OVERCOMING SNORING AND SLEEP APNEA WITH ORAL APPLIANCE THERAPY



A Restful Night's Sleep Mystery: Unmasked, Untangled Unhooked

A guide to understanding sleep, snoring, sleep apnea and how it can be treated.

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Sleep-As Critical to Life as Breathing.

It matters and only you can prioritize it!

Understanding Why Your Body Needs Sleep

Nowadays we cannot pick up a magazine or a newspaper, browse online, go to social events or look at ads or apps without hearing about how to get some shuteye. Yet, the more obsessed we are about it, the more it eludes us. This book is written to bring enlightenment to the hype surrounding sleep, snoring, sleep apnea and treatment choices.

We spend approximately1/3rd of our life asleep, so nature must have some reason for that. We forget that sleep is a basic human need, fundamental to our health and well-being, just like air, water and food.

However, sleep does not get much respect. The prevailing impression is that sleep is lazy and unproductive, usually lost/dead time or a passive activity, but in reality it is the most active state for your brain and body.

Sleep is a reboot for our bodies. When we sleep, our body goes through a healing process- it repairs, refreshes and restarts itself. Science has proven that the body needs sleep for a variety of reasons. It is necessary for the optimal performance of cognitive functions like memory, thinking and learning, for physiological functioning such as the cardiovascular, metabolic and immune systems as well as for emotional well-being. Sleep is when the brain

goes in housekeeping mode- the metabolic bi-products that are a side effect of the periods when you are awake, get cleaned up when you are catching up on your zzz's.

When we sleep, we cycle through four stages. Stages 1,2 and 3 are called NREM and Stage 4 is REM, the period of deep sleep. This cycle is repeated 4-5 times a night, each taking approximately 90-120 minutes on average. Getting shuteye for right amount of time enhances the quality of every moment we spend with our eyes open. **According to National Sleep Foundation- adults on an average need 7 hrs of quality sleep**. People who do not get enough sleep find themselves fighting a variety of health problems.

Here are a few things that good sleep does for you:

- Improves and revitalizes memory. Gives the brain a chance to reorganize data and process newly learned information. That is why many people report that after taking a nap during the day, they are able to be more productive for the rest of the day.
- Helps fight Dementia and Alzheimer's. Promotes brain health and gives it the opportunity to make certain neuronal connections.
- Helps our immune system get stronger.
- Slows your energy consumption and lowers the stress on your cardiovascular system. Sleep can lower your blood pressure and heart rate by 20 to 30 percent.
- Helps to replace chemicals the body needs to function and repair muscles.

- Helps fight weight gain with hunger hormone balancing.
- Helps fight anxiety, depression and fatigue.

Snoring is Nature's Alarm Bell

Your body is telling you something is wrong with your breathing!



Your Loud Snoring Could be A Sign of a Serious Condition Called Sleep Apnea

Snoring at a physiological level is the unpleasant sounds created by the vibration of your soft palate (back top portion of mouth) due to obstructed air movement during breathing while sleeping. The loud sound you hear is due to turbulence- caused by the same amount of air you always breathe being forced through a narrower space like a straw or stirrer rather than a wide hosepipe.

Snoring is the thunder (warning) before the storm (Apnea) which kills. It is an alarm bell that nature gave us to tell us that something is wrong with our breathing.

Do we hear it? Sure!

Do we try to figure out what it means? Probably not, but we definitely have learned to live with it.

Loud chronic snoring is not harmless; it could be a symptom of a serious, even life-threatening condition known as **Obstructive Sleep Apnea (OSA)**.

Snoring is no joking matter, with patients often coming in for treatment simply to appease their annoyed spouse. Heavy snoring is a risk factor for carotid (neck) artery fatty deposits which may progress into a stroke.

"Think of snoring as the fire alarm and Sleep Apnea as the fire." The analogies are endless. Nevertheless, if a fire alarm goes off and someone simply disconnects it or ignores it, it does not mean they put out the actual fire.

Sleep Apnea- Not so Silent Killer.

There has been a lot in the news about Sleep Apnea and its harmful effects. We hear of athletes, newscasters, and of course, the common everyday person having it. However, the scary fact is that **80%-85%percent of those who suffer with Sleep Apnea are undiagnosed!**

You are probably saying "wow!" right about now. Many of those suffering with Sleep Apnea do not know it - they only seek out help if their partner cannot sleep. Instead, they are going to the doctor for things like high blood pressure, weight gain, and tiredness. Then, when they cannot seem to figure out why these problems are not successfully being regulated or managed, they get frustrated. It could be because **the true underlying problem and cause is Sleep Apnea and the rest are just symptoms.**



So, What Is Sleep Apnea?

Sleep Apnea, a disorder that affects about 22 million Americans, is characterized by **breath pauses during sleep, which may last for 10 seconds** or more. Sleep Apnea **episodes usually happen five to 100 times in an hour** and may cause sleep disturbances. Snorting, choking, and snoring are typical to people with Sleep Apnea. It is common to all- children, men and women- there are no age or gender restrictions.

Because of the nature of the condition, people with Sleep Apnea are normally not aware of their sleeping irregularities. **In fact, it is said that 80 to 85% of people with Sleep Apnea are undiagnosed**. Sleep Apnea sufferers never get the benefits of deepest stages of sleep, which is what reverses the aging process and repairs tissue damage.

Types of Sleep Apnea

There are two main types of Sleep Apnea.

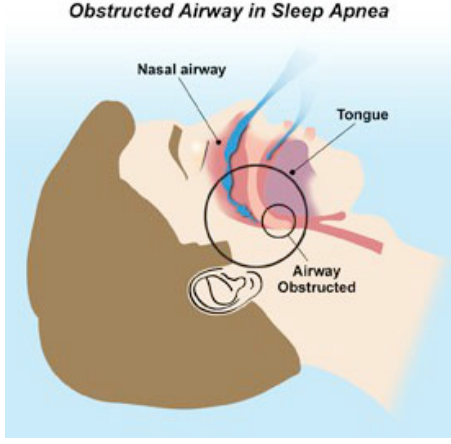
1. Obstructive Sleep Apnea:

The most common type is called **Obstructive Sleep Apnea (OSA) which involves a blocked airway**. This blockage can result from over-relaxed throat muscles, the tongue falling back, obesity, and/or facial or bone structure deformities. Once the airway is blocked, air cannot enter the lungs, and breathing stops. During this time, the person's oxygen level decreases, while carbon dioxide

level increases. This leads to sort of a “911” call to the brain to wake the person up and the person does so with a loud snore, gasp or snort. This then stimulates the brain to normalize the breathing process and prompts the person to wake up and to open the airway by adjusting the tongue and throat muscles.

In this nighttime battle between sleep and survival, nature keeps you alive and breathing so you do not die in your sleep but the quality of your sleep gets compromised in the process. This nightly disruption puts extraordinary wear and tear on the body with the emotional tolls of going into fight or flight mode several times each night.

The person, however, may not even remember being awake for a short time nor be aware of their gasps for air.



2. Central Sleep Apnea:

The other type of Sleep Apnea is called **Central Sleep Apnea, which is caused by the brain's delayed signals to the breathing muscles**. Breathing stops and oxygen level begins to drop. Unlike Obstructive Sleep Apnea, Central Sleep Apnea is less common. It is a central nervous system disorder and can result from an injury or disease that involves the brainstem. This can be in the form of stroke or brain tumor, among other things. Though people with central Sleep Apnea may not typically snore, they may experience shortness of breath.

Both types of Sleep Apnea have different causes, but their **effects are the same: low levels of oxygen in the brain, poor sleep, excessive daytime sleepiness, fatigue, and even depression**. They can also contribute to high blood pressure and heart irregularities when the oxygen reaches a dangerously low level.

Key Points about Sleep Apnea

Loud chronic snoring isn't normal- or we all would be doing it.
Sleep Apnea is a chronic, ongoing, downward spiraling disease.

Enemy #1 of the Sleep Apnea disease is the lack of awareness. It is one of the most **under diagnosed** and **under treated** diseases in today's age.

25% of men and 9% of women in their middle-ages (30-49) suffer from OSA. Additionally, 43% of men and 27% of women aged 50-70 are estimated to have OSA.

THE **PREVALENCE** of **CHILDHOOD OSA** is 3% in non-snoring children and as high as 10 to 20% in those that have habitual snoring.

If you have Sleep Apnea, then your spouse does too.We are not talking about actually physically having it but rather, **they suffer along with you, especially if you snore**. Snoring is the most common sign of Sleep Apnea and your spouse will be the first to notice.

Bed partners of snorers and OSA patients lose 62 minutes of sleep per night on average due to their partner's condition. So, when you got married and took the vows to be with each other in sickness and in health, you meant it not intending but rather dragging your partner into this too.

Marriage counselors and pastors list snoring, behind money issues, as the second most contentious issue

among couples. Preventing your spouse from getting a good night's sleep and waking up tired day after day can cause even the best relationships to go downhill. **Not to mention the mood swings and bad temper some Sleep Apnea sufferers have**.

Sleep Apnea disrupts sleep and leads to:

Night time symptoms of loud snoring, choking and gasping, clenching and grinding teeth, stop breathing while sleeping, awaken frequently, wake up several times to use the bathroom.

Daytime Symptoms: Not waking up refreshed, excessive daytime sleepiness, mood swings, daytime tiredness and fatigue, morning headaches, memory fog and memory problems, sleepy at wheels, meetings, church services, movies.

Sleep Apnea At-Risk Checklist: You are at **high risk** of sleep apnea if you are **overweight** or **obese, neck size>17 for men and >16 for women, have high blood pressure, diabetes, heart disease, atrial fibrillation, congestive heart failure.**

Sleep Apnea sufferers never get the benefits of the deepest stages of sleep, which helps in healing the body, balancing hormones etc. After just one night lacking the deep sleep that the body needs and craves, one awakes in a damaged state.

Cumulative damage eventually could lead to high blood pressure, heart disease, diabetes, depression, mood disorders, weight gain, Dementia, Alzheimer's, suppression of the immune system, cancer and even death if left untreated.

AIRWAY IS KING!

KEY POINT: The human body is amazing at compensating to make sure number one priority of survival air is made available no matter what the cost until it can no longer pay the price.

The reason this sleep disorder is under and undiagnosed is because **doctors are not able to detect the problem during routine clinic visits**. No form of blood, urine, or stool test could point out presence of the problem. **It is recommended to be proactive about bringing the potential problem to your doctor's attention** if you have any of the above symptoms.

If you have Sleep Apnea, you are:

7x more likely to have motor vehicle accident,
4x as likely to have a heart attack,
4x more likely to have a stroke,
3x more likely to have diabetes, and
2x as likely to die in your sleep.

Sleep Apnea is a dangerous disease. It can lead to other diseases if it is not treated and controlled. If you are diagnosed with the condition, it would be wise to be treated for your own sake as well as others'.

Available treatment options could help improve your overall health and quality of sleep. The basic options available to treat Sleep Apnea are mouthpieces, breathing devices, lifestyle adjustments, and surgical operations. **You always have the freedom to choose which treatment option to take based on your comfort, budget, and preference.**

Do You Think You Might Have It?



Answer a few of these questions:

1. Do you snore loudly (loud enough to be heard through closed doors or that your bed partner elbows you for snoring at night)?
2. Do you often feel tired, fatigued or sleepy during the daytime (such as falling asleep during driving, watching TV, in meetings or while talking to someone)?
3. Has anyone observed you stop breathing or choking/gasping during your sleep?
4. Are you being treated for high blood pressure, heart disease, diabetes or depression and are you on medication?
5. Are you more than 50 years old?
6. Is your neck size larger than 17 inches?
7. Are you a male?
8. Do you find yourself having mood swings?

It is rather hard for a person to know whether they have Sleep Apnea, since the condition manifests only during sleep. However, if you suspect you may have the condition, especially if you answer yes to one or more of the above questions, you may be at high risk.

The best and most absolute way of diagnosing Sleep Apnea is having a Sleep Study done. These can be done in sleep center with a sleep doctor or you can even get an in-home test which many prefer.

Treatment Options



Option 1: CPAP Therapy for Treating Sleep Apnea

The **most common breathing device used for Sleep Apnea treatment is CPAP or Continuous Positive Airway Pressure**. This device has been the gold standard for years and is mostly recommended for people who are suffering from moderate or severe Sleep Apnea. **The device uses a special mask that is customized to fit over a person's nose and mouth**.

It works by gently blowing air into the throat, aiding the entry and passage of air into the airways. Through this action, air is pressed against the airway wall. At the same time, air pressure is also set so it would be just enough to stop and prevent blockages and narrowing of airways during sleep.

In simple words- the CPAP is a vacuum cleaner blowing air in the opposite direction or a leaf blower with adjustable air pressure.

People who suffer with Sleep Apnea are faced with a lot of physical and emotional challenges. Some are overwhelmed with health issues that they just cannot seem to get control of. They put on weight and have to deal with people criticizing them for being overweight and assuming that it is because they eat too much. They then find out they have Sleep Apnea and they are prescribed CPAP therapy.

Thinking that it is a quick fix and everything is going to be all better now, they try to wear it for a week or so but soon become frustrated with the hoses, the noise and the feeling of being closed in to the point they take the machine and throw it in the closet or under the bed. Their Sleep Apnea continues to go untreated and they fall right back into a vicious cycle of health problems and getting no rest.



People who are prescribed CPAP usually are turned off by several components.

- **Complexity**. Because CPAP could be complex equipment, there is a need to call a **technician to setup, install, and adjust the equipment into the mouth or nose**. The technician would need to make specific adjustments based on the orders of the doctor. After an initial setup session, you may still need to call back the technician so that the device could be appropriately adjusted for best results.
- **Side Effects**. Another setback is the possible side effects of using CPAP. Such unlikely effects include **stuffing or drying of the nose, onset of sore eyes, irritation of facial skin, and headaches**. If the device is not properly setup, installed, or adjusted, it could cause **stomach bloating** and unnecessary discomfort. If any of the side effects appear, it is best if the CPAP user would approach a specialist, a nursing staff, or a CPAP technician. Side effects could be reduced or eliminated upon the correction of any error. As for stuffy and runny nose, nasal sprays may provide instant and more effective relief.
- **Distractions**. Further, most people just don't like **the noise, the hoses, and the weighted feeling around their neck** from the CPAP machine.

The most important thing to remember is that **Sleep Apnea problems could return when use of CPAP is stopped or when it used incorrectly**. To date, there are several types of CPAP masks and machines available in the market. It would be best if you would **approach your**

doctor and tell them your concerns or desire to pursue other options.

Other treatment options for Sleep Apnea could be more comfortable for you. Fear not! There is **another option** called **Oral Appliance Therapy.**



Option 2: Oral Appliance Therapy

Oral Appliance Therapy is**a custom made device that is fitted to your mouth and it repositions your jaw slightly forward in order to open your airway and keep it stable and stop it from falling back tolet the air through**. As we explained above, most **OSA** is caused by an obstruction in the airway which is typically the tongue or soft palate falling back and obstructing air flow.

Oral Appliance Therapy is simple, comfortable and cost effective. Best of all- there are **no hoses, electricity, noise or condensation** to deal with. It is true **freedom device** for stopping snoring and treating Sleep Apnea.

This is not to be confused with the “boil and bites” you see advertised on television or in a local drug store similar to sporting mouth guards. This is absolutely not the same. The kind you see on some television ads are not

nearly as effective and are not adjustable like the oral appliance administered by a dental sleep physician.

Many patients report getting the best rest they have had in years and many say they have dreamed for the first time in a long time after receiving Oral Appliance Therapy.

That's it…Oral Appliance Therapy is just that -**simple and effective**.

Frequently Asked Questions about Oral Appliances:

What is Oral Appliance Therapy?
An oral appliance is a small, custom-fitted device which is worn in the mouth during sleep to prevent the tongue and throat tissues from closing the airway during sleep. Some appliances hold the lower jaw forward during sleep while others have direct effect on tongue position. Oral appliances relieve snoring and treat OSA by realigning the jaw and/or tongue in forward position.

How does Oral Appliance Therapy work?
The oral device moves the tongue and soft palate forward to stabilize them. It also reopens the closed airway by increasing size of the airway behind the soft palate and tongue.

How do I know if Oral Appliance Therapy will work for me?
It works for most patients. If not alone, then in combination with a CPAP. After a comprehensive examination and review of your sleep study, a Sleep Apnea doctor will determine if you are a candidate for an oral appliance, CPAP or combination. Once the appliance is custom made for your mouth, it will be slowly adjusted to maximize results. Success may come in as little as one night or slowly after several adjustments to reach a healthy outcome. Once you start to feel better, true success of any of these treatments can only be measured

with a follow up sleep study. **With Oral Appliance Therapy, the follow up sleep study is done while wearing the appliance**. No medical treatment including CPAP, surgery, or Oral Appliance Therapy can guarantee that your apnea will be eliminated. The only way to treat apnea is to try one of these treatments.

Does Oral Appliance Therapy Work?
YES! Oral appliances work better due to better compliance than CPAP. According to the literature, Oral Appliance Therapy (OAT) is 84.0% effective in treatment of non-severe Obstructive Sleep Apnea cases and 69.2% effective for severe cases. Sometimes combination with CPAP is needed for severe patients**. In any case, oral appliance treatment is better than no treatment.**

Is Oral Appliance Therapy Comfortable?
Yes. Studies have revealed that oral appliances are very comfortable for Obstructive Sleep Apnea patients. In fact, many patients prefer oral appliances to CPAP therapy and use it for longer hours each night. For most patients, this means feeling better throughout the day, as well as improved health outcomes in the long run.

How much does Oral Appliance Therapy Cost?
Total cost ranges from $3K- 6K for a device that lasts for 3-5 yrs. This is equivalent to the cost of a CPAP with its recurring supply cost for the same time frame.

Does Insurance Cover Oral Appliance Therapy?
Yes. Most medical (not dental) insurance plans cover Oral Appliance Therapy for Obstructive Sleep Apnea because it can remedy a medical condition with serious consequences if left untreated. How much insurance covers will depend on each person's medical policy coverage.

How long does Oral Appliance Therapy treatment take?
The treatment time is normally 3-6 months, except in severe cases when it may take a year or more for best results. The usual number of appointments needed are 5-6 visits set 3-4 weeks apart.

How long does the Oral Appliance device last?
On an average, devices last for 3-5 years. However, depending on individual habits such as- teeth grinding, jaw muscle activity, how careful you are when the Oral Appliance is out of your mouth- we estimate 3 years as an average length of service.

What are the side effects of the treatment?
The three primary side effects are tooth discomfort, TMJ (jaw joint) or muscular discomfort, and tooth movement or bite changes. Other minor complications are possible such as salivation changes and dry lips. As with any medical treatment, there are possible complications or side effects to dental sleep therapy. Considering the well-documented health risks of leaving Obstructive Sleep Apnea (OSA) untreated, most of the side effects of using oral devices/therapy are considered minor. However, most patient's side effects will subside after the first week or two.

How long will I need to be in therapy?
Lifetime. Obstructive Sleep Apnea is a treatable but not curable disease for life. Similar to how diabetes or high blood pressure are controlled with medication, Sleep Apnea is controlled with oral device therapy. There is no cure for Sleep Apnea, only treatment options to control the disease.

Do the over-the-counter device or one on internet do the same?

Why not just buy an oral sleep appliance over the Internet?
To most effectively treat snoring and/or Obstructive Sleep Apnea, a diagnosis is needed from a Physician trained in sleep medicine. Once the decision to treat with an oral device is made, the trained dental sleep physician can fabricate a custom-fit sleep appliance specifically for you. This offers unmatched comfort, stability and effectiveness. In addition, oral appliances need to be adjusted periodically in order to meet your current needs. Buying a one-size-fits-all plastic guard is not comfortable, causes side effects that are not monitored and may not provide a therapeutic result. Sleep disorders will continue to cause disrupted sleep if you try to self-solve the problem with an over the counter device. Boil and bite devices are not recommended by medical professionals to treat the serious life-threatening disease of Sleep Apnea.

What's Your Next Step?

..If You've Been Diagnosed

If you have been diagnosed, then **call Sleep Better Maryland at 410-531-5639 or look online for www.SleepBetterMaryland.com.**Makean appointment and if a Sleep Study has been done, be sure to bring that study with you in order for them to fully understand how severe your Sleep Apnea is.

If it has been a while since you had a sleep study, they may recommend you having a current one done in order to be able to treat your Sleep Apnea in the most optimal way possible.

…If You Haven't Been Diagnosed, But Think You Might Have Sleep Apnea

If you think you might have Sleep Apnea, let us just go over a few signs and symptoms one more time:

- Loud or chronic snoring
- Choking, snorting or gasping for breath during sleep
- Long pauses in your breathing
- Daytime sleepiness no matter how much time you spend in bed
- You wake up with a dry mouth or a sore throat
- Have morning headaches
- Restless or fitful sleep
- Insomnia or nighttime awakenings
- Frequently going to the bathroom during the night

- Waking up and feeling out of breath
- Forgetfulness and not being able to concentrate
- Moodiness, irritability, depression, changes in temperament

If you are experiencing some or all of these, you could have Sleep Apnea. **Your first step is to get a sleep study to determine just how severe your Sleep Apnea may be**.

Don't hesitate to take action. Sleep Apnea shouldn't be taken lightly.

Treat yourself to: Restful Sleep- Refreshed and Rejuvenated!

Daytime alertness- Focused and Productive!

Improved health- Enjoying life at its best with health!



Have you found this informative? Call us for consultation.

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You will not regret taking that step.

Disclaimer…This book is not intended to replace the medical advice of a doctor or a certified sleep dentist. **If you think you have Sleep Apnea, contact a physician for help**.