

SLEEP APNEA AND SLEEP SOLUTIONS

PARTICIPATES GUIDE

2018 Oregon FCE State Conference

Prepared by Kay Gooding and Dawn Westphal

Sleep is essential to our health and wellbeing. During sleep, our bodies heal, rest, repair, de-stress and bolster our immune systems. Your brain sorts and files your thoughts and experiences from the past day, giving us a fresh perspective that enables us to problem solve. Sleep helps us keep our emotions on a level plane and allows us to deal with stressful situations. And Beauty sleep is Real! The level of stress hormones (cortisol) is lowered and the natural moisture barrier is strengthened. A study showed that women who didn't get enough quality sleep had more signs of aging (lines and spots) and slower sun damage recovery than those with good sleep.

What can we do to achieve better sleep? Here are some suggestions.

1. In the bedroom

- Remove clutter. In a study, the brain recognized a cluttered space and was unable to sleep peacefully.
- Keep only 3 items on a night stand, such as a book, a lamp and flowers.
- The color of your bedroom can affect the quality of your sleep. Soft blue, gray or green are soothing muted color suggestions.

- Remove all electronics, TV, cell phones, computers and game machines from the room. Too much blue light can inhibit melatonin production so your body doesn't know it's bed time. Yellow-tinted blue light-blocking glasses and lens filters, available from an optometrist, can help. Wearers in one study slept 24 minutes longer and had 58% higher melatonin level.
- Create a sleep zone. No discussing of worries or problems in the bedroom. This way your body will learn that when you climb into bed, it's a signal to wind down and sleep. But- sex is good. Hormones released while getting it on can help you fall asleep. (Sleep Medicine specialist Matthew R. Ebbon, PH D)
- Keep your room dark, quiet, and comfortable. The ideal night time temperature for a bedroom is 68 degrees. If you have cold feet, wear socks to bed.

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2. What else you can do

- Avoid caffeine 6 to 8 hours before bedtime. This includes chocolate!
- Make bedtime a habit. Go to bed at the same time and get up at the same time every day, even week-ends.
- ½ hour before bedtime, do something relaxing. Research shows that reading can reduce stress by 68 %, more than other traditional methods of relaxation. And 6 minutes is all you need to slow down your heart rate. Opt for something light and easy and avoid anything that will reverse those good effects, like horror novels or self-help books that require too much introspection. I personally like a warm bath and a good book.
- Pass on late night snacking.
- Avoid alcohol a few hours before bedtime.
- Exercise regularly. But avoid exercising 2 to 3 hours before bedtime.
- Avoid taking naps after 3 PM. And limit them to less than 1 hour long.

- One hour before bed, write in a journal, make a gratitude list, or make a list of your concerns. Writing out your worries can help you work through your thoughts before you have to go to bed. Keep the total time under 20 minutes, and don't do this too close to bedtime. Set a timer: after it goes off, transition to another activity that's more focused on the present. Worrying can keep you up at night and facing them before you go to bed can reduce your stress hormones and induce sleep.
- If you can't fall asleep in 20 minutes, get up. Try a quiet activity (reading, knitting) and do not return to bed until you're tired. Remember to get up at your normal time!
- Meditation – Research shows that mindfulness or meditation is one of the best methods to get to sleep. An example: Close your eyes, focus on your breathing, an object, or a favorite scene, while inhaling to a count of 4, holding your breath for a count of 5, and exhaling to a count of 6. Repeat for 5 minutes. This clears the mind of worries, stress and your to-do list.
- Be present. This exercise is a quick and easy one that puts you in the control. If you are worrying about something and can't sleep, this exercise brings you back to the present. "Rub the palms of your hands together, take a gentle breath, or make a Mona Lisa smile. When you are present, you are in the driver's seat." The goal is to disrupt the "muscle memory" that allows our bodies to do things without our brains knowing what's going on.
- Lastly, don't worry about not sleeping! Sleep will happen eventually, and freaking out about it only makes the problem worse.

Doctors recommend trying a combination of these ideas over a period of time to find a perfect bag of tricks that works for each person.

One of the most serious disorders is Sleep Apnea (Dawn's presentation starts [here](#))

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LEADER'S GUIDE

2019 Oregon FCE State conference

Prepared by Kay Gooding and Dawn Westphal

INTRODUCTION OF TOPIC FOR THE SLEEP APNEA PORTION

You try to get a full night's sleep, but you still feel exhausted in the morning. By afternoon, you're dragging. The tiredness makes you irritable and scatterbrained. Your spouse isn't getting enough sleep either due to your snoring and worries when you stop breathing periodically throughout the night. But you don't remember any of it.

You may be experiencing sleep apnea. Left untreated, this nighttime breathing disorder not only causes daytime sleepiness and fatigue, but also can lead to cardiovascular problems.

OVERVIEW

Sleep apnea is a potentially serious sleep disorder in which breathing repeatedly stops and starts. You may have sleep apnea if you snore loudly, and you feel tired even after a full night's sleep.

The main types of sleep apnea are:

- **Obstructive sleep apnea**, the more common form that occurs when throat muscles relax.
- **Central sleep apnea**, which occurs when your brain doesn't send proper signals to the muscles that control breathing.
- **Complex sleep apnea syndrome**, occurs when someone has both obstructive and central sleep apnea.

CAUSES

During sleep, muscles in the back of your throat (pharynx) relax. These muscles normally keep your airway open by providing support to structures in your mouth and throat, such as the small, teardrop-shaped tissue at the back of your throat (uvula), the soft palate, your tonsils and your tongue. With obstructive sleep apnea, these structures collapse inward and obstruct airflow. Obstruction of airflow lowers the level of oxygen in your blood. After 10 to 30 seconds of insufficient exchange of air, your brain rouses you to a lighter level of sleep or brief wakefulness. The muscles then regain their normal tone, the obstruction is relieved, possibly with a snort, and you resume breathing. This temporary cessation of breathing is called apnea.

Central sleep apnea is a less common form of sleep apnea that occurs when your brain fails to transmit signals to your breathing muscles. This means you make no effort to breathe for a short period of time. You may awaken with a shortness of breath or have a difficult time getting to sleep or staying asleep.

SYMPTOMS

The symptoms of obstructive and central sleep apnea overlap, sometimes making the type of sleep apnea more difficult to determine. The most common signs and symptoms of both include:

- Loud snoring, which is usually more prominent in obstructive sleep apnea
- Episodes of breathing cessation during sleep witnessed by another person
- Abrupt awakenings accompanied by shortness of breath, which more likely indicates central sleep apnea
- Awakening with a dry mouth or sore throat
- Morning headache
- Difficulty staying asleep (insomnia)
- Excessive daytime sleepiness (hypersomnia)
- Attention problems
- Irritability

Untreated sleep apnea can lead to other problems. One of the more serious consequences of daytime sleepiness is an increased risk of motor vehicle accidents. Difficulty concentrating and lack of energy can challenge your productivity and relationships. Sleep apnea also may affect your cardiovascular system. Sudden drops in blood oxygen levels that occur during sleep

apnea lead to increased blood pressure and strain on the cardiovascular system. Obstructive sleep apnea has been associated with high blood pressure, coronary artery disease, heart attack, heart failure, abnormal heart rate, stroke, blood clots and diabetes.

TIME TO SEE THE DOCTOR

So now you and your partner are pretty sure you have some or all of these symptoms. Time to consult the professionals! Your doctor may make an evaluation based on your signs and symptoms or may refer you to a sleep disorder center. There, a sleep specialist can help you decide on your need for further evaluation.

Such an evaluation often involves overnight monitoring of your breathing and other body functions during sleep. Home sleep testing may also be an option.

PREPARING FOR YOUR APPOINTMENT

- **Be aware of any pre-appointment restrictions.** Be sure to ask if there's anything you need to do in advance, such as modify your diet or keep a sleep diary.
- **Write down any symptoms you're experiencing,** including any that may seem unrelated to the reason for the appointment.
- **Write down key personal information,** including any stresses or life changes.
- **Make a list of all medications, vitamins or supplements** you may be taking.
- **Ask a family member or friend along,** if possible. Someone who accompanies you may remember information that you missed or forgot. Also, your bed partner may be more aware of your symptoms than you are.
- **Write down questions to ask your doctor.**

Your time with your doctor is limited, so preparing a list of questions ahead of time will help you make the most of your visit.

Some basic questions to ask your doctor include:

- What's the most likely cause of my symptoms?
- What kinds of tests do I need?
- Is my condition likely temporary or long lasting?
- What treatments are available?
- Which treatment do you think would be best for me?

- I have other health conditions. How can I best manage these conditions together?
- Should I see a specialist?

In addition to the questions that you have prepared to ask your doctor, don't hesitate to ask additional questions during your appointment.

TESTS TO DETECT SLEEP APNEA

- **Nocturnal polysomnography.** During this test, you're hooked up to equipment that monitors your heart, lung and brain activity, breathing patterns, arm and leg movements and blood oxygen levels while you sleep.
- **Home sleep tests.** In some cases, your doctor may provide you with a simplified test to be used at home. These tests usually involve measuring your heart rate, blood oxygen level, airflow and breathing patterns. If you have sleep apnea, the test results will show drops in your oxygen level during apneas and subsequent rises with awakenings.

If the results of the your home sleep test are abnormal, your doctor may be able to prescribe a therapy without further testing. Portable monitoring devices don't detect all cases of sleep apnea, so your doctor may still recommend polysomnography even if your initial results are normal.

TREATMENT

For milder cases of sleep apnea, your doctor may recommend only lifestyle changes. If you have nasal allergies, your doctor will recommend treatment for your allergies.

LIFESTYLE AND HOME REMEDIES

- **Lose excess weight.** Even a slight loss in excess weight may help relief constriction of your throat. In some cases, symptoms may go into complete remission if you return to a healthy weight. However, sleep apnea will likely come back if you regain the weight.
- **Exercise.** Regular exercise can help ease the symptoms even without weight loss. A good goal is to try to get 30 minutes of moderate activity, such as a brisk walk, most of the days of the week.
- **Sleep on your side or abdomen rather than on your back.** Sleeping on your back can cause your tongue and soft palate to rest against the back of your throat and block your airway. To prevent sleeping on your back, try sewing a tennis ball in the back of your pajama top.
- **Avoid alcohol and certain medications such as tranquilizers and sleeping pills.** These relax the muscles in the back of your throat, interfering with breathing.

- **Keep your nasal passages open at night.** Use saline nasal spray to help keep your nasal passages open. Talk to your doctor about using any nasal decongestants or antihistamines because these medications are generally recommended only for short-term use.
- **Stop smoking, if you're a smoker.** Smoking worsens obstructive sleep apnea.

If these measures don't improve your signs and symptoms or if your apnea is moderate to severe, a number of other treatments are available.

THERAPIES

- **Continuous positive airway pressure (CPAP).** If you have moderate to severe sleep apnea, you may benefit from a machine that delivers air pressure through a mask placed over your nose while you sleep. With CPAP, the air pressure is somewhat greater than that of the surrounding air, and is just enough to keep your upper airway passages open, preventing apnea and snoring. Many different types of masks are available and some styles don't cover the nose or mouth, but rather sit gently under the nostrils or use soft prongs that go into the nostrils. With a little experimentation, most people find a mask that provides a comfortable and secure fit.
- **Other airway pressure devices.** If CPAP continues to be a problem for you, you may be able to use a different type of device that automatically adjusts the pressure while you're sleeping (Auto-CPAP). Units that supply bilevel positive airway pressure (BiPAP) are also available. These provide more pressure when you inhale and less when you exhale.
- **Oral appliances.** Another option is wearing an oral appliance designed to keep your throat open. CPAP is more reliably effective than oral appliances, but oral appliances may be easier to use. A number of devices are available from your dentist.
- **Surgery.** Surgery is usually only an option after other treatments have failed. Generally, at least a three-month trial of other treatment options is suggested before considering surgery. Your doctor may recommend surgery to clear or increase the size of your airway, for which there are several different surgical procedures.

NEWER NO-MASK THERAPIES

- **Expiratory positive airway pressure (EPAP).** These small single-use devices are

placed over each nostril before you go to sleep. The device is a valve that allows air to move freely in, but when you exhale, air must go through small holes in the valve. This increases pressure in the airway and keeps it open.

- **Negative pressure therapy.** The Winx Sleep Therapy system provides negative pressure by gently holding the tongue forward during sleep. This is achieved through the use of a semi-custom fit mouthpiece with a small tube attached. Suction holds the tongue forward, preventing it from blocking the airway.
- **Implantable devices.** These are remote control devices which stimulate the nerves that control tongue movement to move your tongue forward in your mouth when you breathe, and as a result prevents obstruction

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Sources for Sleep Apnea:

Mayo Clinic Health Newsletter and website www.mayoclinic.org

Krames Patient Information www.kramesstore.com

Krames booklet "Snoring and Sleep Apnea"

More Information:

American Academy of Sleep Medicine www.sleepeducation.com

American Sleep Apnea Association www.sleepapnea.org

National Sleep Foundation www.sleepfoundation.org

Prepared by Dawn Westphal, Washington County

Additional sources for the Sleep Solutions Portion:

St. Vincent Sleep Clinic

Legacy Meridian Park Sleep Clinic

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2019 OREGON FCE STATE CONFERENCE

PARTICIPANT HAND-OUT

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National Sleep Foundation www.sleepfoundation.org

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Additional sources for the sleep solutions portion:

St. Vincent Sleep Clinic

Legacy Meridian Park Sleep Clinic

Prepared by Kay Gooding, Washington County

SLEEP APNEA - SELF-TEST

The following questions will help you assess your risk for sleep apnea:

1. Do you experience any of these problems?

- Daytime sleepiness
- Unrefreshing sleep
- Fatigue
- Insomnia
- Trouble falling asleep or staying asleep

2. Do you ever wake from sleep with a choking sound or gasping for breath?

3. Has your bed partner noticed that you snore or stop breathing while you sleep?

4. Do you have any of these other symptoms?

- Nocturia (waking during the night to go to the bathroom)
- Morning headaches
- Difficult concentrating
- Memory loss
- Decreased sexual desire
- Irritability

5. Do you have any of these physical features?

- Obesity - body mass index (BMI) of 30 or higher **
- Large neck size - 17 inches or more for men, 16 inches or more for women
- Enlarged tongue or tonsils
- Recessed jaw
- Nasal polyps or deviated septum

6. Do you have any of these other medical problems that are common in people with sleep apnea?

- High blood pressure
- Mood disorders
- Coronary artery disease
- Stroke
- Congestive heart failure
- Heart attack
- Atrial fibrillation
- Type 2 diabetes

**

BMI Calculator

weight

703 x height squared (x2) = BMI

THE MAIN TYPES OF SLEEP APNEA

- OBSTRUCTIVE SLEEP APNEA (ONE SLIDE)
 - CENTRAL SLEEP APNEA
 - COMPLEX SLEEP APNEA
-

SYMPTOMS OF SLEEP APNEA

- LOUD SNORING
 - EPISODES OF BREATHING CESSATION
 - ABRUPT AWAKENINGS WITH SHORTNESS OF BREATH
 - AWAKENING WITH DRY MOUTH OR SORE THROAT
 - MORNING HEADACHE (SECOND SLIDE)
 - DIFFICULTY STAYING ASLEEP
 - EXCESSIVE DAYTIME SLEEPINESS
 - ATTENTION PROBLEMS
 - IRRITABILITY
-

TESTS TO DETECT SLEEP APNEA

- NOTURNAL POLYSOMNOGRAPHY (THIRD SLIDE)
 - HOME SLEEP TESTS
-

LIFE STYLE AND HOME REMEDIES

- LOSE EXCESS WEIGHT
 - EXERCISE (FOURTH SLIDE)
 - SLEEP ON YOUR SIDE OR ABDOMEN
 - AVOID ALCOHOL AND CERTAIN MEDICATIONS
 - KEEP YOUR NASAL PASSAGES OPEN AT NIGHT
 - STOP SMOKING, IF YOU ARE A SMOKER
-

THERAPIES

- CONTINUOUS POSITIVE AIRWAY PRESSURE (CPAP)
 - OTHER AIRWAY PRESSURE DEVICES (AUTO-CPAP OR BiPAP)
 - ORAL APPLIANCES
 - SURGERY (COMBINE THESE TWO OR MAKE FIFTH AND SIXTH)
-

NEWER NO-MASK THERAPIES

- EXPIRATORY POSITIVE AIRWAY PRESSURE (EPAP)
- NEGATIVE PRESSURE THERAPY
- IMPLANTABLE DEVICES

SOURCES:

MAYO CLINIC HEALTH NEWSLETTER AND WEBSITE www.mayoclinic.org

KRAMES PATIENT INFORMATION www.kramesstore.com

FOR MORE INFORMATION

AMERICAN ACADEMY OF SLEEP MEDICINE

www.sleepeducation.com

(LAST SLIDE)

AMERICAN SLEEP APNEA ASSOCIATION

www.sleepapnea.org

NATIONAL SLEEP FOUNDATION

www.sleepfoundation.org

Prepared by Dawn Westphal, Washington County

UNTREATED SLEEP APNEA CAN LEAD TO OTHER PROBLEMS

- DIFFICULTY CONCENTRATING
- LACK OF ENERGY
- HIGH BLOOD PRESSURE
- CORONARY ARTERY DISEASE (SLIDE ?)
- HEART ATTACK
- HEART FAILURE
- ABNORMAL HEART RATE
- STROKE
- BLOOD CLOTS
- DIABETES