

# 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
- Tempero-mandibular 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