



## The Importance of Promoting Healthy Oral and Facial Development from Infancy

Babies are born as obligate nasal breathers with a tongue to palate posture and a healthy balance of chest and abdominal breathing at a slow rate. There are so many benefits afforded to your baby when they can gain and maintain this natural pattern and it plays a role in lifelong wellness. The best way to help your baby have optimal facial and oral growth patterns is to ensure they have an open nasal airway, use a lips closed nasal breathing pattern with tongue to palate posture, and can sleep using these patterns as well. Reducing any oral habits or structural differences that prevent this pattern is beneficial (mouth breathing, tethered oral tissues like tongue/lip/cheek ties, pacifier use, thumb/finger sucking, sippy cups and bottles).

Free and full range of motion of the tongue, lips, cheeks, jaw, and head are the support system for optimal function! This support system creates the opportunity for your baby to develop their palate, facial and head shape, airway, and nervous system to its fullest biological potential building a foundation for correct sucking, chewing, swallowing, breathing, and even speech when they are older. Note that these are considered general guidelines but if you notice your baby presents with symptoms on the "red flag" list, then seeking assessment is recommended. Professionals with expertise in oral structure and function like speech-language pathologists, occupational therapists, international board-certified lactation consultants, or certified orofacial myologists can assess and give recommendations for appropriate interventionists to support you and your baby on this journey to being happy, healthy, and thriving.



Guilleminault C, Huang Y (2017). From oral dysfunction to dysmorphism and the onset of pediatric OSA. Sleep Medicine Reviews, 40: 203-14 doi: 10.1016/j.smrv. 2017.06.008. Huang YS, Quo S, Berkowski JA, Guilleminault C (2015). Short lingual frenulum and obstructive sleep apnea in children. International Journal of Pediatric Research 1:003. Lee SH, Choi JH, Shin C, LeeHM, Kwon SY, Lee SH (2007). How does open-mouth breathing influence upper airway anatomy? Larryngoscope, Juni 171(6): 1102-6. doi: 10.1097/MIG.obb013e318042aef7. Won, JO, Guilleminault C, Koltai, P, quo, S, Stein, M, Loe, I (2017). It is just attention deficit hyperactivity disorder...or is It? J Dev Behav Pediatrics. 2017; 38(2): 169–172 doi:10.1097/08P.00000000000386. Yoon, AJ, Zghi S, Ha S, Law CS, Guilleminault C, Liu SY (2017). Ankyloglossia as a risk factor for maxillary hypoplasia and soft palate elongation: A functional – morphological study. Orthodontics & craniofacial research, 20 (4), 237-244. doi: 10.1111/ocr.12206.





## **Optimal Function for Infants**

- · Lips closed/nasal breathing @ birth Tongue up to roof of mouth (pull lips slightly apart to check during sleep)
- Upper lip can flange up for feedings (lift to cover both nostrils)
- Tongue can move side to side following input on gums
- Tongue can extend over lower lip
- Tongue elevates close to palate during crying
- Tongue cups around nipple for breast/bottle feeds

Jaw opens wide to latch and suck

Red Flags for Infants	Lips open/mouth breathing	Red FI for Too
	Difficulty with weight gain	
	Snoring	
	Cyclical nasal congestion	
	Lip blisters	
	Peaked or tented upper lip appearance	
	White coating on the tongue	
	Loss of milk at mouth corners/incomplete latch	
	Upper or lower lip curled in with latch	
	Lack of tongue cupping on nipple	
	Clicking sound during feeds	
	Maternal pain with feeds at breast	
	Lack of mouthing toys	
	High or narrow palate (anteiror bubble or channel like appearnce)	
	Head turn or tilt preference/flattened head shape	
	Difficulty calming and organzing	
	Fast/shallow/noisy breathing	
	Frequent spit ups/reflux symptoms	
	Disgestion issues including changes in stool consistency	

## **Optimal Function for Toddlers**

- · Lips closed nasal breathing
- Tongue up to roof of mouth (pull lips slightly apart to check during sleep)
- Tongue can elevate to roof of mouth with jaw open wide
- · Lips close on a spoon to assist in removing foods
- Tongue moves foods to chewing surfaces
- · Chews on back teeth bilaterally
- · Swallows foods without leaving residue behind on the tongue
- · Can swallow with tongue inside the mouth some of the time
- · Eats variety of food flavors, textures, consistencies, temperatures, & colors

## Lips open/Mouth breathing ags ddlers

Tongue visible at rest Persistent sucking habits Difficulty gaining or maintaining weight Snoring Persistent drooling when not teething Sleep difficulties including short duration or restless sleep Tooth grinding Cyclical nasal congestion/ear infections Diffiuclty transitioning to solids Extended bottle, pacifier, sippy cup reliance Difficulty chewing or swallowing Choking, gagging, or coughing with foods or liquids Picky eating High or narrow palate No spaces between teeth Frequently chapped lips Difficulty with focus, attention, or task completion Dark circles under the eyes

Long and skinny face shape

Recessed chin

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