

Type 2 Diabetes is defined as a condition that affects the way your body metabolizes sugar (glucose), a source of fuel for your body. Your pancreas makes a hormone called insulin. Insulin helps your cells convert glucose into energy. With type 2 diabetes, your body either resists the effects of insulin or doesn't produce enough, causing high blood sugar. The CDC estimates more than 20 million Americans have type 2 diabetes. About half of all diabetic patients also have sleep apnea.

There are two forms of sleep apnea: obstructive sleep apnea (OSA) and central sleep apnea (CSA). People can have both. OSA is a blockage of your airway that causes airflow to your lungs to stop while you are sleeping. CSA is due to a pause in your breathing from miscommunication between your brain and breathing muscles. These events repeatedly occur during the night and continue night after night, eventually affecting how your body systems work.

Treating diabetes and sleep apnea can improve the quality of a patient's life.

Diabetes and sleep apnea have many of the same symptoms.

- **Waking up many times each night**
- **Getting up to use the bathroom frequently during sleep**
- **Lack of energy**
- **Feeling sleepy or tired all day**

What should I do about it?

Diagnosis - Sleep apnea is often first suspected by your family. Ask your bed partner if you snore, snort, gasp or struggle to breathe, or have pauses in breathing while you sleep. These are signs you may have sleep apnea. Let your doctor know so that they can

determine if you are at risk for sleep apnea. A sleep study is the test used to diagnose sleep apnea and other sleep conditions. These tests measure your heart rate, blood oxygen level, airflow and breathing patterns. If the results are not normal, your doctor will discuss treatment options.

What are the treatment options?

Treatment may include the following:

CPAP or BPAP – While wearing a mask during sleep the CPAP or BPAP machine moves air into the nasal passages at pressures high enough to allow normal breathing.

Weight loss – Weight loss helps to decrease the severity of sleep apnea.

Oxygen – The use of oxygen alone or in addition to PAP therapy can be used to treat some forms of sleep apnea.

Oral device – These devices enlarge the airway by pulling the jaw forward to allow for normal breathing.

Why do I need to be tested and treated?

Several research studies have shown that many patients with diabetes experience the following benefits by treating their sleep apnea:

- Improved glucose control and lower HbA1c¹
- Effective treatment of OSA can improve insulin resistance²
- Improved quality of life by relieving the symptoms of sleep apnea

Talk to your physician about your sleep concerns and symptoms.

1- Malik JA, Masoodi SR, Shoib S. Obstructive sleep apnea in Type 2 diabetes and impact of continuous positive airway pressure therapy on glycemic control. *Indian J Endocrinol Metab.* 2017;21(1):106–112.
2-Kaur A, Mokhlesi B. The Effect of OSA Therapy on Glucose Metabolism: It's All about CPAP Adherence!. *J Clin Sleep Med.* 2017;13(3):365–367. Published 2017 Mar 15. doi:10.5664/jcsm.6480