

FUNCTIONAL DISORDERS: Temporomandibular Joint Pain and Shallow Breathing

TEMPOROMANDIBULAR JOINT PAIN

What causes temporomandibular joint (TMJ) pain?

The temporomandibular joints connect the jawbone to the skull, and they are two of the most complicated joints in the human body. They can open and close the jaw like a hinge, and allow the jaw to slide from side to side and forward and backward.

Temporomandibular joint (TMJ) pain often occurs along with dysfunctional muscular patterns and chronic muscle tension resulting from stress. The dysfunctional patterns and muscle tension causing the jaw pain are generally not limited to the jaw. Many people with TMJ pain have habitual patterns of muscular tension and pain in their neck, shoulders, chest, back, and abdominals. TMJ pain is most likely related to withdrawal response (Red Light) posture, but can also occur with arched or side-bending posture.

The most common causes of TMJ pain are:

- Stress and the resulting muscle tension
- Injury to the area
- Arthritis of the temporomandibular joint
- The articular disc of the temporomandibular joint degenerating or moving out of alignment

Clinical Somatics exercises can help to resolve TMJ pain caused by the above factors. Be aware that jaw pain can also be related to dental problems, sinus infections, and other medical issues, so discuss these possibilities with your student if needed.

TMJ pain may be experienced along with:

- Headaches
- Misaligned bite
- Clenching or grinding the teeth (bruxism)
- Ringing in the ears (tinnitus)
- Clicking, popping, or locking of the temporomandibular joint

How to work with TMJ pain

To help your student resolve their TMJ pain, you should:

1. **Teach them exercises that address their entire pattern of tension, especially the tension in their core and upper body that is related to stress.** Releasing all of their muscular tension will allow them to keep their jaw muscles relaxed and reduce their overall stress level.
2. **Help them build awareness.** Encourage them to become aware of where they hold their tension and when they tend to tighten their jaw, neck, and shoulders. Suggest that they check in with themselves every 5 to 10 minutes throughout the day, notice if they're clenching their jaw or holding their shoulders tight, and take a deep breath and release all of that unnecessary tension. Tell them to try to keep their jaw relaxed and their teeth slightly apart all the time. If they clench or grind their teeth while sleeping, a dental guard may be helpful.
3. **Encourage them to break bad habits.** People with TJM issues sometimes pop or crack their jaw habitually without even noticing it, which can aggravate the joint. Chewing gum frequently can make the jaw muscles tight as well. Encourage your student to become aware of any habits they have that might be contributing to their jaw pain, and to stop the habit or substitute with a non-damaging habit.
4. **Encourage them to take steps to reduce their stress.** This may include making changes in their schedule, making time for self-care, improving sleep routines, talking to a therapist, or confronting issues in their life.

Below are the exercises that address the pattern of tension most common in people with TMJ: tight abdominal, shoulder, neck, jaw, and facial muscles. But as always, teach your student any and all exercises that address their unique patterns of tension. The Jaw Exercises will probably give your student the most immediate relief from their pain, but it is important to teach them movements that address their entire pattern.

Arch & Flatten
Back Lift
Arch & Curl
Flowering Arch & Curl
Head Lifts
Scapula Scoops Part 1
Scapula Scoops Part 2
Diagonal Curl
Face & Jaw Exercises
Breathing Exercises

SHALLOW BREATHING

What causes shallow breathing?

The most common physiological issue associated with shallow breathing is a heightened level of stress due to constant activation of the stress response. Stress causes us to breathe shallowly, and if we experience stress on a regular basis, our shallow breathing becomes habitual. We continue to breathe shallowly whether or not we're experiencing stress, and the shallow breathing itself actually activates our stress response.

Withdrawal response posture (rounded posture or Red Light posture) is the most common postural pattern associated with shallow breathing. However, people with arched or side-bending posture may also experience it depending on their stress level or unique patterns of muscle tension.

Shallow breathing is associated with anxiety disorders, panic attacks, hyperventilation, shock, asthma, pneumonia, pulmonary edema, and a buildup of carbon dioxide in the body known as hypercapnia. Releasing chronic muscle tension and retraining your student to breathe diaphragmatically can help to alleviate symptoms of these conditions.

Another reason people tend toward shallow breathing is the desire to not stick their belly out and appear overweight. The idea that we should suck in our stomach is so ingrained that it affects our breathing without us being aware of it. Many people have unnecessary tension in their abdominal muscles as a result of holding their stomach in so often, and this tension prevents them from taking full breaths.

Teaching your student about diaphragmatic breathing

The diaphragm is an umbrella-shaped muscle located just below the lungs. In diaphragmatic breathing, we contract the diaphragm, pushing its center downward and inverting its umbrella shape as we inhale. This action draws air into our lungs and makes our belly expand. Then as we release our diaphragm, the muscle relaxes upward and expels the air out of our lungs.

Diaphragmatic breathing occurs naturally in all mammals when they are in a state of relaxation; this type of breathing is known as eupnea and requires no conscious effort. When we become stressed for any reason we instinctively shift to shallow breathing. This type of breathing consists of drawing air into the lungs using the intercostal muscles (the muscles in between each rib) instead of the diaphragm. As a result, in shallow breathing the chest expands instead of the belly.

We can train ourselves to breathe diaphragmatically most of the time. It just takes practice, like any muscular skill. The more often you practice diaphragmatic breathing, the more habitual it will become, and the more relaxed you'll feel.

You can talk your student through a simple diaphragmatic breathing exercise like this:

Close your eyes. Completely relax. Visualize your diaphragm inside you, just below your lungs. As you inhale through your nose, visualize the air going down to your lungs, and your diaphragm pushing downward. Be aware of your belly expanding at the same time. Then slowly let your diaphragm relax upward, as you slowly exhale.

Now try this while slowly counting to five as you inhale, then slowly counting to five as you exhale.

Now, slowly count to ten as you inhale, then slowly count to ten as you exhale.

The more often you consciously practice diaphragmatic breathing, the more aware you will become of how you're breathing. Soon, you'll notice when you're breathing shallowly because it will feel wrong, and you'll instinctively slow yourself down and return to diaphragmatic breathing.

An added benefit of slow, controlled diaphragmatic breathing is that it pandiculates the diaphragm. Consciously inhaling and then very slowly exhaling pandiculates the muscle just like we do with all other muscles in Clinical Somatics exercises. So by practicing diaphragmatic breathing (with a very slow, controlled release) on a regular basis, your student can release chronic tension in their diaphragm, and their breathing will become easier and more relaxed.

Working with shallow breathing

If your student tends to breathe shallowly, you should:

1. Teach them exercises to release their abdominals and pectorals (listed below).
2. Teach them to retrain their rounded posture, if applicable.
3. Teach them to practice diaphragmatic breathing.
4. Encourage them to find ways to reduce their stress, if applicable.

The best exercises to relieve shallow breathing are:

Arch & Flatten
Arch & Curl
One-sided Arch & Curl
Iliopsoas Release
Diagonal Arch & Curl
Flowering Arch & Curl
Proprioceptive Exercise 1
Head Lifts
Scapula Scoops Part 2 (first part: hugging and releasing the beach ball)
Diagonal Curl
Breathing Exercises