# Cohere Medical Policy - Obstructive Sleep Apnea Surgeries (Non-Covered Procedures)

***Clinical Guidelines for Medical Necessity Review***

**Version:** 1
**Effective Date:** February 13, 2025


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## Guideline Information:

**Specialty Area:** Sleep Medicine
**Guideline Name:** Cohere Medical Policy - Obstructive Sleep Apnea Surgeries (Non-Covered Procedures)

**Literature review current through**: 02/12/2025
**Document last updated:** 02/12/2025
**Type:** [**X**] Adult (18+ yo) | [**X**] Pediatric (0-17 yo)


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# Medical Necessity Criteria

***Service: Obstructive Sleep Apnea Surgeries (Non-Covered Procedures)***

## Recommended Clinical Approach

**These services are clinically unproven and not medically necessary.**

Obstructive sleep apnea (OSA) is a condition where multiple episodes of partial or complete closure of the upper airway during sleep may occur. These often frequent episodes may lead to pauses in breathing (apnea or hypopnea) that can last for greater than 10 seconds, and may be followed by awakening or rapid breathing. Both adults and children may be affected by OSA. Diagnostic testing is necessary to determine the presence of OSA. While non-surgical treatments exist (e.g., positive airway pressure [PAP], oral appliance therapy), surgery may be recommended to reduce the risk of hypertension, atrial fibrillation, heart failure, and other serious associated conditions due to lack of oxygen in the bloodstream. While there are several established and clinically proven OSA surgeries available, other OSA surgical technologies are emerging and under investigation.[1-2]

## Medical Necessity Criteria

### Indications

- ➔ The following **obstructive sleep apnea surgeries** are not considered appropriate, as they are clinically unproven and not medically necessary. There is inconclusive evidence of the effectiveness of **ANY** of the following procedures:
  - Tongue base suspension with permanent suture technique[3]; **OR**
  - Submucosal radiofrequency ablation of the tongue base[4-5]; **OR**
  - Uvulectomy as a stand-alone procedure; **OR**
  - Insertion of implants into the soft palate (Pillar procedure)[5-6]; **OR**
  - OSA surgery in the absence of OSA diagnosis (e.g., snoring alone)[4-5]; **OR**
  - Laser-assisted uvulopalatoplasty (LAUP).[5,7-8]


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### Non-Indications

- ➔ **Obstructive sleep apnea surgeries (non-covered procedures)** are not considered appropriate if **ANY** of the following is **TRUE**:
  - ◆ This is not applicable, as there are no indications.

## Level of Care Criteria

None

## Procedure Codes (CPT/HCPCS)

| CPT/HCPCS Code | Code Description |
|---|---|
| 41512 | Tongue base suspension, permanent suture technique |
| 41530 | Submucosal ablation of the tongue base, radiofrequency, 1 or more sites, per session |
| 42140 | Uvulectomy, excision of uvula |
| C9727 | Insertion of implants into the soft palate; minimum of three implants |
| S2080 | Laser-assisted uvulopalatoplasty (LAUP) |


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# Medical Evidence

Aurora et al. (2010) developed practice parameters for surgical modifications of the upper airway for obstructive sleep apnea in adults for the American Academy of Sleep Medicine (AASM). In this systematic review, the group recommended diagnosis of sleep apnea before initiating surgery, and included discussion of procedures such as tracheostomy, maxillo-mandibular advancement (MMA), laser-assisted uvulopalatoplasty (LAUP), uvulopalato-pharyngoplasty (UPPP), radiofrequency ablation (RFA), and palatal implants. UPPP as a sole procedure does not reliably normalize the apnea-hypopnea index (AHI) in moderate to severe OSA syndrome. LAUP was not recommended due to low-quality published evidence. LAUP usually does not normalize the AHI and no support was found in the literature for improvement in secondary outcomes. Additionally, the possibility of OSA symptom worsening exists. Very low quality evidence (case series and only one randomized controlled trial) exists to support the use of radiofrequency ablation, and long-term sequelae of RFA use were not published. The group concluded that there is a lack of rigorous data evaluating outcome measures and which populations would benefit from these surgical treatments. Palatal implants were described as an emerging treatment based on very low quality evidence. The group stated that it is difficult to predict if it will ultimately be found to be a reliably effective treatment option.[5]

Khasawneh et al. (2021) conducted a small study of 30 patients who underwent pillar implants for treatment of snoring and excessive daytime sleepiness. Limitations of the study included, in addition to the small study size, a lack of placebo controls due to the inappropriate nature of sham studies. Follow-up sleep studies were not conducted on all study participants due to cost constraints. Additionally, many of the study participants did not undergo polysomnography, and several participants experienced snoring as their only symptom. Longer term, larger studies were stated to be needed to predict long-term efficacy.[6]

Littner et al. (2001) reviewed the evidence for laser-assisted uvulopalatoplasty (LAUP) as the basis for the development of a practice parameter for the American Academy of Sleep Medicine (AASM). The group stated that


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adequate controlled studies for LAUP were not found in peer-reviewed journals. This agreed with AASM's 1994 practice parameters for LAUP, and the group maintained their non-recommendation for LAUP as a treatment for sleep-related breathing disorders. The parameter does state that LAUP may be comparable to uvulopalatopharyngoplasty (UPPP) for the treatment of snoring.[7]

Camacho and colleagues (2017) published a systematic review and meta-analysis regarding laser-assisted uvulopalatoplasty (LAUP) for obstructive sleep apnea (OSA) treatment involving 717 patients in 23 studies of adult patients. This meta-analysis was based on case series analysis only without controls. The group found a 32% reduction in apnea-hypopnea index (AHI) although the lowest oxygen saturation (LSAT) only minimally changed. The individual data found a success rate of 23%, a cure rate of 8%, and 44% of patients experienced a worsening of AHI. LAUP was recommended by the group to be performed with caution or not at all based on the unfavorable results of the currently published studies.[8]

The American Academy of Otolaryngology-Head and Neck Surgery (AAO-HNS) has published position statements including the following:

- **Tongue suspension** (Published 2012, Updated 2016): The group states that unconvincing results in earlier studies may have been related to poor patient selection. The studies cited by the group appear to have low numbers of participants. The group concluded that tongue-based suspension can potentially be effective when part of a comprehensive approach in the medical and surgical management of symptomatic adult patients with moderate to severe OSA.[9] There is a lack of robust clinical studies to validate the efficacy of this procedure otherwise.
- **Submucosal ablation of the tongue base for OSAS** (Published 2010, Updated 2012): This guideline cited a number of non-randomized studies with low numbers of participants. The group commented that the majority of patients studied were not morbidly obese and experienced mild to moderate OSA. The studies cited that compared ablation with CPAP found similar effectiveness of both therapies.[10]

No current, peer-reviewed studies were found to support the use of uvulectomy as a stand-alone procedure for the treatment of obstructive sleep apnea.


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# Clinical Guideline Revision History/Information

| Original Date: February 13, 2025 | | |
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| **Review History** | | |
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