

# Surgical Treatments for Obstructive Sleep Apnea (OSA)

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Coverage Policy Surgical 18

<u>Version</u> 5

Member-specific benefits take precedence over medical policy and benefits may vary across plans. Refer to the individual's benefit plan for details \*.

## Purpose:

This policy addresses the medical necessity of Surgical Treatments for Obstructive Sleep Apnea (OSA).

 Criteria for oral surgeries are listed in Surgical 34, Orthognathic Surgery and Surgical 03, Cosmetic and Reconstructive Surgery

# **Description & Definitions:**

**Drug-induced sleep endoscopy** is used to identify patterns of upper airway collapse that occurs in non-awake individuals to aid in treatment decisions.

**Hypoglossal nerve stimulation (HNS)** - Implantable Upper Airway Stimulation device that is implanted subcutaneously under the skin below the clavicle that delivers a stimulation to the hypoglossal nerve if late respiration is detected. Other name: hypoglossal nerve stimulation (HGNS)

**Surgical Obstructive Sleep Apnea (OSA) Treatments** are surgical procedures that eliminate tissues or polyps in the nose, throat or in the upper respiratory region that become blocked which cause an individual to pause in breathing during sleep.

**Uvulopalatopharyngoplasty (UPPP)** is a surgical procedure to remove tissues in the back of mouth and/or top of the throat.

## Criteria:

**Surgical Treatments for Obstructive Sleep Apnea (OSA)** are considered medically necessary for **1 or more** of the following:

- Drug induced sleep endoscopy (DISE) may be indicated for 1 or more of the following:
  - o Individual is a child (less than 22 years of age) with indications of **1 or more** of the following:
    - Obstructive sleep apnea
    - Persistent Obstructive sleep apnea following Adenotonsillectomy
    - At the time of Adenotonsillectomy for children at high risk of persistent Obstructive sleep apnea as indicated by 1 or more of the following:

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- severe baseline disease, defined as an obstructive Apnea hypopnea index >10 events/hour
- obesity
- craniofacial syndromes including Down syndrome
- neuromuscular disorders
- o Individual is an adult (22 years of age or older) with All of the following:
  - Evaluation needed for appropriateness of FDA-approved hypoglossal nerve stimulation (i.e.
     Confirmed absence of complete concentric collapse at the soft palate level)
  - Individual meets the following criteria for implantation of Hypoglossal Nerve Stimulation device for Obstructive Sleep Apnea including ALL of the following:
    - Diagnosis of moderate to severe obstructive sleep apnea (OSA)
    - Body mass index (BMI) is less than 35 kg/m2
    - A polysomnography (PSG) demonstrating an apnea-hypopnea index (AHI) of 15 to 65 events per hour within 24 months of initial consultation for hypoglossal nerve stimulation (HNS) implant
    - Individual has predominantly obstructive events (defined as central and mixed apneas less than 25% of the total apnea-hypopnea index (AHI))
    - Shared Decision-Making (SDM) between the Individual, Sleep physician, and qualified otolaryngologist (if they are not the same) who determines that the individual demonstrates 1 or more of the following:
      - Continuous positive airway pressure (CPAP) failure (defined as apneahypopnea index (AHI) greater than 15 despite CPAP usage)
      - Continuous positive airway pressure (CPAP) intolerance (defined as CPAP machine-derived compliance reporting with usage less than 4 hours a night for at least 70% of the nights in 1 month or the CPAP has been returned) despite CPAP interface and/or setting optimizations
    - Absence of anatomical findings that would compromise performance of device (e.g., tonsil size 3 or 4 per standardized tonsillar hypertrophy grading scale)
    - Use of Hypoglossal Nerve Stimulation (HNS) devices with FDA-approval for implantation to treat OSA (e.g., Inspire® II Upper Airway Stimulator)
- Hyoid myotomy and suspension, and/or mandibular osteotomy with genioglossus (tongue) advancement for
  the treatment of obstructive sleep apnea (OSA) is for individuals who have failed treatment with continuous
  positive airway pressure (CPAP) and have demonstrated significant soft tissue and/or tongue base abnormalities
  with airway collapse. Evidence of hypopharyngeal obstruction may be documented by either fiberoptic
  endoscopy or cephalometric radiographs
- Hypoglossal Nerve Stimulation for Obstructive Sleep Apnea may be covered for ALL of the following:
  - Diagnosis of moderate to severe obstructive sleep apnea (OSA)
  - o Individual is 22 years of age or older
  - Body mass index (BMI) is less than 35 kg/m2
  - A polysomnography (PSG) demonstrating an apnea-hypopnea index (AHI) of 15 to 65 events per hour within 24 months of initial consultation for hypoglossal nerve stimulation (HNS) implant
  - Individual has predominantly obstructive events (defined as central and mixed apneas less than 25% of the total apnea-hypopnea index (AHI))
  - Shared Decision-Making (SDM) between the Individual, Sleep physician, and qualified otolaryngologist (if they are not the same) who determines that the individual demonstrates **1 or more** of the following:
    - Continuous positive airway pressure (CPAP) failure (defined as apnea-hypopnea index (AHI) greater than 15 despite CPAP usage)
    - Continuous positive airway pressure (CPAP) intolerance (defined as CPAP machine-derived compliance reporting with usage less than 4 hours a night for at least 70% of the nights in 1 month or the CPAP has been returned) despite CPAP interface and/or setting optimizations
  - Confirmed absence of complete concentric collapse at the soft palate level by a drug-induced sleep endoscopy (DISE) procedure
  - Absence of anatomical findings that would compromise performance of device (e.g., tonsil size 3 or 4 per standardized tonsillar hypertrophy grading scale)
  - Use of Hypoglossal Nerve Stimulation (HNS) devices with FDA-approval for implantation to treat OSA (e.g., Inspire® II Upper Airway Stimulator)
- Jaw realignment surgery as a first line treatment for individuals with a documented severe jaw/facial bony abnormality contributing to obstructive sleep apnea (OSA), including, but not limited to, craniofacial abnormalities, micrognathia, retrognathia or small retro-positioned jaw with associated overbite and small mouth

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- Jaw realignment surgery (i.e., maxillomandibular advancement) for individuals who have failed treatment with continuous positive airway pressure (CPAP) and either Uvulopalatopharyngoplasty (UPPP) or genioglossus advancement and/or hyoid myotomy with suspension or both of these surgical procedures
- Tracheostomy for individuals with the most severe obstructive sleep apnea not manageable by other
  interventions. (Requests for tracheostomy for obstructive sleep apnea (OSA) are subject to Medical Director
  review)
- Uvulopalatopharyngoplasty (UPPP) may be indicated when ALL of the following are present:
  - Obstructive sleep apnea, and polysomnography findings confirm apnea-hypopnea index 5 or greater
  - o Obstructive sleep apnea symptoms, as indicated by **ALL** of the following:
    - Excessive daytime sleepiness documented using Epworth Sleepiness Scale[A] or other validated scale
    - Excessive daytime sleepiness interferes with daily activity or work (eg, causes safety issues).
  - CPAP trial with well-supported follow-up and involvement by qualified sleep specialist has clearly failed due to 1 or more of the following:
    - Claustrophobia
    - Difficulty tolerating pressure
    - Failure to improve symptoms
    - Inability to sleep with CPAP device
    - Intolerance of nasal or mouth interface
    - Nasal irritation
    - Removal of CPAP device unintentionally during sleep
  - o Isolated oropharyngeal narrowing demonstrated as source of airway obstruction
  - Use of oral appliance has resulted in 1 or more of the following:
    - Failure to improve symptoms
    - Intolerance to device
    - Physician considers use of dental device inappropriate given patient's anatomy.
  - o Weight not a concern, or weight loss tried and failed in obese patient.

Surgical Treatments for Obstructive Sleep Apnea (OSA) are considered not medically necessary for any use other than those indicated in clinical criteria, to include but not limited to:

- Cardiac (Atrial) Pacing
- Cautery-Assisted Palatal Stiffening Operation (CAPSO)
- Coblation For Pediatric Lymphatic Malformation In The Oral Cavity
- Electrosleep therapy
- Flexible Positive Airway Pressure
- Injection Snoreplasty
- Nasal surgery employing any technique, including nasal valve surgery, septoplasty, turbinectomy, polypectomy and laser or radiofrequency ablation (volumetric tissue reduction) of the nasal turbinates are not covered for the treatment of obstructive sleep apnea.
- Oral surgery which is part of an orthodontic treatment program is not covered.
- Osteotomy required to correct masticatory insufficiency requires Medical Director approval. (See Orthognathic Surgery – Surgical 34).
- Palatal Implants
- Partial Glossectomy
- Radiofrequency ablation of nasal turbinates for chronic nasal obstruction due to hypertrophy of the inferior turbinate is not covered
- Radiofrequency Volumetric Tissue Reduction (RFVTR) of the soft palate and/or the base of the tongue, including Somnoplasty and Coblation for obstructive sleep apnea
- Reconstruction following injury which occurs while an individual is enrolled in the Plan will be covered under Accidental Dental coverage
- The Pillar system
- The Repose System
- Transoral robotic surgery (TORS)
- Transpalatal Advancement Pharyngoplasty
- Tongue Base Reduction Surgery

- Tongue Base Suspension Surgery (-AIRvance system, Repose system, and Encore Tongue Suspension System
- Uvulectomy and Laser Assisted Uvuloplasty (LAUP)

# Coding:

# Medically necessary with criteria:

Description
Excision of torus mandibularis
Osteotomy, mandible, segmental;
Osteotomy, mandible, segmental; with genioglossus advancement
Osteotomy, maxilla, segmental (eg, Wassmund or Schuchard)
Hyoid myotomy and suspension
Palatopharyngoplasty (eg, uvulopalatopharyngoplasty, uvulopharyngoplasty)
Drug-induced sleep endoscopy, with dynamic evaluation of velum, pharynx, tongue base, and larynx for evaluation of sleep-disordered breathing, flexible, diagnostic
Insertion or replacement of cranial neurostimulator generator or receiver, direct or inductive coupling; with connection to 2 or more electrode arrays
Revision or removal of cranial neurostimulator pulse generator or receiver Removal of component(s) of a HNS for treatment of OSA
Incision for implantation of cranial nerve (eg, vagus nerve) neurostimulator electrode array and pulse generator
Revision or replacement of cranial nerve (e.g. vagus nerve) neurostimulator electrode array, including connection to an existing pulse generator, when performed
Removal of cranial nerve (e.g. vagus nerve) neurostimulator electrode array and pulse generator, when performed
Open implantation of hypoglossal nerve neurostimulator array, pulse generator, and distal respiratory sensor electrode or electrode array
Revision or replacement of hypoglossal nerve neurostimulator array and distal respiratory sensor electrode or electrode array, including connection to existing pulse generator
Removal of hypoglossal nerve neurostimulator array, pulse generator, and distal respiratory sensor electrode or electrode array

# Considered Not Medically Necessary:

Coding	Description
41512	Tongue base suspension, permanent suture technique

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42140	Uvulectomy, excision of uvula
42299	Unlisted procedure, palate, uvula
S2080	Laser-assisted uvulopalatoplasty (LAUP)

U.S. Food and Drug Administration (FDA) - approved only products only.

## **Document History:**

## Revised Dates:

- 2022: May, September
- 2021: November
- 2020: January,
- 2016: February
- 2015: April
- 2013: August
- 2012: November
- 2011: August
- 2010: September
- 2009: August
- 2008: August
- 2002: September
- 1998: September
- 1995: March

#### Reviewed Dates:

- 2023: September
- 2019: November
- 2018: April
- 2017: February
- 2015: August
- 2014: August
- 2012: August
- 2010: August
- 2007: December
- 2005: August
- 2004: September, December
- 2003: September
- 2001: November
- 2000: November
- 1999: October
- 1996: August

#### Effective Date:

April 1994

## References:

Specialty Association Guidelines; Government Regulations; Winifred S. Hayes, Inc; UpToDate; Literature Review; Specialty Advisors; National Coverage Determination (NCD); Local Coverage Determination (LCD).

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LCD: Surgical Treatment of Obstructive Sleep Apnea (OSA) (L34526). (2023, Jul 27). Retrieved Aug 16, 2023, from Centers for Medicare and Medicaid Services: https://www.cms.gov/medicare-coverage-database/view/lcd.aspx?lcdid=34526&ver=22&keyword=sleep%20apnea&keywordType=starts&areald=s53&docType=NCA,CAL,NCD,MEDCAC,TA,MCD,6,3,5,1,F,P&contractOption=all&sortBy=relevance&bc=1

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Referral of adults with obstructive sleep apnea for surgical consultation: an American Academy of Sleep Medicine clinical practice guideline. (2021, Dec 01). Retrieved Aug 16, 2023, from Academy of Sleep Medicine: https://jcsm.aasm.org/doi/10.5664/jcsm.9592#d1e483

Sec. 882.5860 Implanted neuromuscular stimulator. (2023, Jun 07). Retrieved Aug 17, 2023, from Code of Federal Regulations (National Archives): https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfCFR/CFRSearch.cfm?fr=882.5860&SearchTerm=nerve%20 stimulation

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Weaver, E., & Kapur, V. (2023, Jun 12). Surgical treatment of obstructive sleep apnea in adults. Retrieved Aug 16, 2023, from UpToDate: <a href="https://www.uptodate.com/contents/surgical-treatment-of-obstructive-sleep-apnea-in-adults?search=obstructive%20sleep%20apnea&topicRef=7695&source=see\_link#H126399556">https://www.uptodate.com/contents/surgical-treatment-of-obstructive-sleep-apnea-in-adults?search=obstructive%20sleep%20apnea&topicRef=7695&source=see\_link#H126399556</a>

## Special Notes: \*

Medical policies can be highly technical and complex and are provided here for informational purposes. These medical policies are intended for use by health care professionals. The medical policies do not constitute medical advice or medical care. Treating health care professionals are solely responsible for diagnosis, treatment, and medical advice. Sentara Health Plan members should discuss the information in the medical policies with their treating health care professionals. Medical technology is constantly evolving, and these medical policies are subject to change without notice, although Sentara Health Plan will notify providers as required in advance of changes that could have a negative impact on benefits.

Services mean both medical and behavioral health (mental health) services and supplies unless We specifically tell You otherwise. We do not cover any services that are not listed in the Covered Services section unless required to be covered under state or federal laws and regulations. We do not cover any services that are not Medically Necessary. We sometimes give examples of specific services that are not covered but that does not mean that other similar services are covered. Some services are covered only if We authorize them. When We say You or Your We mean You and any of Your family members covered under the Plan. Call Member Services if You have questions.

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# Keywords:

Oral Surgery, Uvulopalatopharyngoplasty, UPPP, Surgical Obstructive Sleep Apnea, OSA, Surgical 18, jaws, mouth, lips, tongue, hard palates, soft palates, temporomandibular Joint disease, arthroscopic joint repair, open joint repair, excision of the joint, fractures, facial bones, mandible, maxilla, malignant tumors, symptomatic tumors, cysts, gums, cheeks, salivary glands, tori, exostoses, soft tissue breakdown, sinuses, salivary ducts, periodontal structures, Cleft Palate repair, Osteotomy, Orthodontic treatment, congenital deformities, tumor, functional defect, Apnea-hypopnea index, AHI, respiratory disturbance index, RDI, Hypertension, cardiac arrhythmias, Pulmonary hypertension, ischemic heart disease, Impaired cognition, mood disorders, history of stroke, Excessive daytime sleepiness, Epworth Sleepiness Scale, CPAP, continuous positive airway pressure, Hyoid myotomy, mandibular osteotomy, Jaw realignment surgery, Tracheostomy

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