

Focus: Orofacial Myofunctional Therapy



Healthy Kids Need Healthy Airways!

by Kim Kung, RDH, OMT • kim@faceforwardomt.com

and Kelly Hall, RDH, OMT • backtoyourrootsomt@gmail.com

It has long been known about the importance of proper oral hygiene, regular dental check-ups, and good nutrition for achieving and maintaining ideal oral and overall health. But often a critical piece of the puzzle—airway health—is overlooked or missed. Are you doing everything you can to help your pediatric clients thrive and grow into healthy adults?

Breathing is the most essential function of the human body. The way we breathe can have either a positive or negative effect on our bodies.

Human bodies were designed for nasal breathing. Nasal breathing warms, moistens, and filters the air we breathe, calms our nervous system, and allows our cells to receive optimal oxygen uptake. Nasal breathing is also essential for proper growth of the face and jaws in children. However, many factors, typically prevalent from a young age, can influence the body's ability to sustain nasal breathing; a chronic mouth-breathing habit may result.¹

Left untreated, mouth breathing may lead to the development of a long, narrow face, smaller jaws, a high, narrow palate, malocclusion, smaller airways, snoring or obstructive sleep apnea.

When adult clients present with an untreated mouth-breathing habit and constricted airway, we will often see the accompanying symptoms of fatigue, chronic headaches, neck and shoulder tension, poor sleep, difficulty concentrating, anxiety, and depression.

In children, the harmful effects of mouth breathing are even greater since it is during these formative years that the mode of breathing directly influences the growth of orofacial structures and airways. In fact, 82% to 92% of craniofacial growth is complete by the age of 7 so it is essential to address and correct mouth-breathing habits at an early age.²

THE IMPORTANCE OF PROPER ORAL POSTURE

The way we position our lips, tongue, and mandible when we are not eating or speaking is termed "oral rest posture." Proper oral posture involves having the whole tongue fully sealed against the hard palate with lips together and teeth resting slightly apart. This ideal oral posture provides harmony and balance to the orofacial complex, paving the way for good dental, facial, and airway development. The tongue provides light, continuous forces when at rest and when positioned properly, signals the anterior and lateral growth of the maxilla, acting as a natural palate expander in the growing child (Figure 1).



▲ Figure 1. Wide palate good tongue posture

However, in individuals who mouth breathe, the mandible and lips are postured open and the tongue positions itself lower in the mouth. This pressure changes the growth of the mandible, resulting in vertical growth and making the child's face appear longer. Without the constant, light forces of the tongue being applied to the hard palate, the maxilla and mid-face fail to develop at a normal rate, resulting in mid-face deficiency, a high, narrow palate, and a smaller airway (Figure 2).

Understanding the important role that breathing plays in the development of healthy, patent airways allows us to connect the dots between many of the signs and symptoms we see every day in our clinical dental hygiene practices.

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Dental hygienists play a critical role in the early recognition of mouth breathing and airway disorders in children.

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▲ *Figure 2. High palate poor tongue posture*

Making the connection between a child's medical history and clinical presentation during the dental hygiene appointment will lead to the early detection of potential root causes of mouth breathing and allow clients to get treatment at an earlier age.

RED FLAGS IN THE MEDICAL HISTORY

During the health history evaluation, we need to be aware of and look for the red flags that can indicate mouth breathing. When a history or presence of allergies, asthma, ADHD, learning disabilities, frequent colds or poor sleep is reported, we need to observe and question the mode of breathing.

In addition to poor facial growth and development, when children do not breathe well, they do not get the deep, restorative sleep their bodies need, leaving them fatigued and sleep deprived. In children, the result of chronic poor sleep is often observed as hyperactivity or misdiagnosed as ADHD.

Asking the parent about their child's sleep can also reveal other clues:

- ▶ Do they hear their child snoring or grinding their teeth?
- ▶ Is their child a restless sleeper?
- ▶ Does their child have loud breathing or sleep with their mouth open?
- ▶ Does their child wet the bed during sleep?

Red flags for airway disorders and mouth breathing may also be apparent when observing certain facial features and body posture, such as a forward head posture, rolled shoulders, dark circles under the eyes, downturned eyes, a long, narrow face or a retrognathic profile.

Any one of these characteristics may be an indication of a mouth-breathing habit, low-postured tongue, and/or an airway obstruction.

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If you have noticed your client has a mouth-breathing habit or if you have observed other clinical symptoms, a referral for orofacial myofunctional therapy is indicated.

WHAT IS OROFACIAL MYOFUNCTIONAL THERAPY AND HOW DOES IT HELP?

Breathing through the nose with the tongue contacting the palate may seem like an easy thing to do, but for children or adults who have developed a mouth-breathing habit, achieving correct oral posture is not an easy task.

Orofacial myofunctional therapy (OMT) is a program that helps to teach and restore proper strength and coordination of muscles of the orofacial complex to ensure optimal oral function. OMT involves customized neuromuscular exercises related to tongue position, speaking, chewing, and swallowing and to promote exclusive nasal breathing.³

OMT may also involve oral habit elimination programs to assist clients in giving up their thumb or finger sucking, pacifier or other oral habit.

Addressing proper oral function with orofacial myofunctional therapy can also lead to improvements in conditions and symptoms such as TMD/TMJ issues, teeth clenching, bruxism, mouth breathing, tongue thrust, forward head posture, speech impediment, and obstructive sleep apnea.

Often in children, correcting oral resting posture with OMT will result in positive changes in the child's posture and occlusion (Figures 3 and 4).

OMT is often part of a multidisciplinary care system, and referrals to other specialists are often made. In certain cases, OMT may be combined with early orthodontic intervention or tonsil and adenoid removal, helping to guide the proper growth and development in the early years and allowing that child to thrive.

FEELING INSPIRED TO LEARN MORE?

We are strong advocates for the field of orofacial myology and have developed a Canadian-based orofacial myofunctional therapy training program for dental professionals. To learn more, please visit myocoaches.podia.com. We invite you to join us in our next 8-week online program.



▲ Figure 3. Posture before and after



▲ Figure 4. Occlusion before and after

References

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