standard deviations from published norms
 - 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
- Asymmetries
 - Anteroposterior, transverse, or lateral asymmetries greater than 3 mm with concomitant occlusal asymmetry

These indications provide verifiable clinical measurements to significant facial skeletal deformities and maxillary and/or mandibular facial skeletal deformities associated with masticatory malocclusion. In addition to these conditions, orthognathic surgery may be indicated in cases in which there are specific documented signs of dysfunction, which may include airway dysfunction (e.g., sleep apnea), temporomandibular joint disorders, psychosocial disorders, and speech disorders.

U.S. Food and Drug Administration (FDA)

This section is to be used for informational purposes only. FDA approval alone is not a basis for coverage.

Orthognathic surgery is a procedure and, therefore, not subject to regulation by the FDA.

References

American Association of Oral and Maxillofacial Surgeons (AAOMS). Clinical Paper. Indications for orthognathic surgery. 2025. Available at: https://aaoms.org/wp-content/uploads/2025/01/ortho_indications.pdf. Accessed December 31, 2025.

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Zheng L, Saddki N, Su L, et al. The impact of orthognathic surgery on oral function-related quality of life: a systematic review. Oral Maxillofac Surg. 2025 Oct 21;29(1):181.

Policy History/Revision Information

Date	Summary of Changes
06/01/2026	<p>Medical Records Documentation Used for Reviews</p> <ul style="list-style-type: none"> • Added language to indicate: <ul style="list-style-type: none"> ○ Benefit coverage for health services is determined by the federal, state, or contractual requirements, and applicable laws that may require coverage for a specific service ○ Medical records documentation may be required to assess whether the member meets the clinical criteria for coverage but does not guarantee coverage of the service requested ○ The patient's medical record must contain documentation that fully supports the medical necessity for the requested services ○ This documentation includes but is not limited to relevant medical history, physical examination, and results of pertinent diagnostic tests or procedures ○ Documentation supporting the medical necessity should be legible, maintained in the patient's medical record, and must be made available upon request <p>Supporting Information</p> <ul style="list-style-type: none"> • Updated <i>Clinical Evidence</i> and <i>References</i> sections to reflect the most current information • Archived previous policy version CS088TN.W

Instructions for Use

This Medical Policy provides assistance in interpreting UnitedHealthcare standard benefit plans. When deciding coverage, the federal, state or contractual requirements for benefit plan coverage must be referenced as the terms of the federal, state or contractual requirements for benefit plan coverage may differ from the standard benefit plan. In the event of a conflict, the federal, state or contractual requirements for benefit plan coverage govern. Before using this policy, check the

federal, state or contractual requirements for benefit plan coverage. UnitedHealthcare reserves the right to modify its policies and guidelines as necessary. This Medical Policy is provided for informational purposes. It does not constitute medical advice.

UnitedHealthcare may also use tools developed by third parties, such as the InterQual[®] criteria, to assist us in administering health benefits. The UnitedHealthcare Medical Policies are intended to be used in connection with the independent professional medical judgment of a qualified health care provider and do not constitute the practice of medicine or medical advice.