FAIREST 6
Functional Airway Evaluation Screening Tool

Six Red Flags for:
Pediatric Sleep Disordered Breathing (SDB)

Reference: Determinants of Sleep-Disordered Breathing During the Mixed Dentition: Development of a Functional Airway Evaluation Screening Tool (FAirEST 6)

James Oh DDS, Soroush Zaghi MD, Cynthia Peterson PT, Clarice S Law DMD MS, Audrey J Yoon DDS MS

January 2021 - *figure credit: Chad Knutsen*

Each of these six (6) factors is an independent "red flag" for sleep-disordered breathing.

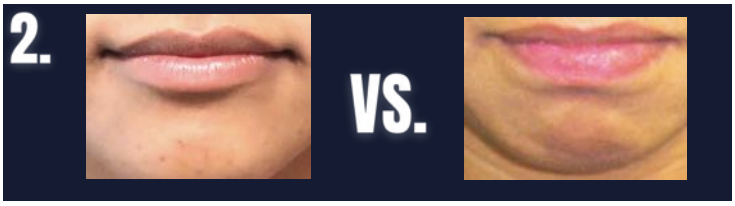
1.

Difficulty with exclusive nasal-breathing for 3+ minutes?

MOUTH BREATHING

☐ NO ☐ YES

2.

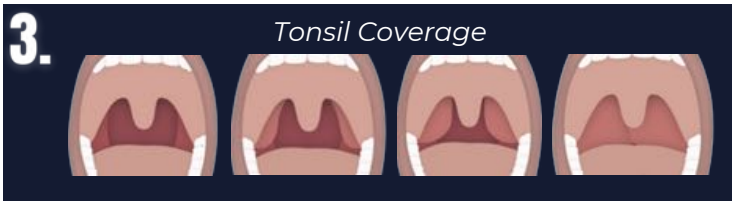


No Mentalis-Strain *Mentalis-Strain*

MENTALIS STRAIN

☐ NO ☐ YES

3.

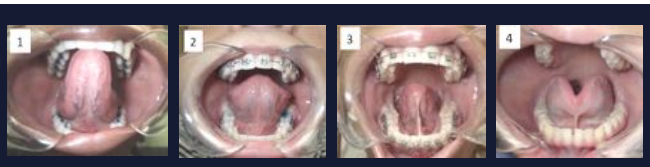


0-25% *25-50%* *51-75%* *76-100%*

TONSIL HYPERTROPHY

☐ <50% ☐ >50%

4.



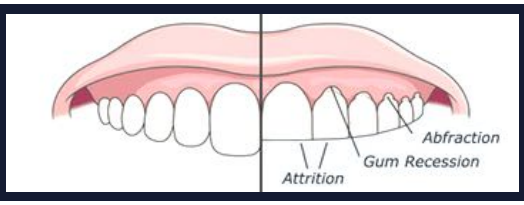
TRMR-TIP: *Tongue Range of Motion Ratio with Tongue to Incisive Papilla*

Grade 1	*Grade 2*	*Grade 3*	*Grade 4*
>80%	*50-80%*	*<50%*	*<25%*

ANKYLOGLOSSIA

☐ NOT RESTRICTED ☐ RESTRICTED (GRADE 3-4)

5.

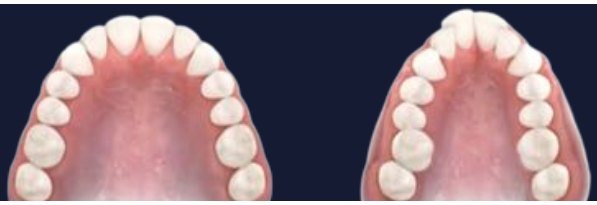


Are there visible signs of dental wear?

DENTAL WEAR

☐ NO ☐ YES

6.



Signs of dental crowding, high arch, and/or narrow palate?

NARROW PALATE

☐ NO ☐ YES

GRADING SCALE

The score on the FAIREST-6 is equal to the sum of the number of exam findings present. Scores may range from 0 (none of the items are present) to 6 (all six of the concerning exam findings are present).
A score of two corresponds to mildly increased risk of sleep-disturbance; four indicates moderately increased risk; six indicates severely increased risk.

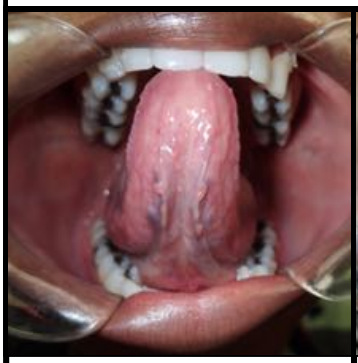
Scoring Table for FAirEST 6

Number of Red Flags	0	1	2	3	4	5	6
Risk of Sleep-Disturbance	Normal		Mild		Moderate		Severe

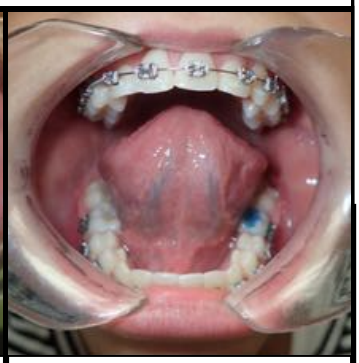
FUNCTIONAL CLASSIFICATION OF ANKYLOGLOSSIA : BASED ON TONGUE RANGE OF MOTION RATIO (TRMR)

TRMR-TIP

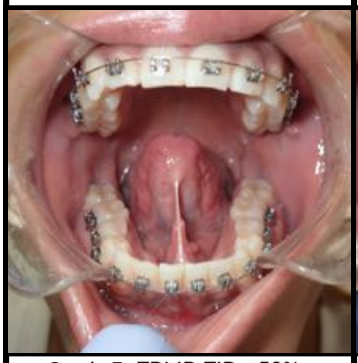
Assessment of:
Anterior Tongue Mobility
Tongue to Incisive Papilla (TIP)



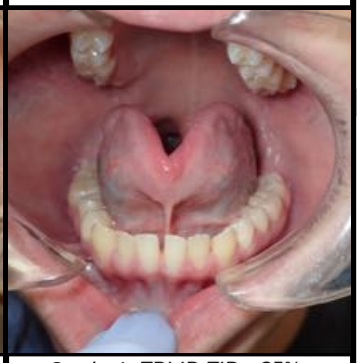
Grade 1: TRMR-TIP > 80%
Significantly Above Average



Grade 2: TRMR-TIP 50-80%
Average



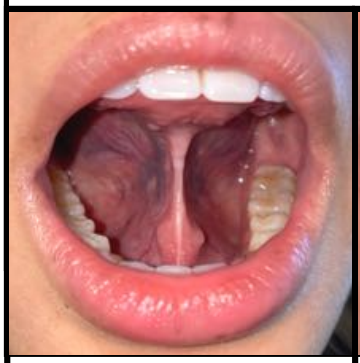
Grade 3: TRMR-TIP < 50%
Below Average



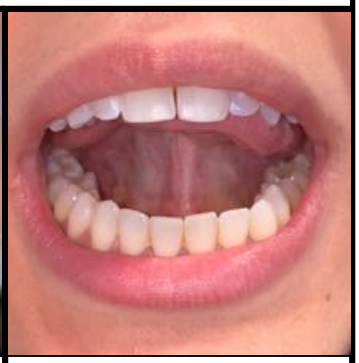
Grade 4: TRMR-TIP < 25%
Significantly Below Average

TRMR-LPS

Assessment of:
Posterior Tongue Mobility
Lingual Palatal Suction (LPS)

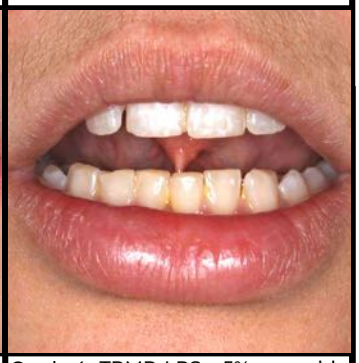


Grade 1: TRMR-LPS > 60%
Significantly Above Average



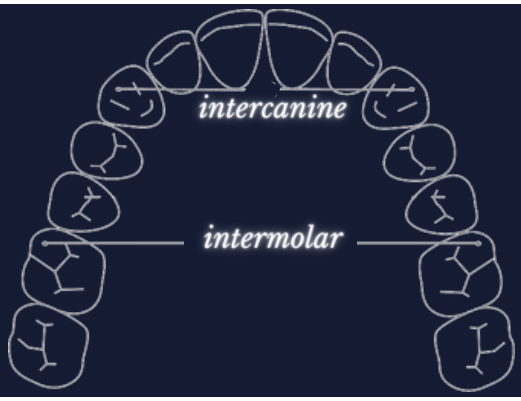
Grade 2: TRMR-LPS 30-60%
Average

Grade 3: TRMR-LPS < 30%
Below Average



Grade 4: TRMR-LPS < 5% or unable
Significantly Below Average

MEASURING INTERCANINE & INTERMOLAR DISTANCE



Maxillary Intercanine Distance

a. > 37 *mm* (Wide)
b. 31-37 *mm* (Neutral)
c. < 31 *mm* (Narrow)

Maxillary Intermolar Distance

(Mesiobuccal Cusps)

a. > 52 *mm* (Wide)
b. 46-52 *mm* (Neutral)
c. < 46 *mm* (Narrow)

REFERENCES

1. Assessment of Nasal Breathing Using Lip Taping: A Simple and Effective Screening Tool.
Authors: *Zaghi S, Peterson C, Shamtoob S, Brigitte Fung B, Kwok-Keung Ng D, Jagomagi T, Archambault N, O'Connor B, Winslow K, Peeran Z, Lano M, Murdock J, Valcu-Pinkerton S, Morrissey L.*

2. Determinants of Sleep-Disordered Breathing During the Mixed Dentition: Development of a Functional Airway Evaluation Screening Tool (Fairest 6).
Authors: *James Oh DDS, Soroush Zaghi MD, Cynthia Peterson PT, Clarice S Law DMD MS, Audrey J Yoon DDS MS.*

3. Determinants of probable sleep bruxism in a pediatric mixed dentition population: a multivariate analysis of mouth vs. nasal breathing, tongue mobility, and tonsil size.
Authors: *Oh J S, Zaghi S, Ghodousi N, Peterson C, Silva D, Lavigne G J, Yoon, A.*

4. Assessment of posterior tongue mobility using lingual-palatal suction: progress toward a functional definition of ankyloglossia.
Authors: *Zaghi S, Shamtoob S, Peterson C, Christianson L, Valcu-Pinkerton S, Peeran Z, Fung B, Kwok-Keung Ng D, Jagomagi T, Archambault N, O'Connor B, Winslow K, Lano M, Murdock J, Morrissey L, Yoon A.*

5. Ankyloglossia as a risk factor for maxillary hypoplasia and soft palate elongation: A functional - morphological study.
Authors: *A J Yoon, S Zaghi, S Ha, C S Law, C Guilleminault, S Y Liu.*

Zaghi MD

The Breathe Institute- Pediatric Intake and Screening Tool

Please answer Yes/No, or leave blank if unsure. Provide any additional information as desired.

1. When sleeping, does your child ever snore? ☐ YES ☐ NO _____
2. When sleeping, does our child ever appear to stop breathing? ☐ YES ☐ NO _____
3. When sleeping, does your child ever gasp or wake with a startle? ☐ YES ☐ NO _____
4. When sleeping, is your child's body ever in odd positions? ☐ YES ☐ NO _____
5. When sleeping, does your child have their head extended back? ☐ YES ☐ NO _____
6. When sleeping, does your child grind their teeth? ☐ YES ☐ NO _____
7. When sleeping, does your child sweat more than usual? ☐ YES ☐ NO _____
8. When sleeping, does your child breathe with their mouth open? ☐ YES ☐ NO _____
9. When sleeping, does your child leave drool on the pillow? ☐ YES ☐ NO _____
10. Does your child have difficulty getting to sleep? ☐ YES ☐ NO _____
11. Does your child difficulty staying asleep? ☐ YES ☐ NO _____
12. Does your child wake up then have trouble going back to sleep? ☐ YES ☐ NO _____
13. Does your child sleep lightly and are they easily roused? ☐ YES ☐ NO _____
14. Does your child wake up groggy and/or moody? ☐ YES ☐ NO _____
15. Does your child wake up with a head-ache? ☐ YES ☐ NO _____
16. Does your child appear lethargic or hyperactive during the day? ☐ YES ☐ NO _____
17. Does your child have nightmares? ☐ YES ☐ NO _____
18. Does your child sleep walk or talk? ☐ YES ☐ NO _____
19. Does your child wet the bed? ☐ YES ☐ NO _____
20. Does your child toss and turn while asleep? ☐ YES ☐ NO _____
21. Does your child have problems with anxiety or behavioral issues? ☐ YES ☐ NO _____
22. Does your child have fidgety legs? ☐ YES ☐ NO _____
23. Does your child wake up in a tangle of bedclothes or on the wrong side of the bed? ☐ YES ☐ NO _____
24. Does your child chew with mouth open/messy eater? ☐ YES ☐ NO _____
25. Does your child exhibit thumb sucking or chewing on foreign objects (pencil, nail hair)? ☐ YES ☐ NO _____
26. How many hours of sleep does your child get, on average, in a 24-hour period including naps? (Circle)

Less than 6 6-7 7-8 8-9 9-10 10-11 11-12 13-14 15-17

Less than 6

National Sleep Foundation Recommended Sleep Times

Toddlers (1-2 years)	11-14 hours
Preschoolers (3-5 years)	10-13 hours
School aged children (6-13 years)	9-11 hours
Teenagers (14-17 years)	8-9 hours

I have truthfully answered all of the above questions and agree to inform your practice of any changes in my child's medical history. In addition, I certify that I have custody and do authorize informed consent for the practice to perform a complete medical, dental, and/or myofunctional evaluation of the patient.

PARENT/ GUARDIAN NAME_____SIGNATURE_____DATE_____

(Adapted from Sharon Moore SSSRR Sleep History Screening ©2018)