



## Spokane Regional Sleep Apnea Network

[www.spokanesleepapneanetwork.com](http://www.spokanesleepapneanetwork.com)

### Sleep Apnea in Children

Obstructive sleep apnea (OSA) is a condition that affects both adults and children. It consists of pauses in airflow that occur during sleep, as the airway collapses due to loss of muscle tone and inspiratory negative pressure. Pauses in breathing that are 10 seconds or more are considered abnormal, as they can lead to significant blood oxygen desaturations and sleep disruption. When these episodes occur repeatedly through the night, sleep quality suffers - the body's normal recovery functions are impaired and a number of consequences may become apparent:

- sleepiness, falling asleep in school or at unusual times
- fatigue, loss of interest in normal activities
- attention problems in school (according to the American Sleep Apnea Association, recent studies indicate that up to 25% of children diagnosed with ADHD may instead be suffering from OSA)
- impaired neurocognitive executive functions such as planning, self-monitoring, self-regulation of emotions and cognitive flexibility
- hyperactivity, social and behavioral problems
- personality changes such as being moody or irritable
- headaches, especially in the morning

Because several key hormones are regulated during sleep, OSA may result in failure to thrive, while in other patients OSA may promote obesity. Although less common than in adults, hypertension and cardiac abnormalities may also occur as a result of childhood OSA.

In addition to the manifestations listed above, signs and risk factors suggesting that OSA may be present in a child include (check all that apply):

- frequent snoring
- gasping or choking sounds during sleep, multiple awakenings
- pauses in breathing, which often resume with a "snort"
- large tonsils and/or adenoids (the most common reason for sleep-disordered breathing in children). These can be identified on clinical examination as well as CBCT and other forms of imaging, although a sleep test is required for a definitive diagnosis of OSA
- obesity: as in adults, children who are overweight have a higher risk of sleep apnea, which in turn increases insulin resistance and predisposes to obesity
- muscle tone problems, such as in muscular dystrophy and cerebral palsy
- small or narrow jaws, large tongue or cleft palate
- a family history of OSA
- mouth breathing due to nasal congestion; often this condition sets the stage for adult OSA, as the mouth breathing allows the posterior arches to narrow and crowd out the tongue

### Diagnosing Pediatric OSA:

A sleep study is typically required for definitive OSA diagnosis, but other diagnostic tools such as CBCT imaging may provide valuable information about the nature and location of the airway obstruction.

### Treatment Options

Adenotonsillectomy is the most commonly prescribed treatment for pediatric OSA, sometimes followed by an orthodontic phase to enlarge the constricted arches. In some cases CPAP, positional training, weight loss or treatment of nasal allergies may also be considered.

**For more information, or to find local sleep apnea resources, please see [www.spokanesleepapneanetwork.com](http://www.spokanesleepapneanetwork.com)**

**The information on this form is for educational purposes only and should not be used as a substitute for the medical advice of one's personal health care provider.**