



Oral Myofacial Therapy—A Breakthrough Technique to Treat Symptoms Relating to Breathing Problems, TMJ, Headaches and Other Common Ailments

Story at-a-glance

- ▶ Orofacial myofunctional therapy (OMT) is a profound technique that may be effective in managing symptoms and providing solutions associated with mild to moderate sleep apnea, poor digestion, headaches, TMJD (Temporal Mandibular Joint Dysfunction), periodontal disease and many other common ailments
- ▶ In recent years, OMT has been even applied to the field of esthetics, with scientific support and methodology from Brazil, by retraining the muscles of the face.
- ▶ The technique is based on the neuromuscular re-education or re-patterning of the oral and facial muscles, and includes facial exercises and behavior modification techniques to promote proper tongue position, improved breathing, chewing and swallowing. Proper functional head and neck postures are also addressed

By Dr. Mercola

Orofacial myofunctional therapy is a profoundly useful treatment that may help treat the symptoms of a wide variety of health issues, from opening airways to headaches, temporomandibular joint disorders (TMJ), to poor digestion, just to name a few. It may be *the* most profound therapy available for the treatment of mild to moderate sleep apnea, which is a pervasive problem that affects many.

Myofunctional therapy is the "neuromuscular re-education or re-patterning of the oral and facial muscles¹."

The therapy includes facial and tongue exercises and behavior modification techniques to promote proper tongue position, improved breathing, chewing, and swallowing. Proper head and neck postures are also addressed. There are good studies to substantiate that it may resolve jaw problems and orthodontic relapse working in a multi-disciplinary team.

It may also be an alternative or adjunctive treatment to facial plastic surgery, to help get rid of lines and saggy facial muscles, which is exciting. In fact, in Brazil, some myofunctional therapists work with plastic surgeons.

Joy Moeller, whom I had the good fortune of meeting as a result of an earlier interview with Carol Vander-Stoep (author of the book *Mouth Matters*), is a leading expert in this form of therapy in the US.

At the end of that interview with Carol, we discussed the issue of being "tongue tied," and she happened to look into my mouth. A large population of Americans are estimated to have health problems related to poor orofacial function, and the vast majority have no idea their problems stem from the dysfunction of their mouth (primarily the tongue), breathing habit, and forward head and neck muscle function. Turns out I was one of them.

As a result, I got on a treatment plan with Joy, who is the premier expert on myofunctional therapy in the US. We've been doing regular Skype sessions for about the last six months, and not only am I making great progress in resolving my tongue tie, it's had a profoundly beneficial effect on my posture and amount of deep sleep as well.

Of course, adult problems associated with tongue-tie are best prevented in infancy beginning with ensuring the normal duration of breastfeeding. However, tongue-tie often goes undetected by OBGYNs and pediatricians who, having been educated in a bottle-feeding culture, fail to connect the related breastfeeding issues. When feeding issues are present, such as recurring maternal pain, thrush or mastitis, poor latch, inefficient emptying of the breast, poor infant growth, reflux, sensory issues, poor gut function and poor sleep, it is best to immediately contact an IBCLC (International Board Certified Lactation Consultant) who can do an assessment and direct you to resources for proper revision (using laser or scissors) and supportive structural therapy.

Orofacial Myofunctional Therapy Gaining Popularity

In Brazil, a country that has really embraced this therapy and applies it in a number of medical fields, there are more than 20 universities doing PhD level research in orofacial myofunctional therapy. In the US, it's currently a post-graduate course. Fortunately, it is gaining in popularity, and according to Joy, this year there will be a big push to get more dental hygienists, speech pathologists, and physical therapists to adopt the technique. Stanford School of Medicine has just come out with compelling research this year.

In addition to teaching with the Academy of Orofacial Myofunctional Therapy (AOMT) and practicing for nearly 35 years, Joy has authored 15 articles, a children's book called *Tucker the Tongue Finds His Spot*, and is currently writing chapters for two textbooks. Joy encountered myofunctional therapy 35 years ago, as a result of tirelessly seeking to resolve the many health problems her young son was experiencing. At the time, she was a dental hygienist, and the dentist she worked with had taken a course in the field.

"My son had many problems. He was born through a breech birth. He had severe colic as a baby. He couldn't latch on. He was bottle-fed and had a pacifier and a sippy cup," she says. "By the time he was three, he had severe ADHD, and he couldn't breathe easily. He was breathing through his mouth. He had failure to thrive. He wasn't chewing his food properly. Everything had to be liquid or soft in order for him to eat it. By the time he was seven or eight, he had severe headaches. His headaches were so bad that he couldn't go to school."

She sought help from numerous doctors, from psychologists, neurologists, to vision therapists. One doctor even suggested brain surgery. Fortunately, her dentist employer finally asked to have a look at the boy and discovered his tongue placement was incorrect.

"So, we started doing these exercises," she says. "Within three weeks, his headaches stopped completely. "

How Does Myofunctional Therapy 'Work'?

Myofunctional therapy doesn't just address your oral cavity and tongue—it addresses all the facial muscles; the head and neck. It teaches you to breathe through your nose and rest your tongue against the roof of your mouth. You also exercise all your facial muscles, and work on functional posturing and chewing.

"You have to look at function, the way the body functions," Joy says. "If you're not chewing your food enough, your body is working overtime to try to digest it. It's having the ability for the muscles to support the [oral] arches. I see so many people that have had orthodontics, after which their teeth move. They feel it's their fault, because they didn't wear their retainers. However, it is because the muscles are not retaining that [position], because the muscles have not adapted to the structure."

If we can do more preventive work at a younger age to prevent the problem or the disorder (because it is a disorder even from the start), then we're ahead of the game."

Chewing is very important, but most people don't chew their food enough. This may lead to poor digestion, poor nutritional uptake, and other related health problems. When you chew adequately food is not only physically broken down, thus increasing its surface area, it chemically augments the enzymatic activity of salivary amylase to partially digest starch. This enzyme works to pre-digest the food, and signal your stomach that food is "on the way." There's a very specific reflex that goes from your jaw, down into your stomach and digestive tract, which stimulates the secretion of digestive enzymes. Unless

you're chewing, you're not going to have optimum enzymatic power to break apart your food and metabolize it properly.

According to Joy:

"There is this condition called failure to thrive in which the child finds it difficult to chew comfortably. Our kids just stop growing like they should. Dr. Karl Nishimura, a DDS from Orange County, California states that if the tongue is not going up to the roof of the mouth when a person swallows; the sphenoid bone does not rotate properly and growth hormones are not being released from the pituitary gland. The whole pumping action of your tongue going up to the roof of your mouth during swallowing (500-1000 times a day), may help to expand the nasal cavity and also stimulate the sphenoid bone to rotate and secrete hormones from the pituitary gland."

The pituitary gland is the master hormone gland. It secretes many different hormones that are critical for your optimal health. A major focus of myofunctional therapy is exercises that train your tongue to spontaneously rest on the roof of your mouth. Many mistakenly believe that the tongue is a muscle, but it's actually an organ, which has very strong muscles in it. It contains one of the strongest working groups of muscles in your body. The job of the tongue is to protect the airway, encourage normal forward facial growth when postured correctly in the roof of the mouth, aid speech, and move food around when chewing.

If your tongue is restricted due to a lingual frenulum (the string underneath your tongue being too tight) you'll have a hard time moving food into the molar area where chewing is concentrated, and consequently you will not be able to chew it properly. The tongue is also connected to the hyoid bone which is in your neck, so if your tongue is not functioning properly, it may lead to forward-head posturing. In this position your tongue is resting down and forward, and it's just enough to pull your entire head forward, thus throwing you out of balance.

Many Have a Disorder That May Benefit from Myofunctional Therapy

A large percentage of people have some type of oral-facial disorder that would benefit from myofunctional therapy. The reason for such high numbers is because so many people have been exposed to situations that prevent their tongues from functioning correctly and naturally. Such items include:

- Mouth breathing
- Tongue tie
- Thumb and/or Digit / non-nutritive sucking habits

- Processed foods (even baby foods)
- Baby bottles
- Sippy cups
- Pacifiers

According to researchers from Albert Einstein University, when a child mouth breathes this in turn may lead to learning disabilities and behavior problems due to lack of oxygen to your brain. Mouth breathing also promotes allergies and other common ailments. Once your tongue doesn't function properly, it may also affect your oral posture and your ability to breathe correctly as it may cause your airway to collapse. More importantly, mouth breathing encourages a low tongue posture

"Everybody is going to the gym now, working out, lifting weights, but they forget about their face muscles," Joy says. "Your face and tongue muscles are so important, because they influence your ability to speak, chew, swallow, and breathe correctly. It's so critical."

Why You Should Consider a Myofunctional Therapist

The initial myofunctional therapy evaluation is extensive, starting with an in-depth look at habits, such as: Is the cat sleeping with you? What temperature do you keep your bedroom at during sleep? Do you consume dairy products? Seemingly innocent factors such as these can cause one to mouth breathe. Experiencing frequent nosebleeds, colds, or wearing ill fitting glasses that slip down your nose can also "teach" you to breathe through your mouth rather than your nose.

This initial evaluation is very important in order to devise an effective treatment protocol. There are hundreds of exercises, and each individual is unique. It's a grave mistake to think that you can just do a few basic exercises from a book for a few weeks and be done. In order to really repattern all the muscles involved, you need to do it slowly, over time, to reprogram your muscle memory.

"You really need somebody to support you over time in order for it to hold. Otherwise, just like everything else, in two years, it'll relapse. We have to look at everything," Joy says.

So, we will not be posting a series of simple exercises to solve your problems. Rather, I would urge you to find a trained therapist who can customize the exercises based on your specific anatomy, and enter into a long-term coaching relationship. I hired Joy to work with me for a full year. As explained by Joy:

"Each person is like a snowflake, they're different. There are different parts to the therapy. We have to sequentially activate the orofacial muscles. The first part is just for all the muscles working to get the lips to stay together. We activate the masseter muscles in a symmetrical pattern and develop nasal breathing as primary by developing a lip seal and a palatal tongue rest position... I use some of the Buteyko breathing exercises as well. The Buteyko Breathing Method is a powerful set of health-care guidelines and methodology for reversing over-breathing or hyperventilation. I incorporate the breathing exercises into my therapy.

The second part is actually chewing (being able to masticate and manipulate the food in the correct place), and swallowing, where your tongue is going up and back rather than down and forward. In order to habituate this even in our sleep, we must swallow correctly.

We can then work more aggressively on functional posturing. If someone is sitting with a forward upward tilted head, it's virtually impossible to swallow comfortably. A forward head posture causes an alteration in the swallowing mechanism due to muscle tension. We can correct the actual functional posturing, give you exercises, and make you aware of where your tongue is at all times. Pretty soon, correct tongue posture becomes a habit. It becomes a different function that your body adapts to.

Another one of our goals is to get your lips closed all the time, except when you're speaking or eating. Your nose's primary function is inhaling oxygen, followed by filtering air, warming, and moisturizing it, and also killing micro-organisms with the natural production of nitric oxide. There's also an enzyme that's excreted by the little hairs in your nose that actually has an anti-allergy effect on the body. Actually, it's healthier to breathe through your nose on every level because your body gets more usable oxygen thus maintaining a more normal carbon dioxide level which is better."

Many Health Professionals are Starting to See the Benefits of Myofunctional Therapy

Orofacial myofunctional therapy can be used in a number of areas to address a wide range of problems. It's an obvious fit for speech pathologists, for example. If your tongue is restricted, or if you're swallowing down and forward, you're going to talk with the "S" lisp. If the sides of your tongue are not activated, you're going to sound a bit like Donald Duck when pronouncing words like "sucker" or "succotash." This happens because the sides of your tongue are too lax. By tightening, toning, and re-patterning the muscles of

your tongue, it will enhance some speech disorders. Physical therapists are also learning about its benefits.

"In the last class that we did, we had three physical therapists who were so excited because they had TMJ problems themselves, and they've worked for over 20 years in TMJ treatment for jaw problems," she says. "They knew that there was something with the tongue, but they didn't know how to fix it. They're starting to get involved in it now."

Dental hygienists are another obvious "fit" for myofunctional therapy, as mouth-breathing is one major cause of dental diseases. According to Joy, who has a background as a dental hygienist, it's one of the *major* causes of periodontal disease, malocclusion and decay. The bacteria in your mouth need air to live, so when mouth breathing, or just resting with your mouth open; you're supplying them with much-needed oxygen. This makes them stronger and more virulent, and the plaque and biofilms they form is much thicker. Also, if a person is mouth breathing, the tongue drops down and the arches may collapse, leading to crooked teeth.

Might Myofunctional Therapy Benefit You?

Some of the risk factors indicating you might be able to benefit from this approach include those on the following list (please note this is not an all-inclusive listing). Interestingly, if you consume a high-sugar diet, the myofunctional therapy treatment is *not* going to be as effective because of your ability to focus and have strong muscles. So, if you decide to enter into a coaching relationship with an myofunctional therapist, please be sure to pay careful attention to your diet as well, as this could have a huge impact on your results.

Orthodontic Relapse
Bottle Feeding
Developmental delays, such as low muscle tone
Long Face syndrome
Speech problems
Allergies
Frequent headaches

TMJ problems
Thumb sucking
Bloating due to air swallowing
Food texture sensitivities
Neck pain
Nail or lip biting or other oral habits
Frequent choking, gagging or trouble swallowing
Mild to Moderate Sleep Apnea
Snoring

Simple Techniques to Try Right Now

While I highly recommend working with a trained myofunctional therapy professional, there are some simple techniques you can do without seeing anyone. One of the most important ones is to simply sleep on your back, as this helps your posture and helps open up your airway so you can breathe better. If you have sleep apnea or GERD, just raise the headboard of your bed the size of a brick so that your tongue does not drop into your airway. Also sugar is refined and people do not have to chew to break down the food. Unrefined foods must be chewed more and therefore the muscles are working. Another one is to *stop* touching your face, and instead remember to keep your tongue firmly placed against the roof of your mouth.

"People have a tendency to do like the thinker, leaning, just touching and playing with their hair, biting their lips, and all these little habits. They don't realize what they're doing is they're trying to get that remembered endorphin feeling, as in thumb sucking because it feels good to touch your hair or your face. When you exhibit these habits, you affect your posture and put pressure on your jaw or face and distract the muscle function."

As explained earlier, if your tongue is functioning in the right place, the result will help maintain proper development of the arches, thus encouraging the teeth to line up correctly and enhance the ability to breathe properly. You want your tongue to rest behind the first ridge on the roof of your mouth. All those ridges on the roof of your mouth is the

natural resting place of your tongue. Some people have very sharp ridges as a result of it not resting there.

"If your tongue is resting in between your teeth, or against your teeth, or when you swallow it's pushing or it's resting down in the floor of your mouth, it may prevent your jaw joints from functioning normally.," Joy explains.

"A lot of people have this TMD pain and headaches that radiate from the TMJ. They may have had a splint or some kind of an appliance fitted. Sometimes this treatment may help, and sometimes it doesn't because of the associated patterning of muscles. According to Oral Pain Management Specialists, at least 90 percent of TMJ problems are related to the muscles (not working right), because of habits or because of swallowing disorders."

Grinding and clenching your teeth is another sign you may need to retrain your orofacial muscles. Grinding is often related to some form of sleep disorder. It's an upper airway obstruction that the body attempts to move the jaws in order to open the airway because things aren't functioning properly. To get all your oral-facial and neck muscles working correctly can make a huge difference. It will also change the way your face looks, as it actually may change the facial structure. Your skull bones may shift in a slow, comfortable manner.

"Everybody thinks, 'Oh, your face is your face.' But you know, I see a lot of people that have these long-face syndromes from sleeping on their sides or stomach, mouth-breathing, and resting their tongue in the wrong place. You change that and there are little cells called osteoblasts and osteoclasts. They break down and build up, break down and build up, and within a very short time – months – the whole shape of their face changes."

How to Find a Myofunctional Therapist

The Academy of Orofacial Myofunctional Therapy (AOMT) has developed a website where you will be able to find both training schedules for professionals seeking education, and a listing of qualified practitioners worldwide. The name of the site is www.myoacademy.com. In the meantime, you can also review Joy's personal website, www.myofunctional-therapy.com.

Fortunately, you don't necessarily need to find a practitioner in your local area, as nowadays the therapy sessions can be done via Skype, using the video feature. We do all our sessions via Skype privately. In the US, there are as many as a few hundred practitioners. However, stay clear of anyone who is just going to give you a page from a book. That doesn't work. Make sure the therapist you select is going to give you a thorough evaluation and customize the exercises to your needs. Joy recommends

looking for someone with a health background who has taken a continuing education course in Myofunctional Therapy, such as:

- Speech pathologist
- Dentist, orthodontist, or dental hygienist
- Sleep medicine doctor
- Physical and/or occupational therapist
- Pulmonologist

There is also a great group of people who are interested in finding help with airway problems that traditional care may leave unanswered. The American Association of Physiological Medicine & Dentistry (AAPMD) is a multidisciplinary group formed to build a bridge between physicians, dentists, other health care practitioners and the public to provide integrated care for children and adults.

Life is a journey, and I'm constantly learning new information. Here, at the age of nearly 60, I finally found out about myofunctional therapy, and it's making a major health difference for me. I'm deeply grateful for all that Joy has taught me, and for her persistence and dedication over these last three and a half decades to help increase the awareness of this profoundly effective approach.

Ultimately, you can have the best health, you can eat an absolutely perfect diet, or you can have the perfect exercise plan, but if you're not sleeping, breathing and chewing well, it's physically impossible to be optimally healthy. Fortunately, it's never too late. No matter what your age, you can retrain your oral-facial and neck muscles to help you achieve better sleep and proper breathing and digestion.