

## Other Therapies for Sleep Apnea

Treatment is needed for obstructive sleep apnea (OSA) because untreated OSA can result in serious health problems. Continuous positive airway pressure (CPAP) therapy is the most common treatment used for obstructive sleep apnea (OSA). (see ATS Patient Series <http://patients.thoracic.org/wp-content/uploads/2014/03/obstructive-sleep-apnea.pdf>) For those who cannot use CPAP or want to try another option, there are other therapies that can work for people with OSA.



For many people with moderate to severe OSA, CPAP is the main treatment. CPAP improves the symptoms of OSA like sleepiness, poor concentration, lack of energy and may improve blood pressure and other heart related problems. However, some people find it difficult to use CPAP, so other therapies may be prescribed. These same therapies are often the treatment of choice for those with mild OSA

### What are non-CPAP therapies for sleep apnea?

While CPAP therapy is often the preferred treatment, some patients will not or are not able to use this device. Other treatments that may help improve breathing during sleep and reduce the risk of complications from OSA include; oral appliances, weight loss, positional therapy, surgery, nasal expiratory resistance and oral negative pressure devices. There are currently no medications that are recommended or approved for the treatment of OSA.

### What are oral appliances?

There are a number of different oral appliances used for OSA. These include tongue retaining devices and mandibular advance devices. The purpose of an oral appliance is to keep your airway open while you sleep, by positioning your lower jaw forward. This prevents blockage of your airway when your tongue relaxes during sleep. You may need a sleep study with the device in place to check that your OSA is completely controlled. Some of the devices appear to be as good as CPAP in improving breathing during sleep and preventing daytime symptoms in people with OSA. The devices do not work in everyone. There may be one device that works better for you than others. (see also ATS Patient Series [http://patients.thoracic.org/wp-content/uploads/2014/03/Oral\\_Appliances\\_for\\_Sleep\\_Apnea.pdf](http://patients.thoracic.org/wp-content/uploads/2014/03/Oral_Appliances_for_Sleep_Apnea.pdf)).

### How does weight loss work to help OSA?

Your health care provider will discuss if weight loss might help improve your sleep apnea. Obesity is one of the major risks for OSA. Losing overall body weight can improve sleep apnea, but it may not get rid of sleep apnea completely. There are other health benefits to consider as well from having a normal weight and body mass index. Safe weight loss also takes time, so you may decide to use weight loss along with other therapies. You may need a follow up sleep study to show that your weight loss has improved your OSA.

### How does positional therapy work?

How your sleeping position affects your breathing can be evaluated with a sleep study. Some people only have OSA when they sleep on their back. For others, OSA may be much *worse* when they sleep on their back. In these cases, trying to get a person to only sleep on his or her side can be a useful treatment. This can be done in several ways. One way is the “tennis ball technique” where a tennis ball is placed over the middle of the person’s back either in a pocket sewn into a T-shirt or a cloth belt. This works by making it uncomfortable for the person to lie on their back during sleep. Pillows supporting the back are usually not as good an option. They do not provide enough support or are easily tossed on the floor during sleep. There are also more “formal” devices available that have been developed for this purpose that can be purchased.

For some people, the OSA and snoring go away completely when they sleep on their sides but as with all treatments, not everyone gets the same benefit from positional therapy. Some people are not able to stay in these positions each night for long periods because of other conditions which make

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it uncomfortable such as arthritis or hip pain. You can talk with your health care provider about how well positional therapy works for you. You might need a sleep study to check that positional therapy is working well.

## What kind of surgery can I have for OSA?

Surgery is not frequently used to treat OSA in adults because it doesn't work very well for most adults. However, in some cases upper airway or throat surgery may be helpful to improve airflow into your windpipe. For example, if you have large tonsils or adenoids, it may help to take them out as they can block air flow in the nose and throat. This is more commonly done in children with OSA than adults. If you have any nasal blockage, an operation may help clear the blockage in your nasal passages. Other surgical approaches may be helpful in rare cases. Your health care provider can discuss if surgery may help you. You might need a sleep study 8-12 weeks after surgery to check to see that your OSA is improved.

## What are nasal expiratory resistance and oral negative pressure devices?

Other devices have recently been developed for patients with OSA. Nasal expiratory resistive devices (such as brand Provent®) are disposable adhesive devices placed over the nostrils. This device makes it difficult for you to exhale fully when you are sleeping. This results in air staying in your airway and keeping your airway open. Studies show that this treatment can improve OSA, although the best results are usually seen in people with milder (less severe) disease. These devices may not work as well in more severe disease and are difficult to use for people who are mouth breathers. Some people find them difficult to use over a long period.

Another therapy recently introduced is a device placed in your mouth, connected to a machine called an oral negative pressure device (such as brand Winx®). This device works by causing negative pressure in the mouth area. This keeps your tongue and soft palate at the front of your mouth so they don't relax and block your airway. Studies over a short time have shown this device to be helpful for some people however they have not been tested over a long period. Like other treatments, you might need a sleep study to check that the device is working well.

## How can I get these therapies?

Your health care provider can refer you to a sleep specialist. The sleep specialist will evaluate if any of these approaches will be useful in treating your sleep problem. They will usually begin by finding out how bad your sleep apnea is by doing an overnight sleep study. After

the sleep study, you will have a follow up appointment with your sleep specialist to talk about the results of the sleep study and to discuss possible treatment options. (For information on having a sleep study, see the ATS Information Series <http://patients.thoracic.org/wp-content/uploads/2014/03/sleep-studies.pdf>).

## How do I know if my therapy is working?

When a therapy is working well, you should have little or no snoring. Snoring should not wake you up. You may notice you sleep more restfully. You may see improvement in daytime sleepiness and fatigue. A good way to find out if you are getting full control of your OSA is to have a repeat overnight sleep study with the device in place, after weight loss or the surgical procedure. If symptoms of snoring or sleep apnea return (for example, your tiredness returns during the day), it is important to have a follow up appointment with your health care provider or sleep specialist. Sometimes a therapy may seem to work at first but does not continue working over time. You should always pay attention to your sleep quality and watch for symptoms.

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## Rx Action Steps

Other therapies besides CPAP are available for sleep apnea and may be helpful in treating OSA in some people.

- ✓ Speak with a sleep specialist or your health care provider to find out if any of these therapies may help you
- ✓ If you are obese or overweight, consider a safe weight loss program even if you are using other therapies.
- ✓ If you still have symptoms despite using the therapy, see your sleep specialist.
- ✓ Keep follow-up appointments and discuss if and when you need a repeat sleep study.

**Doctor's Office Telephone:**

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For more information, visit the following websites:

### WebMD

<http://www.webmd.com/sleep-disorders/sleep-apnea/tc/sleep-apnea-oral-devices-topic-overview>