

Orofacial Myofunctional Examination - MBGR
Marchesan IQ, Berretin-Felix G, Genaro KF, Rehder MI

Name: _____

Examination date: ____ / ____ / ____ Age: ____ years and ____ months Date of birth: ____ / ____ / ____

1. BODY POSTURE *Observe the patient standing barefoot*
Head [flexion and extension = yes] [rotation = no] [inclination = maybe]

Frontal:	() normal	() R rotation	() L rotation	() R inclination	() L inclination
Lateral:	() normal	() anterior	() flexion	() extension	

Shoulders

Frontal:	() normal	() high R	() high L
Lateral:	() normal	() anterior rotation	

Comments: _____

2. FACE, MANDIBULAR MOVEMENT AND OCCLUSION MEASUREMENTS
Face (keep lips closed, take measurements with a caliper for three times and calculate average measurements)

	1st measure (mm)	2nd measure (mm)	3rd measure (mm)	Average (mm)
midface (<i>glabella to sub-nasal</i>)				
lower face (<i>sub-nasal to gnathion</i>)				
face height - H (<i>from glabella to gnathion</i>)				
face width - W (<i>prominence of zygomatic arches - this measure will be more accurate with the "spreading caliper"</i>)				
right outer eye corner to the right lip corner				
left outer eye corner to the left lip corner				
upper lip (<i>from sub-nasal point to the lowest point of upper lip</i>)				
lower lip (<i>from the upper point of lower lip to gnathion</i>)				

Mandibular movements and Occlusion (use copy-pencil and caliper. Take measurements for three times and calculate average measurements)

	1st measure (mm)	2nd measure (mm)	3rd measure (mm)	Average (mm)
right mandible laterality (<i>mark the dental midline of the superior arch on the inferior arch, move the jaw to the right and measure the distance between the mark and the superior midline</i>)				
left mandible laterality (<i>mark the dental midline of the superior arch on the inferior arch, move the jaw to the left and measure the distance between the mark and the superior midline</i>)				
overbite (<i>with teeth fully occluded, mark on the vestibular surface of the lower incisors the edge of the upper incisors. Measure the distance of that mark to the edge of the lower incisors. When there is open bite the result between the edges of upper and lower incisors will be negative</i>)				
overjet (<i>measure the distance between the surfaces of the upper and lower incisors in the horizontal plane</i>)				
maximum active interincisal distance – MAID (<i>from the central or lateral upper incisor to the central or lateral lower incisor with wide open mouth</i>)				
mouth opening (<i>maximum active interincisal distance + overbite</i>)				
MAID with the tip of the tongue touching the incisive papilla (MAIDTP)				
Calculate: $\frac{(\text{MAIDTP}) \times 100}{\text{MAID}}$				

3. EXTRAORAL EXAMINATION [] Sum scores from face, lips and masseter (best result = 0 / worst result = 28)

Face [] Sum scores from frontal and lateral norm (best result = 0 / worst result = 15)

Observe the patient standing and without shoes

Frontal Norm (numerical facial analysis) [] Sum scores (best result = 0 / worst result = 3)

Facial type			
Compare height (H) with width (W):	(0) medium (H similar to W)	(1) long (H > W)	(1) short (W > H)
Facial proportions			
Compare middle third with lower third:	(0) similar	(1) larger lower third	(1) smaller lower third
Compare the distance between R outer eye corners to R lip corner and L outer eye corners to L lip corner:	(0) similar	(1) asymmetrical	

Frontal Norm (perceptual facial analysis) [] Sum scores (best result = 0 / worst result = 10)

	Symmetric	Asymmetrical	Description
Infraorbital plane	(0)	(1)	
Zygomatic region	(0)	(1)	
Nostrils	(0)	(1)	
Cheeks	(0)	(1)	
Philtrum	(0)	(1)	
Upper lips	(0)	(1)	
Lip corners	(0)	(1)	
Lower lips	(0)	(1)	
Mentum	(0)	(1)	
Mandible	(0)	(1)	

Lateral Norm (perceptual facial analysis) [] Sum scores (best result = 0 / worst result = 2)

Facial Pattern:	(0) Pattern I (straight)	(1) Pattern II (convex)	(1) Pattern III (concave)
Nasolabial angle:	(0) around 90° - 110	(1) acute (<90°)	(1) obtuse (>110°)

Comments: _____

Lips [] Sum scores (best result = 0 / worst = 11)

Habitual posture:	(0) closed (2) half-open	(1) closed with tension (2) closed with teeth contact	(2) sometimes open, sometimes closed (3) open
Form - Upper	(0) normal (1st cupid's bow)	(1) gull wing (1st and 2nd cupid's bow)	
- Lower	(0) normal	(1) discrete eversion	(2) stressed eversion
Upper length:	(0) covers 2/3 of incisors	(1) covers more than 2/3	(1) covers less than 2/3
External mucosa:	(0) normal	(1) with saliva	(1) dry (2) injured

Comments: _____

Masseter [] (Best result = 0 / worst = 2) Evaluate through observation and touch:

Rest	(0) relaxed	(1) contraction (teeth pressure)
Recruitment in isometric contraction:	(0) simultaneous	(1) R side first (1) L side first

Comments: _____

4. INTRAORAL EXAMINATION [] Sum scores from lips, tongue, cheeks, palate, tonsils, teeth and occlusion (Best result = 0 / worst result = 58)

Lips [] Sum scores (best result = 0 / worst result = 5)

Internal mucosa:	(0) normal	(1) with teeth marks	(2) injured
Superior frenulum:	Attachment on alveolar ridge: (0) adequate	(1) low	
	Thickness: (0) adequate	(1) altered (describe): _____	

Comments: _____

Tongue [] Sum scores (best result = 0 / worst result = 17)

Habitual posture:	☐ not visible	(1) on mouth floor	(1) low tip and high back	(1) protrudes between the teeth:
Symmetry:	(0) yes	(1) no (describe): _____		
Width:	(0) adequate	(1) reduced	(2) increased	
High:	(0) adequate	(1) increased		
Mucosa:	(0) adequate	(1) geographic	(1) fissured	(2) injured (place): _____
	(1) with teeth marks (place): _____		(1) with braces marks (place): _____	
Frenulum:	Extension: (0) adequate	(1) long	(1) short	
	Tongue fixation: (0) in the middle	(1) between the middle and the apex	(2) at the apex	
	Fixation on the floor of the mouth:	(0) between the sublingual caruncles	(1) on alveolar crest	
	Other characteristics:	(0) none	(1) posterior	(1) thick (1) fibrotic

Comments: _____



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Cheeks [] Sum scores (best result = 0 / worst result = 8)

Mucosa: (0) normal	(1) R dental marks/braces (1) L dental marks/braces	(1) R white line (1) L white line	(2) R injured (2) L injured
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Comments: _____

Palate [] Sum scores (best result = 0 / worst result = 8)

Hard:	Depth: (0) adequate Width: (0) adequate	(1) reduced (shallow) (1) increased (wide)	(2) increased (deep) (2) reduced (narrow)
Velum:	Symmetry: (0) present Extension: (0) adequate	(1) absent (1) long	(2) short
Uvula:	(0) adequate (1) altered (<i>describe</i>): _____		

Comments: _____

Tonsils [] Sum scores (best result = 0 / worst result = 4)

Presence:	☐ present	☐ removed	☐ not visible
Size:	(0) adequate	(1) R hypertrophy (1) L hypertrophy	
Color:	(0) adequate	(1) R hyperemia (1) L hyperemia	

Comments: _____

Mallampati Test (Samsoon e Young 1987)

Classification:	() Class I (<i>full visibility of tonsils, uvula and soft palate</i>)	() Class II (<i>visibility of hard and soft palate upper portion of tonsils and uvula</i>)
	() Class III (<i>soft and hard palate and base of the uvula are visible</i>)	() Class IV (<i>only hard palate visible</i>)

Teeth [] Sum scores (best result = 0 / worst result = 5)

Dentition:	☐ deciduous	☐ mixed	☐ permanent
Number of teeth:	R upper _____ L upper _____	R lower _____ L lower _____	
Missing teeth:	(0) absent	(1) present (<i>missing elements</i>): _____	
Oral health:	Teeth: (0) good Gum: (0) good	(1) regular (1) regular	(2) bad (2) bad
Dental prosthesis:	☐ no	☐ removable	☐ fixed ☐ partial denture ☐ denture

Comments: _____

Occlusion [] Sum scores (best result = 0 / worst result = 11)

Midline:	(0) adequate	(1) deviated to R	(1) deviated to L		
Angle's classification:	R side L side	(0) Class I (0) Class I	(1) Class II 1st div. (1) Class II 1st div.	(1) Class II 2nd div. (1) Class II 2nd div.	(1) Class III (1) Class III
Disocclusion Guide:	(0) present	(1) absent R	(1) absent L		
Horizontal relationship:	(0) adequate (<i>Overjet between 1 and 3mm</i>)	(1) bite on top (<i>Overjet = 0mm</i>)	(1) overjet (<i>Overjet >3mm</i>)	(1) anterior crossbite (<i>Overjet <0mm</i>)	
Vertical relationship:	(0) adequate (<i>overbite between 1 e 3mm</i>) (1) bite on top = 0mm	(1) overbite >3mm (1) anterior open bite <0mm		(1) posterior R open bite (1) posterior L open bite	
Transversal relationship:	(0) adequate	(1) posterior R crossbite	(1) posterior L crossbite		
Use of device:	☐ no	☐ removable	☐ braces		

Comments: _____

5. MOBILITY [] Sum scores from lips, tongue, velum and jaw (best result = 0 / worst result = 49)

Lips [] Sum scores (best result = 0 / worst result = 16) *Perform with occlusion of the teeth

	Adequate	Inadequate	Does not perform
Protract closed *	(0)	(1)	(2)
Retract closed *	(0)	(1)	(2)
Protract open *	(0)	(1)	(2)
Retract open *	(0)	(1)	(2)
Protract closed to the R*	(0)	(1)	(2)
Protract closed to the L*	(0)	(1)	(2)
Pop protracted	(0)	(1)	(2)
Pop retracted	(0)	(1)	(2)

Comments: _____

Tongue [] Sum scores (best result = 0 / worst result = 16)

	Adequate	Inadequate	Does not perform
Protrude and retract	(0)	(1)	(2)
Touch R/L commissures and upper/lower lips sequentially	(0)	(1)	(2)
Touch incisive papilla	(0)	(1)	(2)
Touch R cheek	(0)	(1)	(2)
Touch L cheek	(0)	(1)	(2)
Click tip	(0)	(1)	(2)
Suck tongue on palate	(0)	(1)	(2)
Vibrate	(0)	(1)	(2)

Comments: _____

Velum [] Sum scores (best result = 0 / worst result = 4)

	Adequate	Reduced movement	Absent movement
Say "a" repeatedly	(0) R (0) L	(1) R (1) L	(2) R (2) L

Comments: _____

Mandible [] Sum scores (best result = 0 / worst result = 13)

	Adequate	Reduced	Increased	Does not perform	With deviation	With noise	With pain
Mouth opening	(0)	(1)	(1)	(2)	(1) R (1) L	(1)	(1)
<i>Expected scores: child = 35 to 50mm / adult = 40 to 55mm</i>							
Mouth closure	(0)	-	-	-	(1) R (1) L	(1)	(1)
R Laterality	(0)	(1)	(1)	(2)	-	(1)	(1)
L Laterality	(0)	(1)	(1)	(2)	-	(1)	(1)
<i>Expected scores: child (6 a 12 years old) = 6 a 10mm / adult = 8 a 12mm</i>							

Comments: _____

6. PAIN WITH PALPATION [] Sum scores (best result = 0 / worst result = 10)

	Absent		Present	
Anterior temporal	(0) R	(0) L	(1) R	(1) L
Superficial masseter	(0) R	(0) L	(1) R	(1) L
Trapezius	(0) R	(0) L	(1) R	(1) L
Sternocleidomastoid	(0) R	(0) L	(1) R	(1) L
TMJ	(0) R	(0) L	(1) R	(1) L

Comments: _____

7. TONE [] Sum scores (best result = 0 / worst result = 6) Observe and touch to evaluate:

	Normal	Reduced	Increased
Upper lip	(0)	(1)	(1)
Lower lip	(0)	(1)	(1)
Mentum	(0)	(1)	(1)
Tongue	(0)	(1)	(1)
Right cheek	(0)	(1)	(1)
Left cheek	(0)	(1)	(1)

Comments: _____

8. OROFACIAL FUNCTIONS [] Sum scores from breathing, chewing, swallowing and speech (best result = 0 / worst result = 98)

Breathing [] Sum scores (best result = 0 / worst result = 5)
When altered, the origin is [] functional [] structural [] other _____

Type: (0) medium-lower	(1) medium-high	(1) other (describe): _____
Mode: (0) nasal	(1) oronasal	(2) oral
Nose breathing only: (0) 2 minutes or more	(1) between 1 and 2 minutes	(2) less than 1 minute

Comments: _____

Therapeutic test

Nasal flux (use mirror)	Before blowing:	() similar between nostrils	() slightly asymmetric	() severely asymmetric
	After blowing in order to clean:	() similar between nostrils	() slightly asymmetric	() severely asymmetric

Comments: _____

Chewing [] Sum scores (best result = 0 / worst result = 10) When altered, the origin is [] functional [] structural [] TMD [] other _____

Habitual chewing (always use the same food)

Incision:	(0) anterior	(1) lateral	(1) other _____
Pulverization:	(0) posterior teeth	(1) anterior teeth	(1) with help of tongue
	(0) efficient	(1) inefficient	
Number of cycles: (use video)	right: 1 st portion: _____	2 nd portion: _____	3 rd portion: _____
	left: 1 st portion: _____	2 nd portion: _____	3 rd portion: _____
	total: 1 st portion: _____	2 nd portion: _____	3 rd portion: _____
Chewing pattern:	(0) bilateral alternate	(1) bilateral simultaneous	
	(0) unilateral preferential: _____	(2) chronic unilateral: _____	
Lip closure:	(0) systematic	(1) unsystematic	(2) absent
Speed:	(0) adequate	(1) increased	(1) reduced
Noisy chewing:	(0) no	(1) yes	
Unexpected muscle contractions:	(0) absent	(1) present (describe): _____	
Duration of chewing (use portions of standard size and the same food)	1 st portion: _____ seconds	2 nd portion: _____ seconds	3 rd portion: _____ seconds
			Average: _____ seconds

Comments: _____

Ask the patient:

Preferred side of chewing:	☐ right and left	☐ right	☐ left	☐ does not know
Pain when chewing:	☐ no	☐ right	☐ left	
TMJ noise:	☐ no	☐ right	☐ left	

Comments: _____

Swallowing [] Sum scores (best result = 0 / worst result = 39) When altered, the origin is [] functional [] structural [] other _____

Habitual swallowing (solid) [] Sum scores (best result = 0 / worst result = 15)

Lip posture:	(0) closed	(1) partially closed	(1) inferior lip touching upper teeth	(2) open
Tongue posture:	☐ not seen	(0) behind teeth	(1) against teeth	(2) between teeth
Food escapes:	(0) no	(1) partial	(2) yes	
Orbicular contraction:	(0) adequate	(1) slight	(2) severe	
Mentum contraction:	(0) absent	(1) slight	(2) severe	
Head movement:	(0) absent	(1) present		
Noise:	(0) absent	(1) present		
Coordination:	(0) adequate	(1) chokes	(1) coughs	
Residue after swallowing:	(0) absent	(1) present		

Comments: _____

Habitual deglutition (liquid - water) [] Sum scores (best result = 0 / worst result = 11)

Tongue posture: ☐ not seen	(0) behind teeth	(1) against teeth	(2) interdental
Liquid containment: (0) adequate	(1) inadequate		
Liquid volume: (0) satisfactory	(1) increased	(1) reduced	
Mentum contraction: (0) absent	(1) slight	(2) severe	
Head movement: (0) absent	(1) present		
Noise: (0) absent	(1) present		
Rhythm: (0) sequential	(1) sip by sip		
Coordination: (0) adequate	(1) chokes	(1) coughs	

Comments: _____

Directed deglutition (liquid - water) [] Sum scores (best result = 0 / worst result = 13)
Put water in the mouth and swallow only upon request of the evaluator

Lip posture: (0) closed	(1) partially closed	(1) lower lip touching upper teeth	(2) open
Tongue posture: (0) behind teeth	(1) against teeth	(2) interdental	
Liquid containment: (0) adequate	(1) partial	(1) inadequate	
Orbicular contraction: (0) adequate	(1) slight	(2) severe	
Mentum contraction: (0) absent	(1) slight	(2) severe	
Head movement: (0) absent	(1) present		
Noise: (0) absent	(1) present		
Coordination: (0) adequate	(1) chokes	(1) coughs	

Comments: _____

Ask the patient

Swallowing difficulty: ☐ no	☐ yes (describe) _____		
Tongue position: ☐ behind upper teeth	☐ behind lower teeth	☐ interdental	☐ patient does not know

Comments: _____

Speech [] Sum scores from the five tests (best result = 0 / worst result = 44)

When altered, the origin is [] phonetic [] phonetic/phonological [] phonological
In case of phonetic origin, this is: [] functional [] structural [] TMD [] neuromuscular [] other _____

Spontaneous speech [] Sum scores (best result = 0 / worst result = 6)

Ask the following questions: "tell me your name and age"
"tell me what you do (study, work)"
"tell me about a trip you enjoyed"

Omission: (0) absent	(1) unsystematic	(2) systematic	phone: _____
Substitution: (0) absent	(1) unsystematic	(2) systematic	phone: _____
Acoustic distortion: (0) absent	(1) unsystematic	(2) systematic	phone: _____

Automatic speech [] Sum scores (best result = 0 / worst result = 6)

Count from 1 to 20; weekdays and months of the year

Omission: (0) absent	(1) unsystematic	(2) systematic	phone: _____
Substitution: (0) absent	(1) unsystematic	(2) systematic	phone: _____
Acoustic distortion: (0) absent	(1) unsystematic	(2) systematic	phone: _____

Picture naming [] Sum scores (best result = 0 / worst result = 6)

Use the pictures from the table

Omission: (0) absent	(1) unsystematic	(2) systematic	phone: _____
Substitution: (0) absent	(1) unsystematic	(2) systematic	phone: _____
Acoustic distortion: (0) absent	(1) unsystematic	(2) systematic	phone: _____

In case of distortion, that is related to the following tongue aspects:

[] anterior interdental [] lateral interdental [] absence or slight vibration of tip [] multiple vibration of tip
[] elevation of dorsum [] lowering of dorsum [] other: _____



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Motor coordination of speech [] Sum scores (best result = 0 / worst result = 8)

Request fast and repeated emission of syllables and trisyllabic sequence for 10 seconds each.

	Speed		Rhythm	
	Adequate	Inadequate	Adequate	Inadequate
[pa]	(0)	(1)	(0)	(1)
[ta]	(0)	(1)	(0)	(1)
[ka]	(0)	(1)	(0)	(1)
[pataka]	(0)	(1)	(0)	(1)

Comments: _____

General aspects [] Sum scores (best result = 0 / worst result = 18)

Saliva: (0) patient swallows	(1) accumulates in the R/L commissures	(1) accumulates in the lower lip
	(2) splashes	(3) slobbers
Mouth opening: (0) normal	(1) reduced	(1) increased
Tongue position: (0) adequate	(1) on the floor	(2) anterior (2) posterior (2) low tip and high sides
Lip movement: (0) adequate	(1) reduced	(1) exaggerated
Mandible movement: (0) adequate trajectory	(1) right deviation	(1) left deviation (1) anterior
Resonance: (0) oronasal balance	(1) reduced use of nose	(1) excessive use of nose (1) laryngopharyngeal
Articulatory precision: (0) adequate	(1) unsystematic imprecision	(2) systematic imprecision
Speed: (0) normal	(1) increased	(1) reduced
Coordination between breathing:	(0) adequate	(1) altered

In case of imprecision, it is related to:

[] tone [] oronasal breathing [] malocclusion [] use of dental prosthesis [] speech rate
 [] hearing [] use of medication [] amount of saliva [] reduced mouth opening
 [] neurological disorder [] muscle fatigue [] anxiety/depression [] other: _____

Comments: _____

Therapeutic test (syllable repetition) Request syllables repetition that contain the phone with alteration, using the vowel "e".

This test is used to observe if when the pattern is provided, the production of the altered phone is modified

Tested phone	Production does not change	Production improves	Production becomes adequate

Comments: _____

Voice Request sustained emission of vowel "a"

Pitch: () adequate	() high	() low
Loudness: () adequate	() loud	() soft
Voice type: () adequate	() altered	

DOCUMENTATION

Suggested Photos

Body		
- front:	() Yes	() No
- right side:	() Yes	() No
Face		
- front: - rest:	() Yes	() No
- smile:	() Yes	() No
- right side:	() Yes	() No
Lower Third		
- front:	() Yes	() No
- right side:	() Yes	() No
Oral Cavity		
- superior arch:	() Yes	() No
- inferior arch:	() Yes	() No
Occlusion:		
- anterior:	() Yes	() No
- right side:	() Yes	() No
- left side:	() Yes	() No
Tongue:		
	() Yes	() No
Lingual frenulum (with open mouth, elevating apex without touching any place):		
	() Yes	() No

Others: _____

Suggested Video

Mobility:	Chewing:	Swallowing:	Speech:
() Yes () No	() Yes () No	() Yes () No	() Yes () No

Summary of the Orofacial Myofunctional Examination - MBGR

Marchesan IQ, Berretin-Felix G, Genaro KF, Rehder MI

Name: _____ number: _____ Examination date: ____ / ____ / ____

Initial Examination Scores	Re-evaluations	
	(____ / ____ / ____)	(____ / ____ / ____)
[] EXTRAORAL EXAMINATION (best result = 0 / worst = 28)	[]	[]
[] Face (best result = 0 / worst = 15)	[]	[]
[] Lips (best result = 0 / worst = 11)	[]	[]
[] Masseter (best result = 0 / worst = 2)	[]	[]
[] INTRAORAL EXAMINATION (best result = 0 / worst = 58)	[]	[]
[] Lips (best result = 0 / worst = 5)	[]	[]
[] Tongue (best result = 0 / worst = 17)	[]	[]
[] Cheeks (best result = 0 / worst = 8)	[]	[]
[] Palate (best result = 0 / worst = 8)	[]	[]
[] Tonsils (best result = 0 / worst = 4)	[]	[]
[] Teeth (best result = 0 / worst = 5)	[]	[]
[] Occlusion (best result = 0 / worst = 11)	[]	[]
[] MOBILITY (best result = 0 / worst = 49)	[]	[]
[] Lips (best result = 0 / worst = 16)	[]	[]
[] Tongue (best result = 0 / worst = 16)	[]	[]
[] Soft palate (best result = 0 / worst = 4)	[]	[]
[] Mandible (best result = 0 / worst = 13)	[]	[]
[] PAIN WITH PALPATION (best result = 0 / worst = 10)	[]	[]
[] TONE (best result = 0 / worst = 6)	[]	[]
[] Lips (upper + lower) (best result = 0 / worst = 2)	[]	[]
[] Mentum (best result = 0 / worst = 1)	[]	[]
[] Tongue (best result = 0 / worst = 1)	[]	[]
[] Cheeks (R+L) (best result = 0 / worst = 2)	[]	[]
[] OROFACIAL FUNCTIONS (best result = 0 / worst = 98)	[]	[]
[] Breathing (best result = 0 / worst = 5)	[]	[]
[] Chewing (best result = 0 / worst = 10)	[]	[]
[] Swallowing (best result = 0 / worst = 39)	[]	[]
[] Speech (best result = 0 / worst = 44)	[]	[]

Data from other health professionals: _____

Requested examinations: _____

Other alterations: _____

Possible Diagnosis: _____

Prognosis: _____

Therapy plan: _____

Referrals to other professionals: _____

Directions: _____

Responsible speech language-pathologist: _____

Professional's registration number: _____