Beating the blues by treating sleep apnea

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About one in five people with depression also suffers from a sleep-related breathing disorder, most often obstructive sleep apnea. What's more, a large European study has reported that people diagnosed with depression were about five times as likely as people without depression to have a sleep-related breathing disorder.

Researchers debate which comes first, the sleep problem or the depression. But in terms of treatment, it doesn't matter. What may matter is treating the sleep problem, because research suggests that treatment for obstructive sleep apnea can help to alleviate depression in some people.

Yet it isn't always easy to treat both problems at once. Here's what you should know about the challenges.

Recognizing the problem

Once dismissed as inconsequential snoring, obstructive sleep apnea is a serious medical problem that affects about 4% of men and 2% of women over all, and almost 20% of the elderly. The airway becomes blocked, or breathing muscles stop moving, causing a nearly suffocating lack of oxygen and buildup of carbon dioxide. The sleeper awakens and gasps loudly for air until blood oxygen levels return to normal. Some people with obstructive sleep apnea repeat this cycle hundreds of times a night, yet may not be aware of it.

The disorder's hallmark symptom is frequent and loud snoring, but unlike simple snoring, the consequences of obstructive sleep apnea aren't limited just to annoying a bed partner. People with obstructive sleep apnea are excessively sleepy during the day, and they have two to six times as many traffic accidents as individuals without this condition. And because the heart must work harder every time blood oxygen levels dip, people with obstructive sleep apnea have a higher risk for stroke, heart attack, and heart failure.

For reasons that aren't as well understood, obstructive sleep apnea also increases the risk for depression. For example, one research team found that among 1,400 randomly selected people, those with even a mild sleep-related breathing disorder were 60% more likely than the others to be depressed. Some evidence also indicates that a breathing disorder may make existing depression worse.

Most research indicates that treating obstructive sleep apnea can improve mood and alleviate other symptoms of depression. The most studied therapy for obstructive sleep apnea is continuous positive airway pressure.

Some experts believe sleep apnea is too often overlooked. They recommend evaluating and treating it. Given the evidence, consultation and treatment by a sleep specialist may lead to an improvement in symptoms of depression.

Making CPAP use easier

Many people using continuous positive airway pressure (CPAP) or another breathing device while sleeping need time and coaching to learn how to use it comfortably. In addition, problems such as pressure sores, nasal congestion, air leakage, and claustrophobia may further discourage people. This helps explain why several large studies have found CPAP compliance rates to be good but not spectacular, with 65% to 80% of people using the devices as instructed so that they benefit. Here are some tips on making the device easier to use:

Obtain the device from a sleep specialist, who can provide detailed instruction at the outset and follow-up coaching.

Expect an overnight stay at the doctor's office or at a sleep lab, so that air pressure can be adjusted to ensure best results.

If the mask irritates the skin, ask about special moisturizers for CPAP users. (Petroleum-based products may damage the mask.)

If the mask irritates the nose, ask about nasal pillows, which fit into the nostrils. These take pressure off the bridge of the nose.

If nasal congestion develops, ask whether nasal sprays or surgery might correct it.

Some people breathe through their mouths at night; they will do better with a full-face mask to cover both nose and mouth.

A chin strap can help keep the jaw closed, so that the mask does not leak air.

If breathing against the force of the air pressure is too difficult, look into a bilevel device, which lowers the air pressure during exhalation.

Build up slowly. Most people can't wear the mask all night long at first. Wearing it for a few hours first, then gradually increasing the time with it, may help.

Evaluating treatment options

Lifestyle changes. Lifestyle changes can improve obstructive sleep apnea, especially in milder cases. However, these do require a great deal of motivation and energy, something that may be in short supply when a person is depressed.

Weight loss can help improve the mechanics of breathing. Sleeping on one's side instead of the back can take pressure off the air passages. And since alcohol, sedatives, and muscle relaxants can aggravate the underlying physical problem, avoiding these substances should help.

Positive airway pressure. For moderate to severe obstructive sleep apnea, most experts recommend positive airway pressure. A device supplies pressurized air through a mask that covers the nose. The air

pressure counteracts the tendency for the airway to collapse when muscles relax during sleep. This allows the person to breathe regularly and sleep normally without interruption.

The most common form of positive airway pressure is continuous positive airway pressure, or CPAP, in which the air pressure stays constant whether a person is breathing in or out. CPAP devices were once quite cumbersome but have become more comfortable. The current lighter and quieter devices offer options such as warmed humidified air (which alleviates nasal congestion, skin dryness, and dry mouth) and a gradual pressure buildup that gives people time to adapt and fall asleep more easily. Users can choose from a variety of mask styles, so they are more likely to find one that fits comfortably.

For people who have difficulty exhaling against the constant pressure of CPAP, a refinement called bilevel PAP may be more tolerable. It delivers air under higher pressure as the sleeper inhales and switches to a lower pressure during exhalation to make it easier to breathe out. The most recent innovation (called AutoPAP) is the inclusion of an internal regulator that moves the pressure up and down, rather than staying at a fixed setting.

Be aware that these devices are expensive, especially for people on fixed incomes or without good insurance coverage. CPAP devices range from several hundred dollars to nearly $1,000; the newer AutoPAP and bilevel devices cost even more. Medicare and other insurance plans provide some coverage, but it's wise to read the details about deductibles and limitations.

Dental devices. Devices that fit in the mouth to reposition the lower jaw and tongue, propping the airway open, are fairly easy to use. These devices have a 50% to 70% success rate for mild to moderate obstructive sleep apnea. They are less helpful for severe sleep apnea.

Although less cumbersome and easier to travel with than CPAP, dental devices can cause teeth to shift or create problems with the temporomandibular joint in the jaw. People considering this option should consult with a dentist trained in managing obstructive sleep apnea. Regular follow-up visits are also important. A sleep study done with the device in place helps determine whether it's working correctly.

Surgical options. Several surgical options exist, depending on the underlying problem that is causing sleep apnea. For example, if sleep apnea has developed because tissue at the back of the mouth and throat has loosened or grown too large, thereby partially blocking the airway, a technique known as uvulopalatopharyngoplasty may be used to remove excess tissue. Surgery to move the upper or lower jaw forward may enlarge the upper airway for other people.

But it's important to know that although some patients improve after surgery, many don't. Older patients heal slowly and may encounter more complications, such as postoperative infections and difficulty swallowing. In some cases, symptoms actually worsen after surgery. However, surgery does offer the possibility of a cure. People who want to pursue this strategy should consult with a sleep specialist to review all the options and decide whether they're appropriate.

Medications. These are used primarily in conjunction with other treatments. Two types of antidepressants — tricyclics and selective serotonin reuptake inhibitors — may slightly improve airway muscle tone and are helpful for a small percentage of people with mild obstructive sleep apnea.

In 2004 the FDA approved the use of the drug modafinil (Provigil) to treat the daytime sleepiness that sometimes occurs in people who use a PAP device successfully. While modafinil can help people with obstructive sleep apnea who have trouble staying alert during the day, bear in mind that the drug does not address the source of sleep apnea. Modafinil therefore does not replace other treatments, but it can be a helpful addition to a treatment program.

Referral Sources

The following physicians specialize in diagnosis and treatment of sleep apnea in Winston-Salem:

Dr. Lauve 765-5553
Dr. Smith 768-5834
Wake Forest University / NC Baptist 716-4551

In Greensboro: Moses Cone 832-0410

Please select a clinic and call them; they will probably need a referral from us so call us back with the fax number to send it to and we will (our number is 722-7266)

Resources

The following organizations provide basic information about sleep disorders, as well as referrals to specialists or support groups.

American Academy of Sleep Medicine1 Westbrook Corporate CenterSuite 920Westchester, IL 60154708-492-0930 www.aasmnet.org

American Sleep Apnea Association1424 K St. NW, Suite 302Washington, DC 20005202-293-3650 www.sleepapnea.org

National Sleep Foundation1522 K St., NW, Suite 500Washington, DC 20005202-347-3471 www.sleepfoundation.org