Are there any specific guidelines for identifying whether the hard palate is high-vaulted?

Dr. Mason’s response: When I was a university professor in speech pathology, I taught the clinical perspective that the wider the maxillary posterior dental arch the flatter and lower the palatal vault, while the narrower the upper dental arch, the higher the hard palatal vault. Also, the narrower the posterior maxillary dental arch, the more often a posterior dental crossbite will be found.

In orofacial examinations, there is a “Rule of Thumb” that can be used in assessing the hard palate. The recommended procedure is as follows: The patient is instructed to put his/her thumb up into the palatal vault. It is best to guide the patient’s thumb into the mouth and up against the palate since most children will barely insert the thumb into the mouth when instructed to do so. After placing the thumb correctly, ask the patient to close the lips around the thumb. Then, gently rock the thumb from side to side so the patient can feel if the thumb “fits”. Finally, instruct the patient to keep the thumb in place and to open his/her mouth slightly so that you can visually inspect the thumb against the hard palate.

The patient’s thumb will fit comfortably in the hard palatal vault if the vault is normal in height and width. If there is not enough room and the thumb becomes “squeezed” when inserted in the hard palate vault, the palatal vault will most likely be high and narrow.

Using a patient's own thumb is the preferred method since patients' thumbs are a better size for their mouths than adult thumbs. As patients grow, so will their thumbs. Using your own thumb would require wearing a glove. It is also very difficult for the examiner to place his/her own thumb, with nail down, into the palatal vault when positioned in front of the patient.

Although the "Rule of Thumb" is a good tool to use to determine if the patient has a high, narrow palate, the finding of a high vaulted hard palate has a greater significance and the finding should serve a larger purpose. A high, narrow hard palatal vault should be considered by OMTs as a "red flag" to check for a dental crossbite, especially a posterior crossbite. If a crossbite is identified, a referral to a dentist is needed. Any crossbite that is identified may signal a possible need for maxillary dental arch expansion. With experience, you will be able to subjectively determine whether a palatal vault is narrow and heightened just by looking at a patient's hard palate. You will also become proficient at identifying dental crossbites. These skills will become ingrained habits in clinical observations and will serve you well.

I remind clinicians that the hard palate grows and expands according to the V-principle of growth; that is, the hard palate expands like an upside-down V when viewing it from the oral cavity. As the V widens, the midline flattens in response to the amount of expansion and

Continue reading this article on page three
Question to Dr. Mason about old, outdated studies

“I have heard the claim made that “old” studies should be dismissed because of their age and because “old” and “out of date” technology was used in the studies. This doesn’t sound right to me. I would appreciate your opinion. Thank you.”

Dr. Mason’s Response: Thank you for asking about this rather misguided claim. Those who would make such a claim should respond to the following questions:

Would anyone recommend stopping the use of the vaccine for polio developed by Jonas Salk because he did the research that resulted in the vaccine more than 50 years ago? Or, should we stop using antibiotics because they were developed many years ago? Of course not.

A claim of studies being old and outdated presumes that there is a “life-span” for the value of a research publication. What criteria would one use to determine when a study or technology has become too “old” and “out of date”? Is it five years, ten years, 20 years, or more?

What credentials should a person have to qualify as the arbiter of when a study is outdated and when the findings need to be dismissed? I suspect that those who would make such a claim have not read the classic studies that have defined the many characteristics of OMDs and do not adequately understand the technology involved. I also suspect that those who would claim that old studies are outdated have not conducted and published any research of their own and lack experience in performing and interpreting clinical research. The intent here is not to confront individuals who have made such a claim, but instead, to evaluate the truth of any claims made.

What about the variety of “technology” used in orofacial myofunctional therapy today that was developed 40 to 50 years ago? Although the research value of the Payne Black Light technique was questioned and dismissed early-on, many clinicians continue to find value in the Payne technique as an educational and motivational tool in therapy. The “button-pull” exercise and the lip force scale used to measure lip resistance/lip strength are both clinical tools that were also developed during this time period. Consistent with the claim that old studies and technology should be discarded, should these old but still useful clinical technologies be discarded simply because they were developed 50 or so years ago?

The oral pressure-transducer technology developed by world-famous physiologist and orthodontist Dr. William Proffit and colleagues elucidated many of the facts underlying the discipline of orofacial myology. The series of studies that utilized this creative technology were subjected to stringent peer-review in convention presentations, in editorial reviews prior to publication, and by a committee of the National Institute for Dental Research, National Institutes of Health, that provided funding for the research projects. Peer-review provided opportunities for the technology and study findings to be challenged. The studies and technology passed all stringent reviews by dental and speech scientists.

Oral pressure-transducers have more recently been applied to the study of factors controlling dental eruption. Should this application of pressure-transducers also be dismissed because of the time-frame of its original development?

Surface electromyography (EMG) was employed in my doctoral study in speech science in 1964 (before most of you were born!) Brazilian speech pathologists continue to use this technology to study and quantify many applications of orofacial myofunctional therapy. Should we stop reading such research reports because the development of the technology preceeds the year of birth for all of you?

Lateral cephalometric x-ray films have been the key tool used to document the growth cycles for tonsils and adenoids, the lips, and the relationships between tongue posture and surrounding morphology in patients with OMDs. Should the findings from such studies be dismissed due to the age of the original technology? What explanation is given when the technology used in classic studies continues to be used today in other applications?

Instead of questioning the procedures and conclusions of studies applicable to OMDs according to the age of publication, the efforts of orofacial myologists would be better spent designing and implementing studies of the many presumed clinical truths that remain undocumented about OMDs and their treatment. The need for clinical research with OMDs is a major deficiency and challenge facing the discipline of orofacial myology in achieving the goal of wider recognition and acceptance.

On this website under the heading of Dr. Bob’s Clinical Pearls are two documents that address the dearth of clinical research with OMDs by USA orofacial myologists. One is: “Gathering Clinical Research Data in Orofacial Myology” and the other article is: “Suggested Clinical Research Projects in Orofacial Myology”. Also on the website under the heading Myo-Research is an article titled: "Information, Perspectives and Aspirations for New I.A.O.M. Members and Those Seeking Certification". I hope that all orofacial myologists will become conversant regarding the tenets of the field discussed in the article and also detailed in the many publications listed in the reference section.

Those who would rather criticize the research contributed by dental scientists and others according to the age of studies done or technology used rather than replicating the studies or conducting other much-needed research, are not contributing positively to the growth of the field. The original studies that constitute the tenets for the field of orofacial myology deserve our respect, appreciation and full understanding rather than being subjected to ill-conceived criticisms.

Dr. Bob
Robert M. Mason, DMD, PhD
Speech-Language Pathologist and Craniofacial Orthodontist

Speech-Language Pathology Continuing Education and Treatment Resources

Northern Speech Services
Earn CEU’s at Home
Across
1. lymphoid tissue located between the anterior and posterior pillars (two words)
3. the "skeleton of the tongue" (two words)
5. part of the pharynx located between the velum and the hyoid bone
9. the nostrils
10. space between the anterior pillars and the opening to the pharynx (two words)
12. the "radiators" of the nose
14. a major facial muscle that compresses the cheek and assists with chewing
15. a partition or DIVIDING wall
17. muscle that raises and protrudes the lower lip

Down
2. the most complex facial muscle that encircles the lips (two words)
4. the upper jaw
6. thick, powerful muscles that lift the mandible vertically
7. the soft palate
8. a wrinkle, fold or ridge located on the hard palate
9. part of the pharynx located above the velum
10. a fold of skin beneath the tongue or between the lip and the gingiviva
11. the lower jaw
13. this MUSCLE must function well to create a good linguopalatal seal
15. indentations found on the lateral borders of the tongue
16. a vertical depression below the nasal septum and ABOVE the vermillion line

Orofacial Myology Anatomy Criss Cross Puzzle

Continue reading from page one:
...becomes more U shaped. The factors that shape hard palatal expansion and growth are controlled from events and structures from above the hard palate rather than from tongue "molding" functions within the oral cavity. (For more details, please review Myth #7 in the article "Myths that Persist About Orofacial Myology" found in the IJOM, November, 2011, and at OrofacialMyology.com/INFO, under the heading Myo-Research).

The key consideration in dentistry is how maxillary dental arch width relates to the lower dentition; that is, is there a posterior or anterior crossbite? Many orofacial myologists attach more importance to the height and shape of the vault of the hard palate rather than to the width of the maxillary dental arch. Since the height and shape of the hard palatal vault are of no consequence on their own, the finding of a high narrow palatal vault, when accompanied by a dental crossbite, can create bite alignment problems. Thus, identifying dental crossbites is an important part of OMT examinations.

No matter the height or width of the midline of the hard palate, most individuals are able to adapt in speech, swallowing and rest posture because the tongue is very adaptable to oral variations.

Dr. Bob
Robert M. Mason, DMD, PhD
Speech-Language Pathologist and Craniofacial Orthodontist
Simple Beef Tongue  “Myo-Recipes... Time to Lick your Lips”

Ingredients
- 1 beef tongue
- water
- salt or soy sauce or coconut aminos (for AIP or GAPS who can't have soy sauce)

Instructions
- Wash beef tongue. Some instructions say to soak in cold water, but I've never actually done this. Feel free to try, although there isn't any weird taste to draw out or anything.
- Put in pot, you'll have to curl it, and cover with water.
- Bring to boil, then turn down to barely a simmer. Cook for two hours per kilo (one hour per pound) with the lid on. You can also cook it in the slow cooker, but mine is currently broken, so I can't tell you for how long.
- When the tongue has finished cooking, drain the water and let it rest until it's cool enough to handle.
- With the help of a knife, peel the rough outer skin off the tongue. Some will come off easily, other parts will have to be cut with the knife.
- If there are any tendons left on the underside of the tongue, cut those off (mine was without).
- Chill in the fridge until cold (I forgot to time this...a couple of hours?)
- Slice crossways and sprinkle with (unrefined) salt or soy sauce (no soy sauce for AIP, paleo, GAPS, etc)
- Serve on bread (or bread substitute), cut fry-shaped for sushi or spring rolls, diced into salads, etc.

You can find this recipe at http://www.almostbananas.net/beef-tongue-spread-2-recipes/
Orofacial Myology: From Basics to Habituation ("Myo Manual")

The “Myo Manual” is the culmination of the Author’s experience of over 35 years of treating and studying oral myofunctional disorders and “tongue thrust.” It includes proficiency exams and observation sheets to establish baselines, a CD for subconscious training, sample evaluation and oral examination forms, Night Time Chart, 3 Time Charts and Appendix Section with additional forms.

All three Phases of therapy are covered: Pre Treatment Conditioning, Chew-Swallow Mechanics, and Integration into Lifestyle.

Dozens of exercises and activities are provided for every small step along the way from “basics to habitation” as the title implies.

The Myo Manual is a must for every speech pathologist, dental hygienist and dentist who wants to provide a Systematic, Sequential, and Sensible treatment program for oral myofunctional disorders of all types.

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Cecelia Cienska
SLP

My path to the course on Orofacial Myology may be a little different to others, but at the root of it was the same desire that has brought so many of us to Sandra and Becky. I needed a way to pull together all the bits and pieces I was learning as I honed my skills in articulation therapy and I needed it in English. I am a speech-language pathologist working in the Elementary school of the American School of Warsaw, Poland. The school has students from all over the world and for well over 80% of our students, English is not their first language, but it is their academic language. As far as I know, I am the only Native English speaking speech-language pathologist in Warsaw, and probably in Poland. If I can't help these students with their oral muscular and articulation problems they don't have anywhere else to go.

In graduate school at the University of Toronto, in Canada, I had learned that every speech assessment starts with a thorough oral motor exam to check for muscular weakness and physical abnormalities. It made sense to me that a child had to be able to move muscles correctly and with enough strength, in order to be able to articulate sounds clearly. What I didn't know was what to do with the results – if a child showed muscular weakness how did one target that specifically and link it to articulation therapy.

Luckily when I began work in Poland after a long hiatus, I knew I needed to update my skills. I read Pamela Marshall’s books and they made so much sense. At an ASHA conference, I heard Sara Rosenfeld-Johnson speaking about oral motor therapy techniques and was nodding my head in agreement. But my “ahh” moment came courtesy of my daughter. She had just started orthodontic treatment and instead of correcting her bite, it had gotten dramatically worse. The Polish orthodontist, Dr. Joanna Mrowiec, suggested that I take my daughter to this Polish speech-language therapist, with whom she was collaborating, for an assessment of her tongue functioning. I didn’t dare let on that I was an SLP. Sitting quietly at my daughter’s assessment, which was being done in Polish, I watched and listened to this woman and it all made so much sense. I confessed – I was a speech-language pathologist too. This was the beginning of a great mentorship. Agnieszka Borowiec came to my school and consulted with me on some of my more difficult students. On my holidays, I shadowed her for a week in her practice. I took her course on oral facial muscular functioning and its impact in speech, dentistry and orthodontics. We talked about tongue tie, tongue thrust, the tongue moving independently of the jaw, the different muscular zones of the tongue. I began collaboration with Dr. Mrowiec on her English-speaking patients. The only problem was- it was all in Polish and I am not fluent in Polish.

My search for information in English on orofacial myology quickly led me to Sandra Holtzman. She convinced me not just to buy the Myo-Manual, but to take the course. So in November, I travelled from grey, Poland to sunny Florida for my intensive initiation to orofacial myology in English. Everyday I use something from the course in my practice. Agnieszka, Joanna and I continue to collaborate and my goal is to become the first certified orofacial myologist in Poland.