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)

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

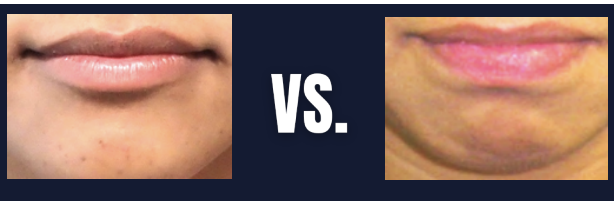
1.

Difficulty with exclusive nasal-breathing for 3+ minutes?

MOUTH BREATHING

☐ *NO* ☐ *YES*

2.

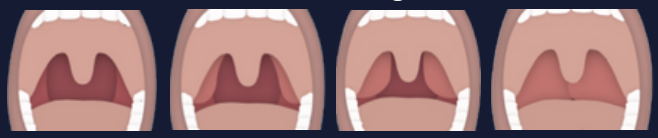


No Mentalis-Strain *Mentalis-Strain*

MENTALIS STRAIN

☐ *NO* ☐ *YES*

3.

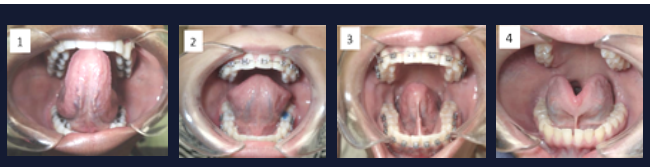


0-25% *25-50%* *51-75%* *76-100%*

TONSIL HYPERTROPHY

☐ *<50%* ☐ *>50%*

4.



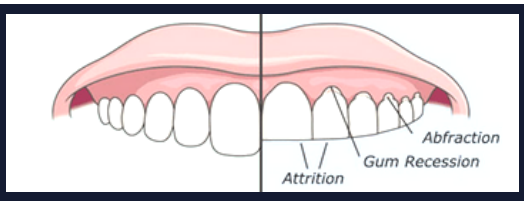
TRMR-TIP: *Tongue Range of Motion Ratio with Tongue to Incisive Papilla*

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

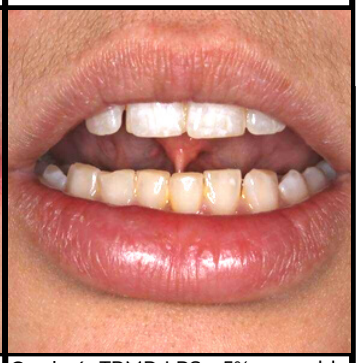
TRMR-LPS

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

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

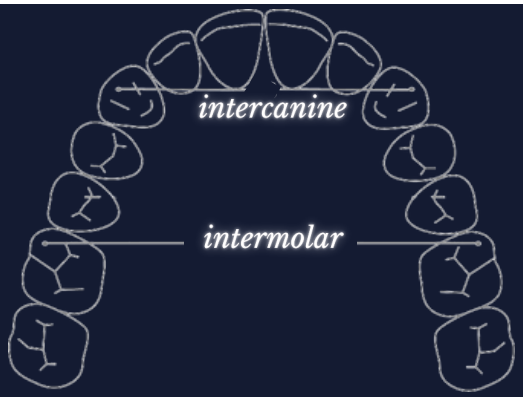
Grade 2: TRMR-LPS 30-60%
Average

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.