Self-Help Video #6 Part 3:

Exercises for Tongue and Mindful Eating

<https://youtu.be/NEoCcL0Q8MM>

(begin at 1:00 minute to Bypass Medical Disclaimer)

Vocalization exercises (beginning Video #7) will include these body parts: throat, tongue, mouth, jaw, lips, soft palate, and nasal cavity.

Incorporate the facial muscle exercises. The polyvagal theory of Dr. Stephen Porges: a face-heart connection evolved with a facial and vocal social engagement system that enables social interactions to regulate the human visceral state.

[www.polyvagalinstitute.org](http://www.polyvagalinstitute.org)

If tension develops: Stop and repeat the Integrated Progressive Relaxation and Deep Breathing and other body techniques until throat, neck and shoulder tension is resolved. Start vocal training again.

Slow, Easy, Relaxed, 4-8 breath pattern is the best way to grow new neural pathways. The tongue and laryngeal muscles perform miracles of muscle co-operation with rapid alternation between respiration, speech, swallowing, and upper airway protection. The tongue also provides for the “taste” of our food, one of our “five head senses.”

<https://journals.physiology.org/doi/full/10.1152/japplphysiol.00670.2013>

<https://www.kenhub.com/en/library/anatomy/tongue>

Ancient forms of medicine in China and India: the tongue is body microcosm. Modern science: The tongue is connected to the gut brain, heart brain, and head brain, reflected in the tongue’s health, including emotional health. Its communication passes back and forth between right and left hemisphere of brain, affects the “emotional” tone of speech, slows down or increases the heart beat, is impacted by lung and breath volume, and affects posture, balance, and upright stance.

<https://www.geisinger.org/health-and-wellness/wellness-articles/2018/01/15/16/38/what-is-your-tongue-trying-to-tell-you>

<https://www.forbes.com/sites/nicolefisher/2015/11/02/is-your-tongue-the-key-to-a-neuroscience-breakthrough/amp/>

<https://www.scientificamerican.com/article/tongue-shocks-hasten-healing/>

<https://www.cureus.com/articles/16486-the-anatomical-relationships-of-the-tongue-with-the-body-system>

<https://www.colgate.com/en-us/oral-health/mouth-and-teeth-anatomy/the-hypoglossal-nerve-the-brain-behind-the-tongue>

The tongue is a “muscular hydrostat” without a skeletal support. It is filled with fluid, changing shape and size by contracting, expanding, lengthening, shortening. Its fluid cannot be compressed; any change in any section results in a corresponding change in another section. It never loses volume. This flexibility allows the human to be a “language-speaking animal.”

<https://en.wikipedia.org/wiki/Muscular_hydrostat>

Change the shape of the tongue to resolve tension, inhaling 4-count with the tensing actions, exhaling for 8-count, relaxing and sighing as tongue returns to mouth. Stick tongue out as far as you can. Touch nose with tongue. Touch your chin with tongue.

<https://www.hopkinsmedicine.org/health/treatment-tests-and-therapies/swallowing-exercises-how-to-do-tonguestrengthening-exercises>

<https://www.teacherspayteachers.com/Product/MIRROR-MIRROR-ON-THE-WALL-TONGUE-EXERCISES-FOR-ALL-Speech-Therapy-759552>

<https://1specialplace.com/2020/07/03/oro-motor-exercises-for-kids/>

The larynx is a “muscular hydrostat.”

The only bony structure is the free-floating hyoid bone.

The vocalization system is controlled by the midbrain and brainstem, cortex, cerebellum, and basal ganglia.

<https://pubmed.ncbi.nlm.nih.gov/20056338/>

The laryngeal muscles control the vocal folds: opening for inspiration, closing for airway protection during swallow, rapid opening and closing to build up pressure for coughing to clear the airways. Speech and singing require rapid opening and closing of the vocal folds with precise regulation of length and tension to control the frequency of vibration and vocal intensity in coordination with expiratory airflow.

<https://www.youtube.com/watch?v=Q97tPOlIUkk>

<https://www.youtube.com/watch?v=BtAsuUOpedI>

<https://www.youtube.com/watch?v=r6pxta6WVZM>

Exercise: combine the functions of the tongue and throat with a Mindful Eating exercise to increase awareness of breathing and swallowing. Place a raisin on your tongue. Pay attention to the pattern of your breath and how it changes. Notice saliva. Feel the raisin on your tongue and move it around without chewing. Feel its weight, temperature, size, texture and explore all the sensations of the raisin being in your mouth. Bite gently into the raisin. Very slowly chew the raisin. Notice the taste on the taste buds. Notice how the tongue moves the raisin around the teeth and how the jaw joins into the sensations. Notice the change in the consistency of the raisin and the impulse to swallow and the muscles engaged in that action. Sense the food moving down your throat, into your esophagus. Be aware of the change in breathing pattern as you shifted from breathing to swallowing. Be aware of changes in emotions and feelings. <https://livingwell.org.au/mindfulness-exercises-3/3-eating-mindfulness/>