

## **What is Central Sleep Apnea?**

Central sleep apnea is a sleep disorder in which breathing stops over and over during sleep.

### **Causes**

Central sleep apnea results when the brain temporarily stops sending signals to the muscles that control breathing.

The condition often occurs in people who have certain medical problems. For example, it can develop in someone who has a problem with the brainstem, which controls breathing.

Conditions that can cause or lead to central sleep apnea include:

- Problems that affect the brainstem (the brainstem controls breathing) including brain infection, stroke, or conditions of the cervical spine (neck)
- Parkinson disease
- Obesity
- Certain medicines, such as narcotic painkillers
- Heart failure

If the apnea is not associated with another disease, it is called idiopathic central sleep apnea.

A condition called Cheyne-Stokes respiration can mimic central sleep apnea. This involves breathing to a variable depth, usually while sleeping.

Central sleep apnea is not the same as obstructive sleep apnea. With obstructive sleep apnea, breathing stops and starts because the airway is narrowed or blocked. But a person can have both conditions, such as with a medical problem called obesity hypoventilation syndrome.

### **Symptoms**

Persons with central sleep apnea have episodes of disrupted breathing during sleep.

Other symptoms may include:

- Chronic fatigue
- Daytime sleepiness
- Morning headaches
- Restless sleep

Other symptoms may occur if the apnea is due to a problem with the nervous system. Symptoms depend on the parts of the nervous system that are affected, and may include:

- Swallowing problems
- Voice changes

- Weakness or numbness throughout the body

### Exams and Tests

The health care provider will perform a physical exam. Tests will be done to diagnose an underlying medical condition. A sleep study (polysomnography) can confirm sleep apnea.

Other tests that may be done include:

- Echocardiogram
- Lung function
- MRI of the spine or neck

### Treatment

Treating the condition that is causing central sleep apnea can help manage symptoms. For example, if central sleep apnea is due to heart failure, the goal is to treat the heart failure itself.

Devices used during sleep to aid breathing may be recommended. These include nasal continuous positive airway pressure (CPAP), bilevel positive airway pressure (BiPAP) or adaptive servo-ventilation (ASV). Some types of central sleep apnea are treated with medicines that stimulate breathing.

Oxygen treatment may help ensure the lungs get enough oxygen while sleeping.

If narcotic medicine is causing the apnea, the dosage may need to be lowered or the medicine changed.

### Outlook (Prognosis)

How well a patient does depends on the medical condition causing central sleep apnea.

The outlook is usually favorable for persons with idiopathic central sleep apnea.

### Possible Complications

Complications may result from the underlying disease causing the central sleep apnea.