

Non-PAP Options for the Treatment of Sleep Apnea

While CPAP is often the most popular option, other very viable options effectively treat sleep apnea.

For patients with sleep apnea, the airway is floppy and can collapse when you are sleeping. This causes the oxygen levels to fall and the carbon dioxide levels to rise. This can cause your brain to wake up briefly in order to open up the airway and normalize those levels. Once you fall asleep again, the cycle continues. This can lead to poor sleep (from the awakenings) and high blood pressure or stroke (from the low oxygen levels and the adrenaline surge that happens when you wake up repeatedly).

The overall objective is to find a treatment option that is effective and well-tolerated. This involves having an open discussion with your sleep health care practitioner about any concerns you may have about treatment options. We understand that everyone is different.

Oral Appliance Therapy: an oral appliance is custom-fit by a sleep dentist. The idea is to bring the jaw forward over time to open up the airway. This helps to prevent the repeated airway collapse of sleep apnea and can result in more restful sleep. Rather than splinting the airway open with pressurized air (like CPAP), it makes your upper airway larger and less prone to collapse. This is a very reasonable and effective method of treating mild-to-moderate sleep apnea and is an excellent choice for those who are active and travel frequently.

Positional Therapy: For many people, snoring and sleep apnea are much worse when they are on their backs. Some people only have sleep apnea in the supine (on your back) position. This is called positional sleep apnea. One treatment option is to avoid sleeping on your back. This can be accomplished using a snore shirt, a t-shirt with a tennis ball sewn into it, or a positioning device. Traditionally, these cause you to awaken when you are on your back and make you roll over. This can result in fragmented sleep. There is a newer device called the NightBalance Lunoa. This is a slim pouch that is worn across your chest. It contains a small (credit-card sized) device which will gently vibrate when you are on your back. This isn't enough to wake you from sleep but is enough to make you roll over onto your side. This has been studied and compared to CPAP therapy. They found that this was effective treatment for positional sleep apnea. This also has the ability to monitor your progress – it takes a few days to learn your habits and then keeps track of how often it needs to remind you to roll over. It measures snoring as well as your body position and generates a report that you can review with your physician. This is a device that requires a prescription. While it is not covered by insurance, it does have a code that will allow you to use your HSA or flexible spending account.

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Nasal EPAP device: This is a one-way valve that opens when you inhale and closes when you exhale. This traps air in the airway to keep the airway open. There are at least two devices that utilize this technology. One is Provent – this is an adhesive, disposable valve. There are a number of studies on this device showing that it is an effective way to treat sleep apnea. Unfortunately, this is no longer available. BongoRX uses the same type of valve but it is attached to a nasal dilator. This allows for more air when you inhale but the valve still closes when you exhale in order to treat the sleep apnea by propping the airway open. It can feel difficult to exhale but most people are able to get used to this feeling. These are meant to treat mild-to-moderate obstructive sleep apnea and require a prescription. If you would like to use either of these options long-term, a follow up sleep study is recommended to make sure your sleep apnea is well-treated with these options.

Weight loss: all of these devices are treatment, not cure. Weight reduction can be an effective way to eliminate sleep apnea. We know that even a 10-20% weight loss can significantly improve sleep apnea. There is also data showing that people who are more physically fit have a lower risk of OSA, even if they are obese. The airway becomes larger as people lose weight – there is less tissue compressing the airway from the outside. There are newer medications available that are promising for weight reduction.

Hypoglossal Nerve Stimulation: this is an implantable device that treats OSA. It consists of a small generator that is placed under the skin on the chest wall and senses when you breathe. There is a wire that feeds into the nerve that stimulates your tongue. It opens up the airway as you sleep. It is operated by a remote control. Once you turn it on, it will move your tongue

out once to let you know it has been activated. It will then allow you 20-30 minutes to fall asleep naturally before turning on to take care of your sleep apnea all night. It isn't meant for everyone. Before having this device implanted, an ear, nose and throat surgeon will take a look in your airway. They give you medicine to allow you to sleep. They look at your airway to see why you have sleep apnea – is it because your tongue flops backwards OR is it because your whole airway narrows? If it is because your tongue flops backwards, you may be a good candidate for this device. This will also depend upon the severity and type of sleep apnea you have. Your local sleep specialist can help you decide if this is a good option for you.

SURGERY

UP3: Uvulopalatopharyngoplasty -this is a procedure that opens up the back of your throat. It removes or shortens the uvula (the dangly thing at the back of your throat) and removes any extra tissue you may have (including tonsils) that might cause snoring and sleep apnea. It is best for people who snore or who have mild sleep apnea with a large uvula or large tonsils.

MMA: Maxomandibular Advancement- this is a procedure that pulls the jaw forward. It is very effective for sleep apnea but is a significant procedure. Your jawline changes and is usually more prominent. Many patients prefer this look. Some patients will require dental braces to shift their teeth before the procedure so that when the jaw is advanced, the teeth line up. It is a very effective way to treat OSA.

Gastric Bypass: This procedure, or other weight loss surgeries, can help to treat sleep apnea by causing significant weight reduction.

As you can see, there are plenty of options available to treat obstructive sleep apnea that don't involve wearing a mask at night. Our goal is to first see if you have sleep apnea, then partner with you to find a treatment solution that works for you and your lifestyle.