Obstructive Sleep Apnea (OSA) Diagnosis and Treatment

**What is it?**


Experimental Codes for OSA – C9727, D0322, D0330, D0340, E0445, G0398 - G0400, 0088T, 0089T, 30801, 30802, 33202 – 33249, 42950, 70350, 70355, 76101, 76102, 76536, 78300, 92520, 94760 – 94762, 95806

**Obstructive Sleep Apnea (OSA)** is episodes of stopped breathing during sleep. In normal conditions, the muscles of the upper part of the throat keep this passage open to allow air to flow into the lungs. These muscles usually relax during sleep but the passage remains open enough to permit the flow of air. Some individuals have a narrower passage, and during sleep relaxation of these muscles causes the passage to close and air cannot get into the lungs. Loud snoring and labored breathing occur. When complete blockage of the airway occurs air cannot reach the lungs. For reasons that are unclear, in deep sleep breathing can stop for a period of time (often more than 10 seconds). Periods with lack of breathing, or apneas, are followed by sudden attempts to breathe. These attempts are accompanied by a change to a lighter stage of sleep. During the apneas, the oxygen level in the blood falls. Persistent low levels of oxygen or hypoxia may cause symptoms such as excessive daytime drowsiness. If the condition is severe enough, pulmonary hypertension may develop leading to right sided heart failure.

Symptoms that may be observed include:

- Loud snoring
- Periods of not breathing (apnea)
- Awakening not rested in the morning
- Abnormal daytime sleepiness, including falling asleep at inappropriate times
- Morning headaches
- Limited attention, memory loss or poor judgment
- Personality changes
- Lethargy

Various diagnostic studies and treatment approaches are employed in managing this condition. For some patients by losing weight, avoiding alcohol and/or sedatives or using nasal decongestants may help alleviate symptoms. For children with sleep apnea and related problems evaluation should be made to see whether they need to have their tonsils or adenoids removed which is considered medically appropriate treatment (42820 – 42836).
Diagnosis:

The following diagnostic techniques are considered medically necessary for members with symptoms suggestive of OSA:

1) **Split-night comprehensive sleep study with CPAP titration (SSCT)**
   In constant attendance by a sleep technician and performed in a healthcare facility (95811):
   
   **(NOTE:** SSCT is required to be performed unless during the study the member did not have sufficient: AHI events per hour to initiate CPAP; or, sleep time for evaluation and titration. [*If any one or more of the following occurs and is associated with Obstructive Respiratory events, CPAP should be initiated immediately:
   a. Bradycardia of 40 beats per minute or less; or,
   b. PVC couplets or bigeminy (occurrence of 2 beats of pulse in rapid succession); or,
   c. Sinus bradycardia (arrest) > 2.5 seconds; or,
   d. Oxygen desaturation to 75% or below.*]
   
   Recommended guidelines for split night study include: at least 2 hours for diagnostic portion; and, 3 hours for adequate titration of CPAP. A comprehensive sleep study includes a minimum of 7 parameters – EEG, EOG, chin EMG, ECG or heart rate, airflow, respiratory effort and oxygen saturation).
   
   [*In cases meeting circumstances in NOTE section above whereby:
   a) sleep recording has documented a minimum of 30 qualifying apneas; and,
   b) desaturation average is 4% or more of baseline; or,
   c) arousals occurred within the first 3 hours after lights out.
   
   Either: 1) subsequent sleep study with CPAP titration is approved; or,
   2) trial rental period of 1 – 2 months with auto titration CPAP will be approved.*]

2) **Video-EEG-sleep study (95951)**
   (video monitoring of body positions and extended EEG channels with standard nocturnal polysomnography) attended by a professional in a healthcare facility - only if:
   
   a) to assist with the diagnosis of paroxysmal arousals or other sleep disruptions that are thought to be seizure related; and,
   b) initial clinical evaluation and results of a standard EEG were inconclusive.

The following are considered experimental and investigational for diagnosis of OSA:

Actigraphy (0089T); or,

Bone joint imaging study (78300); or,

Cephalogram, Orthopantogram, Tomographic survey, Panoramic or Cephalometric films (70350, 70355, D0322, D0330, D0340); or,

Complex motion x-rays (76101 – 76102); or,

Laryngeal function study (92520) aerodynamic and acoustic testing; or,
Nocturnal pulse oximetry (94760 - 94762, E0445) (all patients with symptoms suggestive of obstructive sleep apnea require a sleep study regardless of whether the pulse oximetry is positive or negative); or,

Static charge sensitive bed (not proven as valid); or,

Ultrasound of soft tissue (76536); or,

Unattended home and/or portable sleep monitoring studies or systems (95806, G0398 - G0400).

**Treatment:**

The following treatments are considered medically necessary for members with verified OSA subject to qualifications stated:

1) **Continuous Positive Airway Pressure (CPAP) – E0601**

CPAP is a non-invasive technique for providing low levels of air pressure from a flow generator through a nasal mask. The purpose is to prevent collapse of the oropharyngeal walls and the obstruction of airflow during sleep which occurs in OSA.

A trial period of 2 months rental of CPAP is considered medically necessary durable medical equipment when both of the following criteria are met:

a) Sleep study diagnostic portion results show Apnea-Hypopnea Index (AHI) or Respiratory Disturbance Index (RDI):

   i) equal to or greater than 15 events per hour with a minimum of 30 events; or,

   ii) equal to or greater than 5 with less than 15 events per hour but a minimum of 10 events and at least 1 of the following:

      • excessive daytime sleepiness (documented by either Epworth greater than 10 or Multiple Sleep Latency Test less than 6); or,

      • documented symptoms of impaired cognition, mood disorders or insomnia; or,

      • documented hypertension (greater than 140/90); or,

      • documented ischemic heart disease; or,

      • documented history of stroke; or,

      • greater than 20 episodes of oxygen desaturation less than 85% during a full night sleep study; or, any one episode of oxygen desaturation less than 70%.

   and,

b) Results of CPAP titration at optimum pressure shows both:

   AHI less than 5 or for members with AHI greater than 20 – reduction in AHI greater than 75%; and,

   Oxygen desaturation not less than 85%.

**NOTE:** As used herein AHI is average number of episodes of apnea and hypopnea per hour of sleep. Leg movement, snoring, respiratory event related arousals and other sleep
disturbances may be included by some facilities but are not considered part of the AHI calculation. Often AHI and RDI are used interchangeably. AHI and/or RDI relating to this policy include only episodes of apnea and hypopnea per hour of calculation or sleep.

The following accessories are considered medically necessary for members who meet criteria for CPAP with the usual maximum amount for replacement stated:

**Maximum Amount Accessory (ies)**

1 per 1 month - Interface for full face mask (A7031), Oral interface (A7044)

2 per 1 month - Disposable filters (A7038), Cushions and pillows (A7028, A7029, A7032, and A7033)

1 per 3 months - Tubing (A4604, A7037)

1 per 6 months - *Face mask (A7030), Headgear (A7035), Chinstrap (A7036), Oral/nasal mask (A7027), Nasal interface (mask or cannula) (A7034), Non-disposable filters (A7039), water chamber for humidifier (A7046)*

*NOTE: An upgraded mask (such as the Mirage CPAP mask) is considered medically necessary only if there is documentation a standard mask: cannot maintain required pressure; or, is so tight for correct pressure it creates sores.*

Quantities of supplies greater than those shown above as maximum amounts, in the absence of documentation clearly explaining the medical necessity of excess quantities, will be denied as not medically necessary.

Heated or non-heated humidifier (E0562, E0561) are also considered medically necessary rent to purchase items for members meeting criteria for CPAP.

**NOTE:** CPAP rental beyond the trial period is considered medically necessary for members who have demonstrated appropriate therapeutic use and response to the trial use of CPAP. Reports obtained via a compliance monitor check are required in making this determination.

Total payments for a rental item may not exceed its allowable purchase price. Usual terms allow for an additional 8 months rental after the trial period before the item caps with payment of 10 month’s rental.

A reasonable useful lifetime for rent to purchase equipment must be no less than 5 years. If a CPAP has been in continuous use by the member on either a rental or purchase basis: 1) for the equipment’s useful lifetime; or, 2) if the item is lost; or, 3) irreparably damaged, a new CPAP may be requested with documentation submitted for review. Usual lifetime for CPAP is 5 – 10 years.

- CPAP is considered experimental and investigational for treatment of members with:

  - Upper airway resistance syndrome (UARS) – normal AHI but with sleep fragmentation related to subtle airway resistance; or,

  - Epilepsy in order to improve seizure control (345.00 – 345.91, 780.39).

Bilevel positive airway pressure (BiPAP) creates higher inspiratory and lower expiratory pressures and is primarily used in patients with concomitant hypoventilation or central sleep apnea. Auto-titrating CPAP (APAP), also known as Demand Positive Airway Pressure (DPAP), automatically raises and lowers the inspiratory pressure and offers the theoretical advantage of being able to adapt to the variations in pressure requirements that result from changes in sleep stage and body position.
**BiPAP, APAP and DPAP (E0470, E0471)** are considered medically necessary for members who meet criteria for CPAP above but who have: documented intolerance; or, coexisting disorders such as restrictive thoracic disorders, COPD or nocturnal hypoventilation; or, **for APAP only** are trialed after sleep study without CPAP titration.

An oral pressure appliance (OPAP®) is a custom fabricated intra-oral device used with a CPAP or BiPAP in place of a standard nasal mask.

**OPAP®** is considered medically necessary durable medical equipment only on an exception basis for members who are unable to tolerate a standard nasal/face mask due to facial discomfort, sinus pain or claustrophobia from masks.

3) **Oral Appliances (E0485, E0486)**

Oral appliances are custom-fitted and prefabricated devices to reduce upper airway collapsibility. Some oral appliances are custom-fitted by a dental lab while others are prefabricated and adapted by a clinician.

Oral appliances are considered medically necessary for members with OSA who meet the criteria for CPAP stated above.

- Oral appliances to reduce upper airway collapsibility are considered experimental and investigational for all other indications other than OSA.
- Oral appliances for OSA available over-the-counter without a prescription are not considered medically necessary as they have not been shown as effective in the treatment of OSA.
- Dental services (dentures, bridgework, etc.) as treatment for OSA even if medically necessary are not considered under most medical health benefit plans and are considered dental in nature.

3) **Uvullectomy and Laser Assisted Uvuloplasty (LAUP) (42140, 42160, 42890, S2080)**

Uvullectomy and LAUP are considered medically necessary only upon individual case review for members with:

a) severe OSA; and,
b) other medical conditions that make them unable to undergo UPPP; and,
c) failed trial of CPAP or the use of an oral appliance or device.

Uvullectomy is also considered medically necessary as emergent treatment for acute edema of the uvula causing acute respiratory distress.

- Uvullectomy and LAUP are considered experimental and investigational for OSA other than in cases meeting above criteria and additional medical review as they have not been shown as effective as UPPP (see below) for this indication, or as a treatment for recurrent throat infections and for all other indications.
4) **Uvulopalatopharyngoplasty (UPPP) – (42145)**

UPPP is a surgical method to treat OSA by enlarging the oropharynx. UPPP is considered **medically necessary** for members with documented OSA, who meet the **all** of the following criteria, member:

a) has met criteria for CPAP shown above; **and**,  
b) responded adequately to trial of CPAP; **and**,  
c) is intolerant to CPAP (medical records must document member has attempted CPAP before considering surgery).

- UPPP is considered **experimental and investigational** if CPAP was unsuccessful in relieving a member’s symptoms. This surgical approach has not been shown to be effective in non-obstructive apnea.

5) **Orthognathic Surgery (21198 - 21208)**

Jaw realignment surgery or Orthognathic surgery is considered **medically necessary** for persons who fail **all** other treatment approaches for OSA and meet the criteria stated in #01039.

**NOTE:** Members having jaw realignment surgery usually undergo orthodontic therapy to correct changes in occlusion associated with the surgery. Orthodontics (such as placement of orthodontic brackets and wires) is **considered dental and not covered** under most medical health benefit plans regardless of medical necessity.

- The following are considered **experimental and investigational** for treatment of OSA:
  
  Somnoplasty and Coblation (0088T, 30801, 30802); **or,**
  
  The Repose System – minimally invasive technique involving tongue base suspension; **or,**
  
  Cardiac Atrial Pacing (33202 – 33249); **or,**
  
  Injection Snoreplasty – use of a sclerosing agent injected into the soft palate; **or,**
  
  Cautery-Assisted Palatal Stiffening (42950); **or,**
  
  Pillar™ Palatal Implant System (C9727).

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