

## Diabetes and Restless Legs Syndrome

### What is Restless Legs Syndrome

Restless Legs Syndrome (RLS) is a condition in which you feel an uncomfortable sensation in your legs and are compelled to move them.

It occurs when you are trying to relax or fall asleep. You may experience RLS when you have been sitting or lying down for an extended period of time. Examples include dialysis treatment, sitting in the car, or riding on a plane.

The uncomfortable sensations vary from person to person and include itchy, crawling, or "creepy" sensations. Restless Legs Syndrome can also be painful; some sensations can feel like burning, aching, or prickling.

### What causes Restless Legs Syndrome?

RLS generally affects older people. However, there are some health conditions associated with it. They include the following:

- Nerve damage from diabetes
- Chronic kidney disease
- Possible iron deficiency or lack of erythropoietin

Diabetes can contribute to RLS. Because diabetes can damage tiny blood vessels and nerves, diabetics are often told to carefully examine their feet for any outward signs or injury, which may otherwise go unnoticed.

Tobacco, alcohol, and caffeine use can worsen the symptoms of RLS.



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The Guthrie County Hospital Sleep Study Program is accredited by the Accreditation Commission for Health Care (ACHC).

For more information on ACHC's complaint process, please contact ACHC's Complaints Department at (855) 937-2242.

## DIABETES & SLEEP HOW THEY RELATE



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## Diabetes and Sleep Apnea Are you at risk?

**If you have diabetes and you snore, the two conditions may be related. Some snorers suffer from sleep apnea.**

Sleep apnea is a sleep-related breathing disorder in which a temporary airway collapse restricts or briefly stops the breathing.

Blood oxygen levels drop rapidly, and the individual wakes up gasping for breath. This pattern will likely repeat itself in a few minutes. This process can occur throughout the night hundreds of times.

The implications go far beyond an upset spouse or an order to sleep in another room. The sleep apnea sufferer is not getting quality rest. Therefore, his/her energy and glucose levels will be affected.

Untreated sleep apnea can increase blood sugars as it lowers energy. Gaining control of this disorder can be good for diabetes management and can improve the diabetic's A1c numbers.

**Up to 90% of people who have obstructive sleep apnea are unaware they have it. Many of these individuals may also be diabetic.\***

## Symptoms of Sleep Apnea

- Loud snoring
- Excessive sleepiness
- Observed pauses in breathing
- Morning headaches
- Frequent nighttime urination
- Difficulty concentrating and irritability

## How it affects you

### Stress on your heart

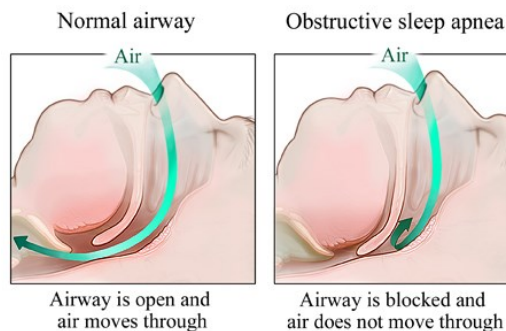
- The pauses in breathing caused by airway blockages decrease blood oxygen levels. This process causes changes in heart rhythm and blood pressure, which strains the cardiovascular system.

### Excessive daytime sleepiness

- People who suffer from sleep apnea usually have disrupted sleep at night causing them to not feel rested

### Poor quality of life

- Sleep apnea sufferers often report irritability, decreased memory and concentration, and strained personal relationships. Deprivation of restful sleep is the reason.



**Type 2 diabetics with obstructive sleep apnea, who receive therapy for OSA, can lower their glucose levels.\*\***

## What are the treatments?

### Physical or Mechanical Treatment

- **CPAP** (Continuous Positive Airway Pressure)

This treatment involves wearing a mask that supplies a steady stream of air through the nose during sleep. The mask helps prevent airway restriction or collapse, and brings an end to the snoring, gasping, and interrupted sleep.

### Dental Appliances

### Behavioral Therapy

- Avoid alcohol, nicotine, and sleep medications.
- Lose weight if overweight.

### Surgery

**When OSA sufferers wore a CPAP for at least four hours a night, studies show a significant reduction in their glucose levels; and for some, a reduced need for medications.\***

\* The Diabetes Action Network of the National Federation of the Blind Diabetes Support and Information. Volume 20, Number 4, Fall Edition 2005

\*\*Babu, MD, Ambika et al., "Type 2 Diabetes, Glycemic Control, and Continuous Positive Airway Pressure in Obstructive Sleep Apnea," Archives of Internal Medicine February 28, 2008: 447-452.