

# Obstructive Sleep Apnea in Children

## WHAT IS OBSTRUCTIVE SLEEP APNEA?

Obstructive sleep apnea is a medical condition in which a child has repeated, brief, temporary breathing pauses (apneas) during sleep. Lack of breathing causes a decrease in oxygen and an increase in carbon dioxide (CO<sub>2</sub>) in the body. These changes signal the brain that breathing has stopped; the brain then signals the body to briefly awaken and restart breathing.

Thus, these obstructions result in frequent brief arousals from sleep. Although the actual number of minutes of arousal during the night may be small, these repeated, brief disruptions in sleep could lead to significant daytime symptoms in children. A comparable image would be that of being poked by someone 15–30 times a night. However, children are usually unaware of waking up, and parents often describe very restless sleep but usually do not say that their child wakes up completely.

## WHAT CAUSES OBSTRUCTIVE SLEEP APNEA?

In most children, sleep apnea is caused by large tonsils and/or adenoids, which can block the airway. Sleep apnea is also more common in children who are overweight, although some children with enlarged tonsils and/or adenoids may be underweight. Younger children with sleep apnea may have poor growth because of disruption in nighttime secretion of growth hormone. Other children who are at high risk for sleep apnea include those with a narrow facial bone structure, a history of cleft palate, and Down syndrome. Children with allergies, asthma, reflux, or frequent sinus infections may also be at risk for obstructive sleep apnea.

## WHAT ARE THE SYMPTOMS OF OBSTRUCTIVE SLEEP APNEA?

- Snoring
- Breathing pauses during sleep or difficulty breathing during sleep
- Mouth breathing
- Noisy breathing
- Restless sleep
- Sweating during sleep
- Morning headaches
- Difficulty waking in the morning
- Nasal voice

Children with obstructive sleep apnea may also have daytime symptoms as a result of the sleep disruption. They may be sleepy during the day, taking unplanned naps or falling asleep in school. Children with sleep apnea may also be moody, irritable, or cranky. In addition, behavior problems and poor school performance may be noted.

## **HOW IS OBSTRUCTIVE SLEEP APNEA DIAGNOSED?**

Many children with symptoms of obstructive sleep apnea require an overnight sleep study to confirm the diagnosis. The overnight sleep study, which is done in a specialized sleep laboratory, monitors breathing, heart rate, and sleep interruptions.

## **HOW IS OBSTRUCTIVE SLEEP APNEA TREATED?**

For most children with sleep apnea, removal of tonsils and adenoids, if enlarged, takes care of the problem. An ear, nose, and throat specialist makes the evaluation for such surgery. Children who are overweight should be counseled about nutrition and exercise. Those with allergies or asthma may be treated with medication. Nasal sprays or sleeping in positions in which the child does not snore may also be recommended. Some children require a treatment called continuous positive airway pressure, which is a portable breathing machine used at night.