Obstructive Sleep Apnea (OSA) Surgical Treatments

Medical Coverage Policy

Effective Date: 09/26/2013
Revision Date: 09/26/2013
Review Date: 08/22/2013
Policy Number: CLPD-0419-010

Change Summary: Updated Coverage Limitations

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Description
Obstructive sleep apnea (OSA) is a common sleep disorder in which the muscles of the soft palate and throat intermittently relax during sleep, causing an obstruction that blocks the upper airway. This causes breathing to become difficult and noisy (snoring). Individuals with OSA, experience cessation of breathing from ten to sixty seconds at a time, and can occur up to 120 times an hour during sleep. As a result, oxygen levels in the bloodstream fall, which may lead to high blood pressure, stroke, heart attack and/or abnormal heart rhythms.

Surgical treatments of OSA includes the following procedures:

- Cautery assisted palatal stiffening operation (CAPSO) is an office based procedure,
performed under local anesthesia, for the treatment of palatal snoring in which a portion of the soft palate is removed. *(Refer to Coverage Limitations section)*

- Injection snoreplasty is a procedure that is suggested for the treatment of snoring (not sleep disorders). It involves the injection of a hardening agent into the lining of the palate at the base of the uvula. The result will cause the palate to stiffen and will reduce the palatal flutter or primary snoring. *(Refer to Coverage Limitations section)*

- Laser-assisted uvulopalatoplasty (LAUP) removes a portion of the soft palate and uvula with laser ablation to enlarge the nasooropharyngeal opening. The laser technique allows surgeons to perform the procedure under local anesthesia as an outpatient procedure. *(Refer to Coverage Limitations section)*

- Mandibular osteotomy repositions the jaw and lower teeth, and can also act to advance the tongue relative to the hypopharynx. The base of the tongue can act to obstruct the airway during sleep, causing OSA.

- Maxillar osteotomy is a surgery that repositions the bones of the midface and the upper teeth.

- Maxillomandibular advancement (MMA) (also referred to as telegnathic surgery, bimaxillary advancement, Bi-Max, and maxillomandibular osteotomy) is a surgical procedure that repositions both the upper jaw (maxilla) and lower jaw (mandible) forward. MMA is often performed in combination with genioglossus advancement, which is a surgical procedure where the base of the tongue is pulled forward to increase the airway size.

- Nasal surgery of the turbinates such as: turbinectomy, laser cautery, electrocautery, cryotherapy or submucosal resection, for symptomatic nasal obstruction or turbinate hypertrophy. *(Refer to Coverage Limitations section)*

- Osteotomy is proposed to relieve sleep apnea caused by hypopharyngeal obstruction or for the treatment of hypopharyngeal restriction.

- Palatal implants for OSA are intended to stiffen the structure of the soft palate. Three implants are inserted high up into the soft palate tissue under local anesthesia. The intended result is to change the airflow characteristics of the soft
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- palate by stiffening and cause a reduction in airflow obstruction. An example of palatal implants is the Pillar® Palatal Implant System. (Refer to Coverage Limitations section)

- Radiofrequency volumetric tissue reduction (RFVTR), also known as Somnoplasty® or Coblation®, is a surgical technique that utilizes radiofrequency ablation to produce finely controlled necrotic lesions to tissues of the soft palate, tongue, tonsils and turbinates. The desired effect is that the necrosis will lead to the formation of scar tissue, which upon healing should shrink and tighten. It was designed for the treatment of snoring and for the reduction of OSA. (Refer to Coverage Limitations section)

- Septoplasty is the surgical correction of defects and deformities of the nasal septum (the partition between the nostrils).

- The Repose® Bone Screw System is intended for anterior tongue base suspension by fixation of the soft tissue of the tongue base to the mandible bone using a bone screw with pre-threaded suture. It is indicated for the treatment of OSA. (Refer to Coverage Limitations section)

- Tonsillectomy and/or adenoidectomy are procedures that are performed for airway obstruction, especially in children. Tonsillectomy is the surgical removal of the tonsils, which are a collection of lymphoid tissue covered by mucous membranes located on either side of the throat. An adenoidectomy is the surgical removal of the adenoid glands. The adenoids are masses of lymphoid tissue located at the back of the nose in the upper part of the throat.

- Tracheostomy is a surgical procedure in which an opening is created through the neck into the windpipe (trachea) and a tube placed through this opening to provide an airway.

- Uvulectomy is the surgical removal of the uvula. (Refer to Coverage Limitations section) It may be performed as part of an uvulopalatopharyngoplasty (UPPP) if the uvula is enlarged in patients diagnosed with OSA.

- Uvulopalatopharyngoplasty (UPPP) is the surgical revision of the posterior soft palate and adjacent tissue to relieve partial obstruction of the nasopharyngeal airway that causes OSA.

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Coverage Determination

Note: All requests for surgical treatments for OSA require review by a Medical Director.

Humana members MAY be eligible under the Plan for the following surgical treatments for OSA:

**Jaw Realignment Surgery (genioglossal advancement, hyoid myotomy and suspension, mandibular osteotomy, maxillomandibular advancement)**

Humana members MAY be eligible under the Plan for genioglossal advancement, hyoid myotomy and suspension, mandibular osteotomy, and maxillomandibular advancement when diagnosed with obstructive sleep apnea and upon failure of positive airway pressure (PAP) therapy. For information regarding PAP therapy, please refer to [Obstructive Sleep Apnea (OSA) and Other Sleep Related Breathing Disorders Nonsurgical Treatments Medical Coverage Policy](http://apps.humana.com/tad/tad_new/home.aspx).

**Note:** Check contract language before making any determination. Some contracts specifically exclude orthognathic surgery. For information regarding orthognathic surgery, please refer to [Orthognathic Surgery Medical Coverage Policy](http://apps.humana.com/tad/tad_new/home.aspx).

**Note:** Humana medical Plans do not cover orthodontic treatment that is provided as an adjunct to jaw realignment surgery; such treatment is considered dental in nature, and therefore, not covered under the medical benefits.

**Septoplasty**

Humana members MAY be eligible under the Plan for septoplasty when there is documentation that PAP has been ineffective or the patient is unable to tolerate PAP, and the medical necessity criteria for septoplasty are met. For information regarding septoplasty, please refer to [Rhinoplasty/Septoplasty Medical Coverage Policy](http://apps.humana.com/tad/tad_new/home.aspx) and for information regarding PAP therapy, please refer to [Obstructive Sleep Apnea (OSA) and Other Sleep Related Breathing Disorders Nonsurgical Treatments Medical Coverage Policy](http://apps.humana.com/tad/tad_new/home.aspx).

**Tonsillectomy and/or Adenoidectomy**

Humana members MAY be eligible under the Plan for a tonsillectomy and/or adenoidectomy for adult and pediatric patients diagnosed with OSA.

**Tracheostomy**

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Humana members **MAY** be eligible under the Plan for tracheostomy in patients diagnosed with OSA who have failed other medical or surgical options or when no other medical or surgical options are available.

**UPPP**
Humana members **MAY** be eligible under the Plan for UPPP for those who meet criteria for PAP and have demonstrated inability to tolerate or failure of PAP devices after a one month trial. For information regarding PAP therapy, please refer to Obstructive Sleep Apnea (OSA) and Other Sleep Related Breathing Disorders Nonsurgical Treatments Medical Coverage Policy.

### Coverage Limitations
Humana members may **NOT** be eligible under the Plan for obstructive sleep apnea surgical treatments for any indications/treatments other than those listed above, including, but may not be limited to:

- Cautery assisted palatal stiffening operation (CAPSO); OR
- Injection snoreplasty; OR
- Laser assisted uvulopalatoplasty (LAUP); OR
- Nasal turbinate resection; OR
- Palatal implants; OR
- Radiofrequency volumetric tissue reduction (RFVTR); OR
- Repose® bone screw system); OR
- Uvulectomy

These technologies are considered experimental/investigational as they are not identified as widely used and generally accepted for the proposed use as reported in nationally recognized peer-reviewed medical literature published in the English language.

Humana members may **NOT** be eligible under the Plan for obstructive sleep apnea surgical treatments for upper airway resistance syndrome (UARS). These technologies are considered experimental/investigational as they are not identified as widely used and generally accepted for the proposed use as reported in nationally recognized peer-reviewed medical literature published in the English language.

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Background

You can learn more about OSA from the following site:

- American Sleep Apnea Association (ASAA) - http://www.sleepapnea.org

Medical Alternatives

Alternatives to surgical treatment for OSA include, but may not be limited to:

- Abstinence from alcohol and hypnotic sedatives, especially at bedtime.
- Oral appliances. For information regarding oral appliances, please refer to Obstructive Sleep Apnea (OSA) and Other Sleep Related Breathing Disorders Nonsurgical Treatments Medical Coverage Policy.
- Positive airway pressure (PAP) devices, such as continuous positive airway pressure (CPAP) and bi-level positive airway pressure (BPAP). For information regarding PAP therapy, please refer to Obstructive Sleep Apnea (OSA) and Other Sleep Related Breathing Disorders Nonsurgical Treatments Medical Coverage Policy.
- Weight loss through a diet and exercise program.

To make the best health decision for your individual needs, consult your physician.

Provider Claims Codes

All provider claims codes surrounding this topic may not be included in the following table:

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<td>21206</td>
<td>Osteotomy, maxilla, segmental (eg, Wassmund or Schuchard)</td>
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<tr>
<td>21685</td>
<td>Hyoid myotomy and suspension</td>
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<td>30140</td>
<td>Submucous resection inferior turbinate, partial or complete, any method</td>
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<td>30520</td>
<td>Septoplasty or submucous resection, with or without cartilage scoring, contouring or replacement with graft</td>
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<td>30801</td>
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<td>Tracheostomy, planned (separate procedure); younger than 2 years</td>
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<td>41512</td>
<td>Tongue base suspension, permanent suture technique</td>
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<td>41530</td>
<td>Submucosal ablation of the tongue base, radiofrequency, 1 or more sites, per session</td>
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<tr>
<td>42140</td>
<td>Uvulectomy, excision of uvula</td>
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<td>Tonsillectomy and adenoidectomy; younger than age 12</td>
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<td>42821</td>
<td>Tonsillectomy and adenoidectomy; age 12 or over</td>
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<td>42825</td>
<td>Tonsillectomy, primary or secondary; younger than age 12</td>
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<td>Tonsillectomy, primary or secondary; age 12 or over</td>
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<td>42830</td>
<td>Adenoidectomy, primary; younger than age 12</td>
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<td>Adenoidectomy, primary; age 12 or over</td>
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<td>42835</td>
<td>Adenoidectomy, secondary; younger than age 12</td>
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<td>Adenoidectomy, secondary; age 12 or over</td>
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CPT® Category III Code(s) Description

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<td>C9727</td>
<td>Insertion of implants into the soft palate; minimum of 3 implants</td>
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<td>S2080</td>
<td>Laser-assisted uvulopalatoplasty (LAUP)</td>
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ICD-9 Code(s) Description

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<tr>
<td>21.5</td>
<td>Submucous resection of nasal septum</td>
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<td>21.61</td>
<td>Turbinectomy by diathermy or cryosurgery</td>
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<td>Other turbinectomy</td>
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<td>21.88</td>
<td>Other septoplasty</td>
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<td>25.1</td>
<td>Excision or destruction of lesion or tissue of tongue</td>
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<td>25.59</td>
<td>Other repair and plastic operations on tongue</td>
<td>Not Covered if used to report Repose® bone screw system</td>
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<td>25.99</td>
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<td>Other plastic repair of palate</td>
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<td>Repair of uvula</td>
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<table>
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<tr>
<th>Code</th>
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<td>Other operations on uvula</td>
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<td>Temporary tracheostomy</td>
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<td>Mediastinal tracheostomy</td>
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<td>31.29</td>
<td>Other permanent tracheostomy</td>
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<td>76.63</td>
<td>Osteoplasty (osteotomy) of body of mandible</td>
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<tr>
<td>83.02</td>
<td>Myotomy</td>
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</table>

### Medical Terms

- **Ablation** - Surgical excision or amputation of a body part or tissue.

- **Adenoid** - Enlarged mass of lymphoid tissue in the upper pharynx, often obstructing breathing through the nasal passages.

- **Apnea** - Cessation of breathing.

- **Bi-Level Positive Airway Pressure (BPAP)** - Type of CPAP in which both inspiratory and expiratory pressures are set above atmospheric levels.

- **Continuous Positive Airway Pressure (CPAP)** - Airway treatment using slight positive pressure during inhalation to increase the volume of inspired air and to decrease the work of breathing.

- **Cryotherapy** - Technique that uses an extremely cold liquid or instrument to freeze and destroy cells or tissues that that require removal.

- **Electrocautery** - Technique using a high voltage, high frequency alternating current

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that is passed through an electrode to generate heat; used in surgical dissection and hemostasis.

**Ethmoid Bone** - Light, spongy bone located between the orbits, forming part of the walls and septum of the superior nasal cavity.

**Genioglossal** - Of or relating to the muscle that extends from the chin to the tongue.

**Hyoid** - “U” shaped bone at the base of tongue.

**Hypopharynx** - Laryngeal part of the pharynx extending from the hyoid bone to the lower margin of the cricoid cartilage.

**Hypopnea** - Breathing that is shallower and/or slower than normal.

**Lymphoid** - Tissue making up the lymphatic system.

**Mandibular** - Refers to the lower jaw.

**Maxillary** - Refers to the bone of the upper jaw.

**Myotomy** - Incision or division of a muscle.

**Nasopharyngeal** - Refers to the upper part of the throat behind the nose.

**Necrotic** - Relating to or affected by death of cells or tissues through injury or disease, especially in a localized area of the body.

**Osteotomy** - Surgical cutting of a bone; the bones of the jaw.

**Palate** - Roof of the mouth.

**Pharynx** - Cavity at the back of the mouth.

**Radiofrequency Ablation** - The use of electrodes to generate heat and destroy abnormal tissue.
Tonsil - Small mass of lymphoid tissue, especially either of two masses embedded in the lateral walls of the opening between the mouth and the pharynx, of uncertain behavior, but believed to help protect the body from respiratory infections.

Turbinate - Extension of the ethmoid bone located along the lateral wall of the nose, covered by mucous membranes.

Uvula - Central tag like structure hanging down from the edge of the soft palate.

Uvulectomy - Removal of the uvula.

References


American Academy of Sleep Medicine (AASM) Website. Clinical guideline for the


Hayes, Winifred S. Health Technology Brief (ARCHIVED). Repose® Tongue and Hyoid Suspension (THS) system (Medtronic Xomed Inc.) for obstructive sleep apnea.


