

AIRWAY DYSFUNCTION AND SLEEP-DISORDERED BREATHING IN CHILDREN

Airway Dysfunction (AD) and Sleep-Disordered Breathing (SDB) in children is a condition where there is inadequate or improper breathing in a growing child. It occurs both day and night but is usually more severe during sleep. If undiagnosed and untreated, it can lead to disturbances in physical and cognitive development.

Frequently Asked Questions

1. *What are some of the clinical signs and symptoms of AD and SDB in children?*

Sleep Issues:

- Daytime sleepiness or hyperactivity
- Snoring or heavy breathing during sleep
- Difficulty in falling asleep or restless sleep
- Frequent movements (disheveled bed sheets in the morning)
- Sleep walking or talking
- Bed wetting
- Grinding the teeth during sleep

Clinical signs and symptoms:

- Dark circles under the eyes
- Chapped lips
- An open mouth posture of the lower jaw
- Frequent ear infections.
- Improper growth and development of the jaws or a lack of space between the baby teeth or crowding of the baby or adult teeth

2. *What are possible causes of AD and SDB in children?*

Oral:

- Mouth breathing
- Tongue or lip ties
- Enlarged tonsils and adenoids
- Nasal obstruction
- Habits such as thumb sucking or prolonged pacifier use
- Poor general or oral muscle tone

General:

- Poor nutrition
- Food or environmental allergies

3. *What effects can AD and SDB have on children if left untreated?*

Behavioral:

- Depression, anxiety, Attention Deficit Hyperactivity Disorder (ADHD), behavioral issues
- Delayed cognitive development, underperformance in school

Muscular-skeletal:

- Underdevelopment of the upper and lower jaws
- Improper eruption of the permanent teeth
- Temporomandibular problems (TMJ)

4. *How are AD and SDB diagnosed in a child?*

The use of various screening tools which involve a combination of:

- A sleep questionnaire, sleep study or home sleep study
- Airway assessment
- High resolution pulse-oximetry (HRPO)

5. *How are AD and SDB managed?*

Non-surgical:

- Proper sleep hygiene
- Avoid allergens including pets
- Nasal breathing therapy
- Myofunctional therapy
- Guided growth and development appliance therapy
- Orthodontic treatment

Surgical:

- Correction of a tongue or lip tie
- Removal of the tonsils and adenoids