

**Policy #: 130**

**Original policy date: 10/96**  
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**Title**

**Minimally Invasive Surgery for Snoring, Obstructive Sleep Apnea/ Upper Airway Resistance Syndrome:**  
Laser-assisted uvuloplasty (LAUP)  
Radiofrequency volumetric tissue reduction of the tongue  
Radiofrequency volumetric tissue reduction of the palatal tissues  
Palatal stiffening procedures  
Cautery-assisted palatal stiffening procedure  
Implantation of palatal implants

**Description**

Obstructive sleep apnea (OSA) syndrome is characterized by repetitive episodes of upper airway obstruction due to the collapse and obstruction of the upper airway during sleep. In patients with OSA, the normal pharyngeal narrowing is accentuated by anatomic factors, such as a short, fat “bull” neck, elongated palate and uvula, and large tonsillar pillars with redundant lateral pharyngeal wall mucosa. Furthermore, OSA may be associated with a wide variety of craniofacial abnormalities, including micrognathia, retrognathia, or maxillary hypoplasia. In addition, OSA is associated with obesity. Obstruction anywhere along the upper airway can result in apnea. Therefore, OSA is associated with a heterogeneous group of anatomic variants producing obstruction.

The hallmark clinical symptom of OSA is excessive snoring, although it is important to note that snoring can occur in the absence of OSA. The snoring abruptly ceases during the apneic episodes and during the brief period of patient arousal and then resumes when the patient again falls asleep. Sleep fragmentation associated with repeated arousal during sleep causes excessive daytime sleepiness that can lead to impairment of almost any daytime activity. In addition, sleep apnea indirectly affects the cardiovascular and pulmonary systems. For example, apnea leads to periods of hypoxia, alveolar hypoventilation, hypercapnia, and acidosis. This, in turn, can cause systemic hypertension, cardiac arrhythmias, and cor pulmonale. Systemic hypertension is common in patients with OSA. Severe OSA is also associated with decreased survival, presumably related to severe hypoxemia, hypertension, or an increase in automobile accidents related to daytime sleepiness. The final diagnosis of OSA rests on a combination of clinical evaluation and objective criteria to identify those levels of obstruction that are considered to be clinically significant.

A variant of OSA has been described, termed “upper airway resistance syndrome” (UARS), which is characterized by a partial collapse of the airway resulting in increased resistance to airflow. The increased respiratory effort required results in multiple sleep fragmentations, as measured by very short alpha EEG arousals. Snoring may not be a feature of UARS. The resistance to airflow is typically subtle and does not result in apneic or hypopneic events. However, it does result in increasingly negative intrathoracic pressure during inspiration, which can be measured using an esophageal manometer as an adjunct to a polysomnogram. Therefore, diagnosis rests on polysomnographic documentation of more than 10 EEG arousals per hour of sleep correlated with episodes of reduced intrathoracic pressure, as noted on esophageal manometry.

This policy addresses minimally invasive approaches, including laser-assisted uvulopalatoplasty (LAUP); radiofrequency ablation of palatal tissues and the tongue; and palatal stiffening procedures.

LAUP is an outpatient alternative that has been proposed as a treatment of snoring with or without associated OSA. In this procedure, superficial palatal tissues are sequentially reshaped using a carbon dioxide laser. The extent of the surgery is typically different than standard UPPP, since only part of the uvula and associated soft-palate tissues are reshaped. The procedure, as initially described, does not remove or alter tonsils or lateral pharyngeal wall tissues. The patient undergoes from 3 to 7 sessions at 3- to 4-week intervals. One purported advantage of LAUP is that the amount of tissue ablated can be titrated such that the treatment can be discontinued once snoring is eliminated. The LAUP cannot be considered an equivalent procedure to the standard UPPP, with the laser simply representing a surgical tool that the physician may opt to use. LAUP is considered a unique procedure, which raises its own issues of safety and, in particular, effectiveness.

Radiofrequency ablation of the soft palate is similar in concept to LAUP, although a different energy source is used. Radiofrequency is used to produce thermal lesions within the tissues rather than using a laser to ablate the tissue surface, which may be painful. For this reason, radiofrequency ablation appears to be growing in popularity as an alternative to LAUP. The Somnoplasty device is approved by the U.S. Food and Drug Administration (FDA) for radiofrequency ablation of palatal tissues for simple snoring and for the base of the tongue for OSA. In some situations, radiofrequency of the soft palate and base of tongue are performed together as a multilevel procedure.

Palatal stiffening procedures include a cautery-assisted palatal stiffening operation (CAPSO) and insertion of palatal implants. The CAPSO procedure uses cautery to induce a midline palatal scar designed to stiffen the soft palate to eliminate excessive snoring. The device is a cylindrical-shaped segment of braided polyester filaments that is permanently implanted submucosally in the soft palate. The Pillar™ Palatal Implant System (Restore Medical, St. Paul, MN) is an implantable device that has been cleared for marketing through the FDA 510(k) process. The labeled indication of the device is as follows:

“The Pillar™ Palatal Implant System is intended for the reduction of the incidence of airway obstructions in patients suffering from mild to moderate OSA (obstructive sleep apnea).”

**Note:** This policy considers only minimally invasive procedures for the treatment of obstructive sleep apnea (OSA)/upper airway resistance syndrome and snoring.

#### **When services are not covered for commercial products or for Medicare HMO Blue, Medicare PPO Blue, and Blue Medicare PFFS PlusRx**

We do not cover **radiofrequency volumetric tissue reduction of the tongue**, with or without radiofrequency reduction of the palatal tissues, for upper airway resistance syndrome or obstructive sleep apnea (OSA)<sup>1</sup> because they are considered investigational, as they do not meet our Medical Technology Assessment Guidelines, #350.

We do not cover **laser-assisted palatoplasty (LAUP) or radiofrequency volumetric tissue reduction of the palatal tissues** as a treatment for upper airway resistance syndrome or OSA<sup>1</sup> because they are considered investigational, as they do not meet our Medical Technology Assessment Guidelines, #350.

We do not cover **palatal stiffening procedures** including, but not limited to, cautery-assisted palatal stiffening operation, and the implantation of palatal implants as a treatment for upper airway resistance syndrome or OSA<sup>1</sup> because they are considered investigational, as they do not meet our Medical Technology Assessment Guidelines, #350.

We do not cover **laser-assisted palatoplasty (LAUP) or radiofrequency volumetric tissue reduction of the palatal tissues** in the treatment of snoring\* alone.<sup>1</sup>

We do not cover **palatal stiffening procedures** including, but not limited to, cautery-assisted palatal stiffening operation, and the implantation of palatal implants, in the treatment of snoring\* alone.<sup>1</sup>

\*Simple snoring in the absence of documented obstructive sleep apnea is not considered a medical condition; therefore, any surgical intervention, such as LAUP, radiofrequency volumetric tissue reduction of the palate, or palatal stiffening procedures, is considered not covered.<sup>1</sup>

#### Individual consideration

All our medical policies are written for the majority of people with a given condition. Each policy is based on medical science. For many of our medical policies, each individual's unique clinical circumstances may be considered in light of current scientific literature. For consideration of an individual patient, physicians may send relevant clinical information to:

#### For services already billed

Blue Cross Blue Shield of Massachusetts  
Provider Appeals  
PO Box 986065  
Boston, MA 02298

#### Prior to performance of service

Blue Cross Blue Shield of Massachusetts  
Case Creation/Medical Policy  
One Enterprise Drive  
Quincy, MA 02171  
Tel: 1-800-327-6716  
Fax: 1-888-641-5330

#### Managed care guidelines

**The services listed above are not covered by BCBSMA.**

- **For Medicare HMO Blue members:** Referrals are required for all visits to a specialist.
- For all other Managed Care plans, any specialist visit requires a referral, except for visits performed by OB/GYN specialists.
- Authorization is required for an inpatient admission.

#### Indemnity and PPO guidelines

**The services listed above are not covered by BCBSMA.**

All authorization requirements are determined by the individual's subscriber certificate, however:

- Authorization is required for an inpatient admission.
- Authorizations are not required for most outpatient services as determined by the individual's subscriber certificate.
- Referrals to a specialist are not required.

#### Other information

For our Medical Technology Assessment Guidelines, see document #350.

#### Coding information

*Procedure codes are from current CPT, HCPCS Level II, Revenue Code, and/or ICD-9-CM manuals, as recommended by the American Medical Association, Centers for Medicare and Medicaid Services and American Hospital Associations. Blue Cross Blue Shield Association national codes may be developed when appropriate.*

*The following codes are included below for informational purposes. Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.*

**Note:** The procedures noted below will reject as non-covered **for all Products**, leaving **no** patient balance because these procedures do not meet our Medical Technology Assessment Guidelines.

**CPT codes:**

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- **0088T:** submucosal radiofrequency tissue volume reduction of tongue base, one or more sites, per session (i.e., for treatment of obstructive sleep apnea syndrome) (*Deleted CPT code effective 1/1/09*)
- **41530:** submucosal ablation of the tongue base, radiofrequency, one or more sites, per session (*New CPT code effective 1/1/09*)

#### HCPCS codes:

- **S2080:** laser-assisted uvulopalatoplasty (LAUP)

#### Policy update history

Revised 11/96 to exclude coverage for snoring treatment. Updated 3/99 to include coverage for oral appliances for obstructive sleep apnea and to exclude coverage when used to treat snoring for Medicare HMO Blue members, in accordance with HCFA regulations published in DMERC Medicare News, No. 41, issued December 1998. Updated 11/99 to exclude coverage for the Somnoplasty System<sup>SM</sup> for OSA. Updated 3/01 to clarify coverage exclusion for LAUP and radiofrequency volumetric tissue reduction with the Somnoplasty System. Updated 1/05 to clarify non coverage of radiofrequency volumetric tissue reduction and to include references and rationale based on BCBSA National Policy issued 4/04. Reviewed 6/05 and updated based on BCBSA National Policy 7.01.101 issued 4/05. Policy Statement added regarding coverage exclusion for palatal stiffening procedures, effective 6/05, palatal stiffening procedures definition added, references added. Reviewed 7/05 based on BCBSA National policy 7.01.51 issued 4/05 addressing surgical management of obstructive sleep apnea with no change in policy statement. Reviewed 9/06 and updated based on BCBSA national policy 7.01.101 issued 7/06, no change in policy statements, additional references added. Updated 9/07 to clarify that coblation is considered a radiofrequency technique for tissue reduction. Reviewed 2/08 BCBSA national policy 7.01.101 Minimally Invasive Surgery for Snoring, Obstructive Sleep Apnea Syndrome/Upper Airway Resistance Syndrome issued 12/07 without change in coverage exclusions of LAUP, radiofrequency volumetric tissue reduction and palatal stiffening procedures; added rationale and 4 references under footnote 18. Updated 5/08 to clarify coverage exclusion of radiofrequency volumetric tissue reduction of the palatal tissues with coblation technology. Reviewed 2/08 BCBSA national policy 7.01.101 Minimally Invasive Surgery for Snoring, Obstructive Sleep Apnea Syndrome/Upper Airway Resistance Syndrome issued 3/09 without change in coverage exclusions of LAUP, radiofrequency volumetric tissue reduction and palatal stiffening procedures; added all references under footnote 1. New policy, effective 8/1/09.

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##### References for footnote 1:

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#### Footnotes

<sup>1</sup> Based on BCBSA national policy 7.01.101 Minimally Invasive Surgery for Snoring, Obstructive Sleep Apnea Syndrome/Upper Airway Resistance Syndrome, issued 3/09.