



Management of oropharyngeal dysphagia. Physiotherapy and Speech-language therapy

This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

INDEED: “Innovative tools for diets oriented to education and health improvement in dysphagia condition”

Project N: 2020-1-ES01-KA204-083288



Co-funded by the
Erasmus+ Programme
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Goals of the lesson

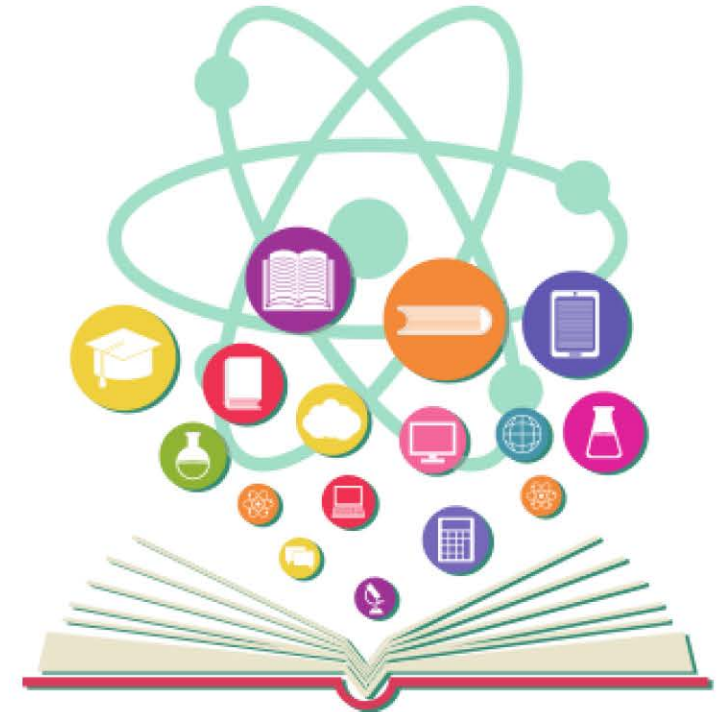
The aim of this lesson is to learn safe swallowing procedures that can be used to improve dysphagia treatment by speeding up the recovery of swallowing function and reducing hazards.



Source: designed by Canva Pro

Learning outcomes

- To understand patients' use of safe and alternate techniques to maintain eating and drinking functions.
- To recognize the benefits of these techniques in the treatment of dysphagia
- To learn swallowing exercises that may help to improve and/or maintain swallowing functions.



Source: designed by Canva Pro

Ice Breaker

**What Song
Describes Your
Life**

What song describes
your life right now?

Safe swallowing techniques

Food, fluids, and saliva must be transported from the mouth through the throat and into the stomach in a timely and coordinated manner.

When someone has a swallowing problem (dysphagia), it runs the risk of food, water, and saliva getting into the lungs (aspiration).

It's possible that the person is completely unaware of what's going on (silent aspiration).

Aspiration can lead to pneumonia, which is hazardous.

Choking is also a possibility for people suffering from dysphagia.



There are some ways for keeping patient safe while eating and drinking:

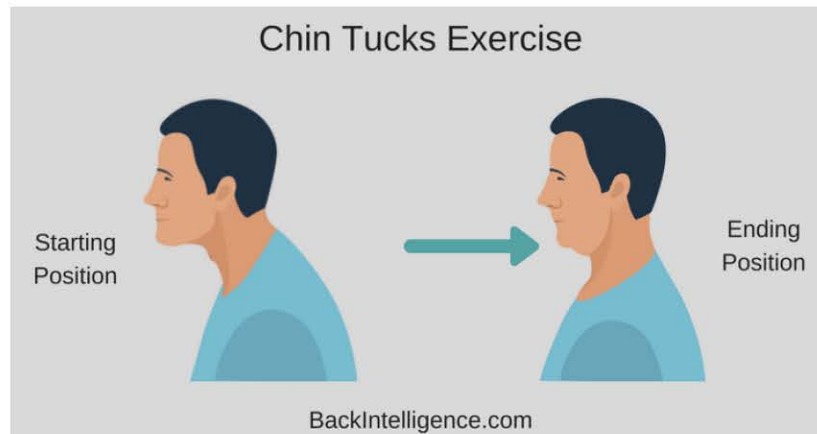
- Take a sip of your beverage, then look down at your lap before swallowing.
- Take a sip of your drink after each bite of meal.
- Hold each mouthful and sip for 3 seconds in your mouth before swallowing. Turn your head and swallow after each mouthful and sip.
- Take a small drink and swallow, pause, and cough while holding your breath. When you eat or drink something, sit bolt upright.
- After eating, sit upright for at least 30 minutes.
- Clear your throat hard after each swallow and swallow again. Clear any remnants in your mouth with your tongue.
- When drinking from a cup, use a straw to avoid tipping your head back.
- Crush your medications and put them in anything like apple sauce, yogurt, or pudding as a carrier.
- When you have food in your mouth, try not to speak.



Alternate swallowing techniques

CHIN TUCK

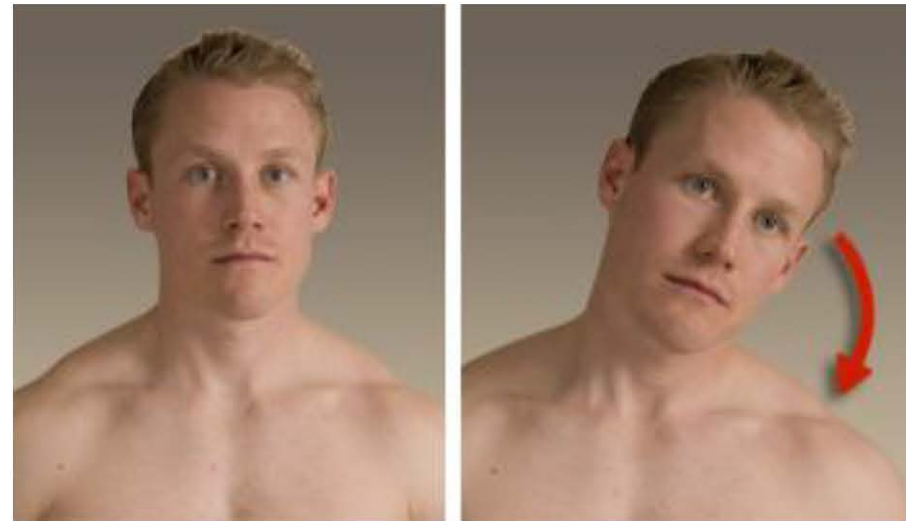
To shift the bolus anterior, lower your chin. It reduces early spilling by widening the epiglottic valleculae, which causes spillage to pause, giving the VFs more time to close, minimizing the likelihood of aspiration.



Source: <https://backintelligence.com>

HEAD TILT

When you turn your head to the better side, the bolus is redirected through the oral canal, which improves oral bolus transport.

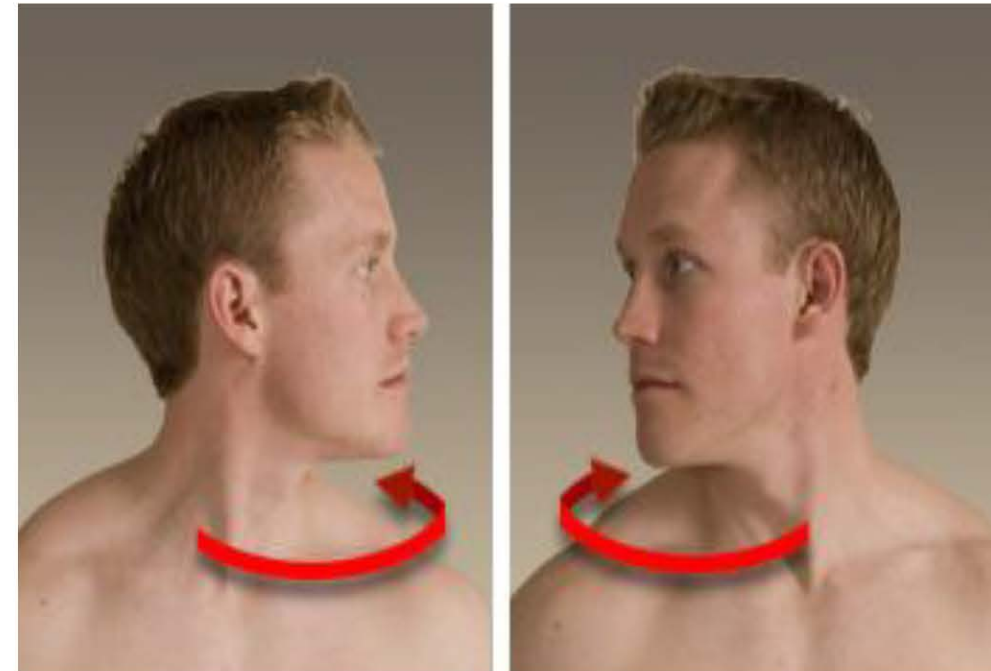


Source: <https://www.vhdissector.com>

HEAD ROTATION

Twist the head to the weaker side, closing off the weaker side and allowing the bolus to pass to the stronger side. Pocketing is also avoided.

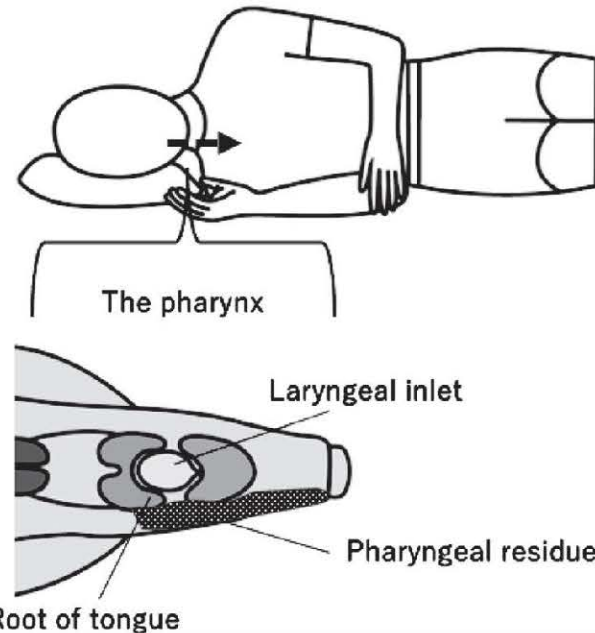
Rotating the head to the left or right increases pharyngeal contraction pressure at the level of the valleculae and pyriform sinuses on the side of rotation, decreases UES resting pressure on the side opposite rotation, and increases the duration from peak pharyngeal pressure in the pyriform sinuses to the end of UES relaxation when compared to a neutral head position and the anterior-posterior opening diameter of the UES has been enlarged.



Source: <https://www.vhdissector.com>

SIDE LYING

The prevailing rationale for using the side-lying approach is that lying down will keep remaining bolus material attached to the pharyngeal walls rather than allowing it to fall into the airway, which could happen more easily in an upright position due to gravity.



Source: Kaneoka A, Inokuchi H, Sakai T, Saito Y, Haga N. Utility of Side-lying Posture in a Patient with Severe Dysphagia Secondary to Oropharyngeal Cancer Surgery: A Single Case Report. ACS. 2022;25(1): 29-36. doi: 10.3233/ACS-210039

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HEAD BACK

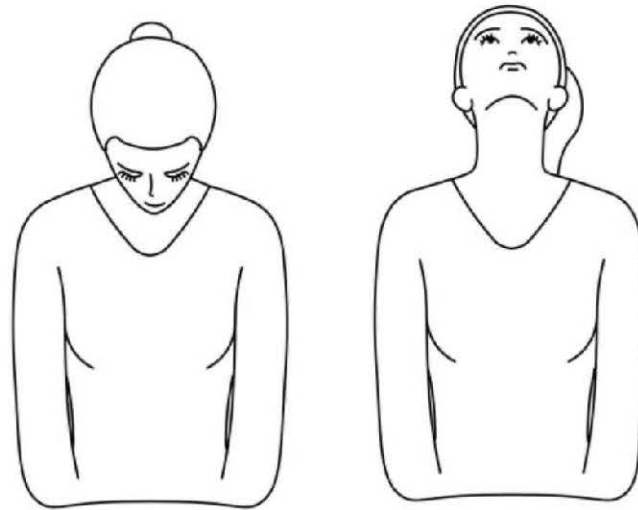
Utilize gravity to cleanse the oral cavity and bypass the oral stage.



Source: <https://northernmyotherapy.com.au/>

NECK EXTENSION

The individual is encouraged to sit or stand erect in the neck extension posture and to extend the neck backwards and elevate the chin upwards when transferring the bolus from the oral cavity to the pharynx.



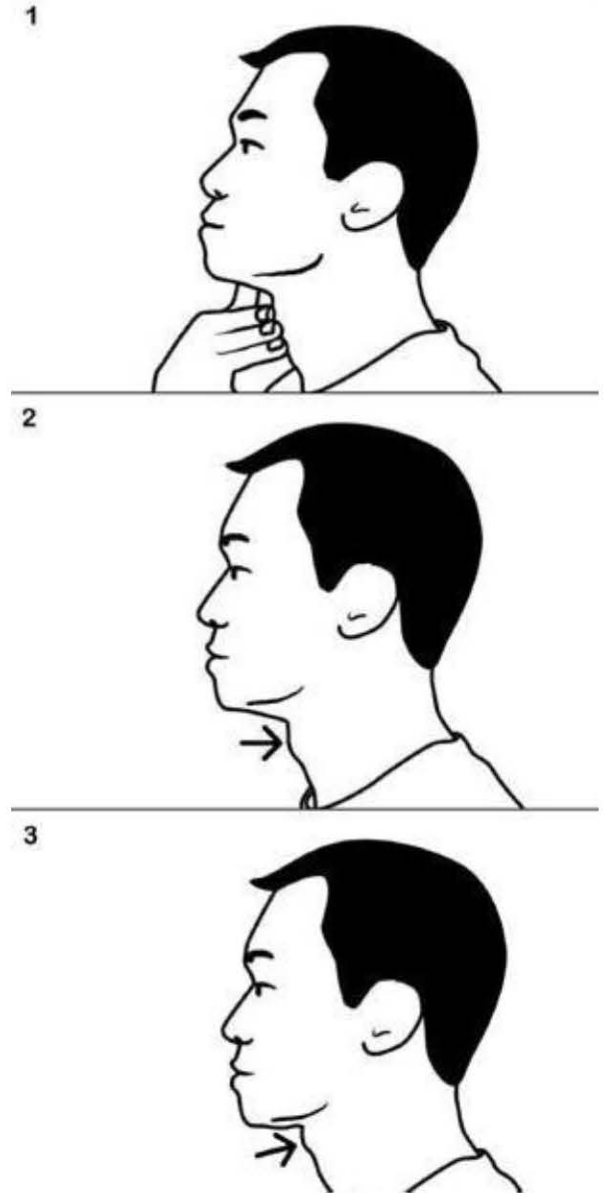
Source: <https://www.istockphoto.com>

MENDELSON MANOEUVRE

The Mendelsohn manoeuvre is used to treat laryngeal elevation during swallowing.

This manoeuvre necessitates a person with excellent cognitive talents. The individual is told to keep the swallow at the height of vertical larynx movement.

Source: Григус, І & Mykola, R. Clinical review of physical therapy intervention of swallowing disorder after stroke. 2013.



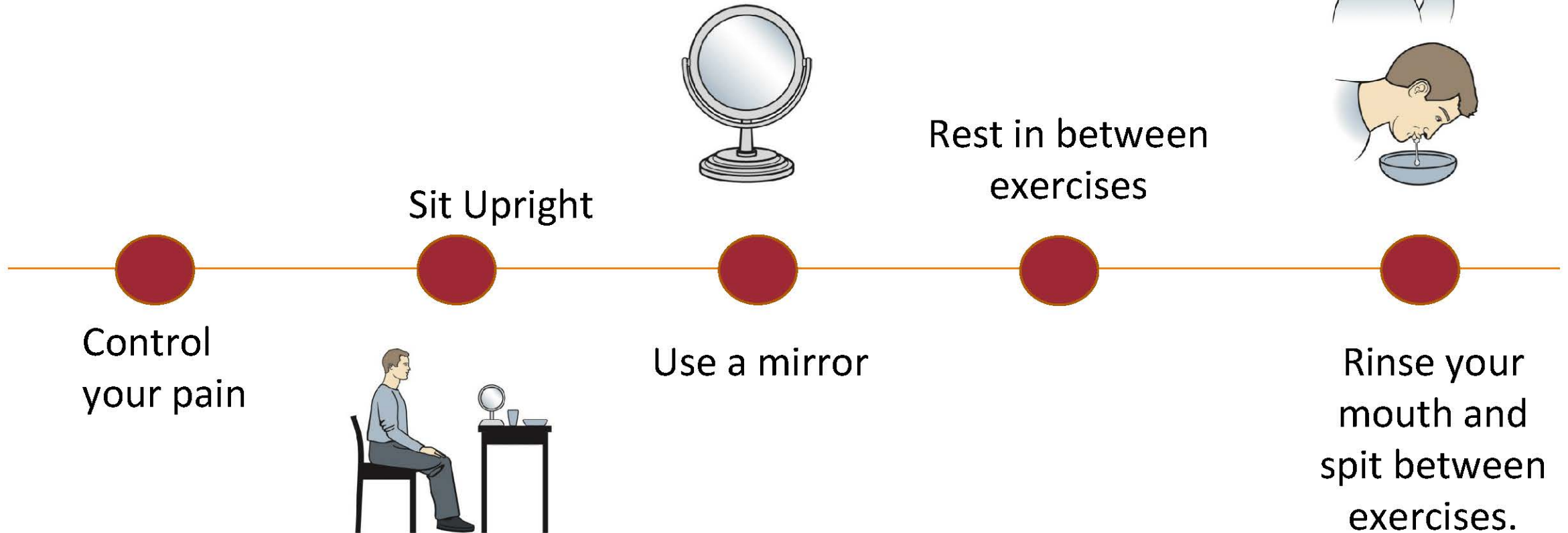
Swallowing exercises

What can you do to avoid swallowing difficulties?

When swallowing, we use 30 distinct muscles. It is critical to maintain these muscles active during treatment by continuing to eat and performing swallowing exercises both during and after treatment. The exercises in this brochure will help people suffering from dysphagia stretch and strengthen their mouth and throat muscles.

Professionals involved in dysphagia management may select the most appropriate exercises for patients and show them how to do these exercises.

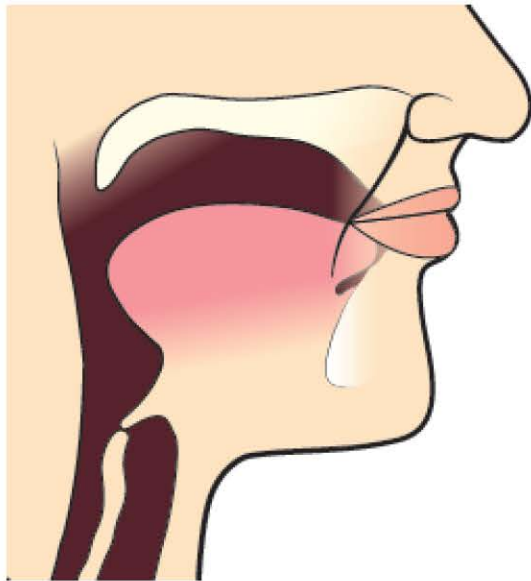
Useful tips to make swallowing exercises



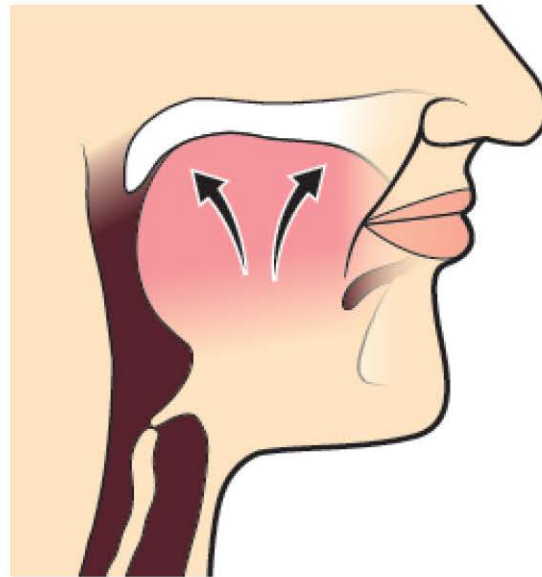
Source: University Health Network (www.uhn.ca)

Exercise 1 : The Effortful Swallow

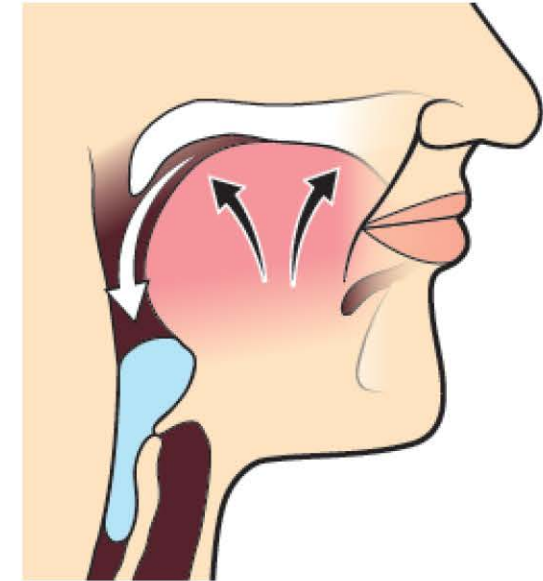
To make your throat muscles stronger
If you're eating by mouth, repeat this activity after each bite of food.



Begin by putting your tongue to rest.



As hard as you can, press your tongue against the roof of your mouth.

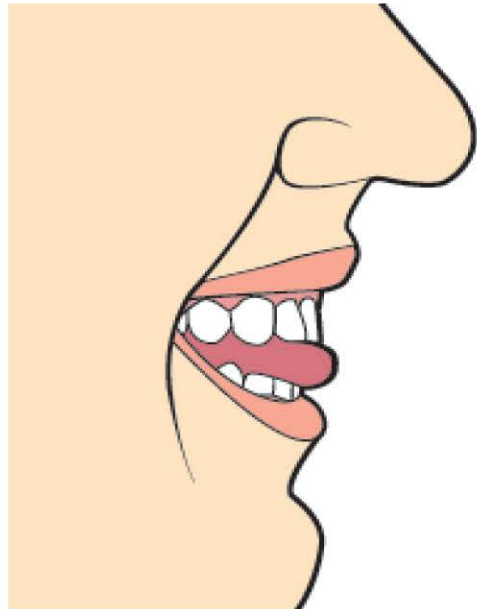


Swallow as much as you can.

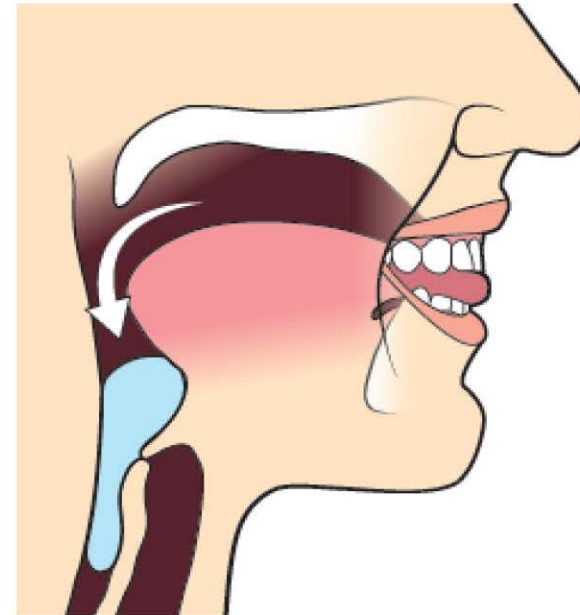
Source: University Health Network (www.uhn.ca)

Exercise 2 : The Masaco Technique

To make your throat muscles stronger



Hold the tip of your tongue
between your teeth or your lips.



Try to swallow your spit while
keeping your tongue in place.

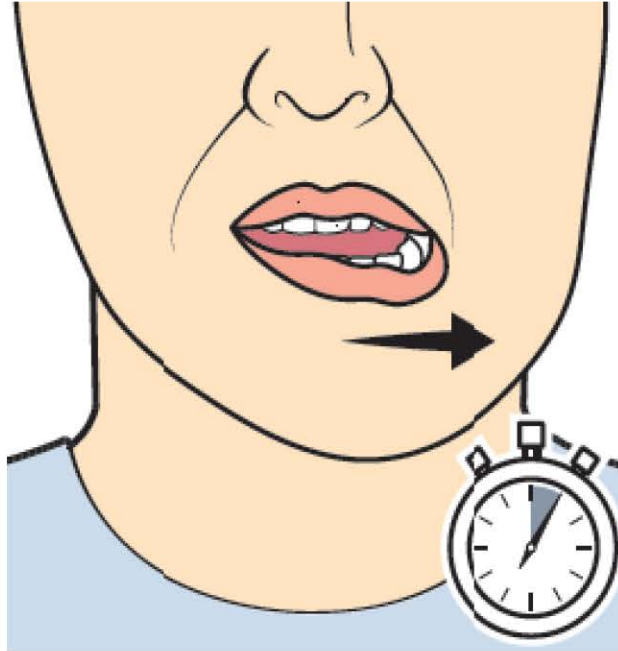
Source: University Health Network (www.uhn.ca)

Exercise 3 : Range of Motion Exercise (Jaw)

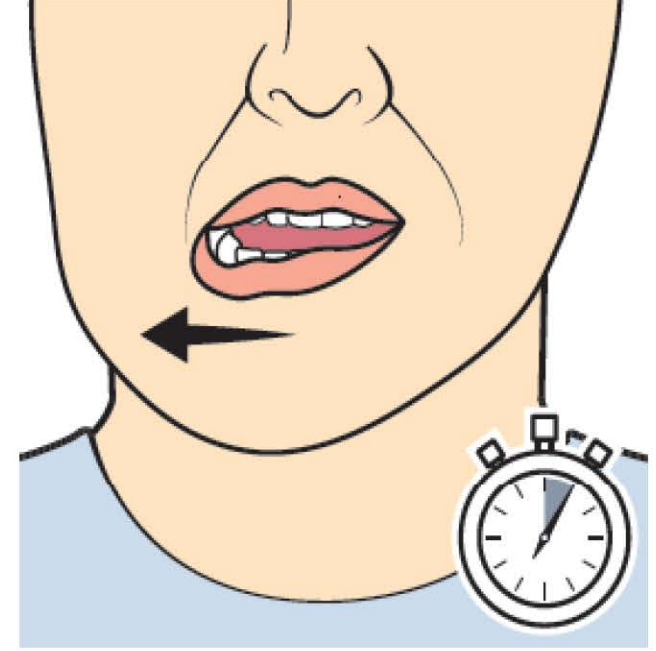
To stretch the muscles in your jaw



Open your mouth as wide as possible. Hold the position for 5 seconds.



Make a right-hand movement with your jaw. Hold the position for 5 seconds.

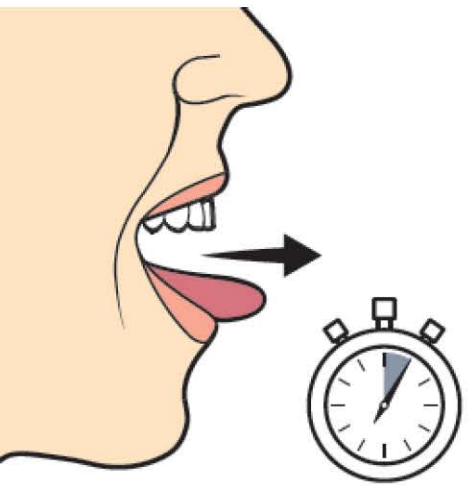


Make a left-hand movement with your jaw. Hold the position for 5 seconds.

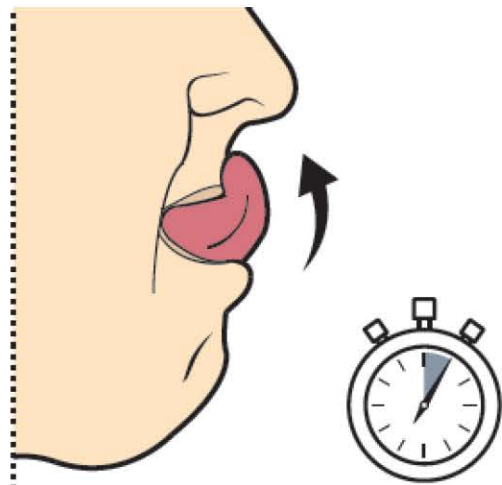
Source: University Health Network (www.uhn.ca)

Exercise 4 : Range of Motion Exercise (Tongue)

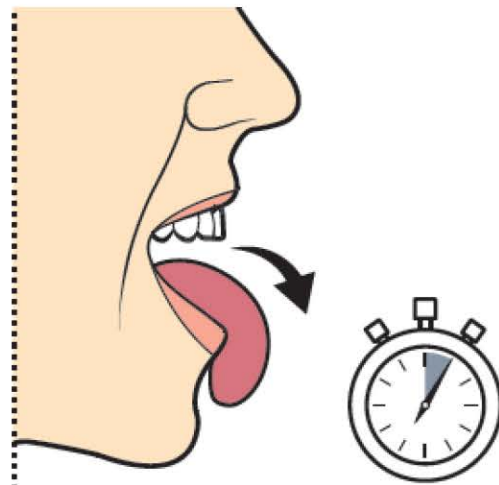
To stretch the muscles in your tongue



Extend your tongue as far as it will go. Hold the position for 5 seconds.



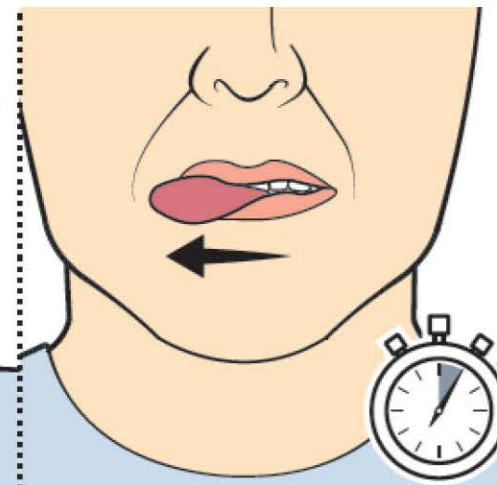
Raise your tongue to the bridge of your nose. Hold the position for 5 seconds.



Make a downward motion with your tongue towards your chin. Hold the position for 5 seconds.



Make a left-hand movement with your tongue. Hold the position for 5 seconds.

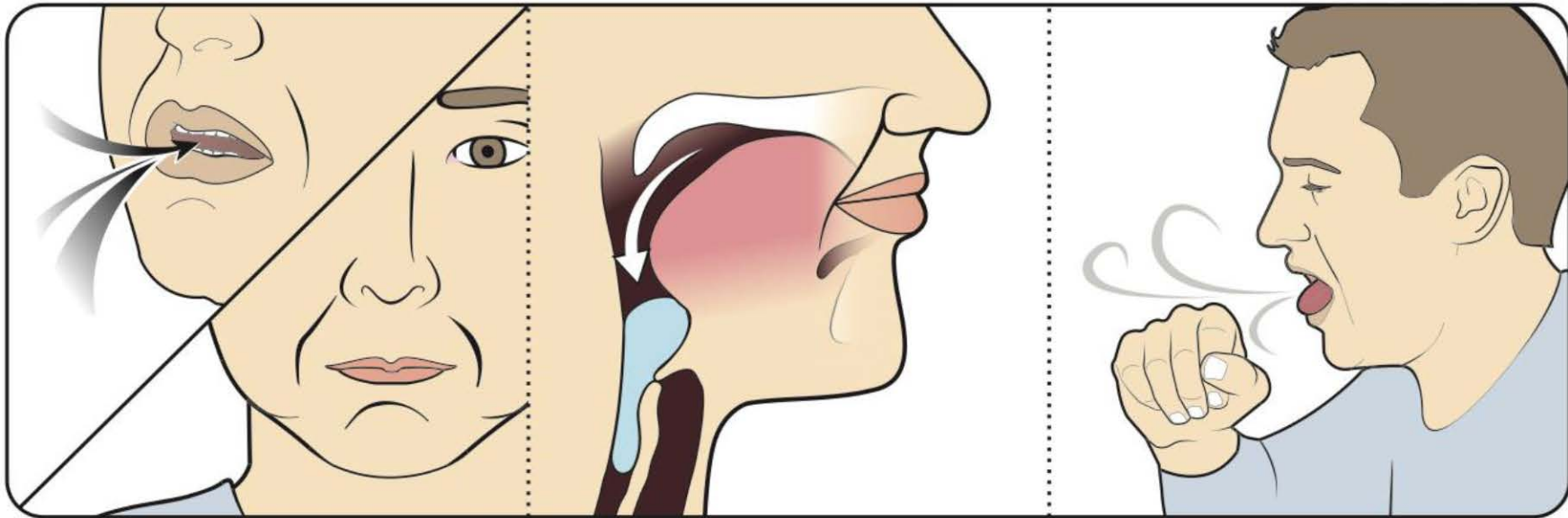


Make a right-hand movement with your tongue. Hold the position for 5 seconds.

Source: University Health Network (www.uhn.ca)

Exercise 5 : The Supraglottic Swallow

To keep your airway clear



Take a deep breath and hold it for a few moments.

Swallow

Then cough as forcefully as you can.

Source: University Health Network (www.uhn.ca)

Exercise 6: Modified Shakers Exercise

1. Sit up straight and breathe deeply.
2. Place your thumbs beneath your chin.
3. Tuck your chin between your thumbs.
4. Keep your hands in place for one minute. Repeat this process three times more.
5. Hold for one second, then repeat 30 times.

Note:

- You should be able to feel the front of your neck exercising.
- There should be no discomfort in the back of your neck.

REMEMBER NOT TO PUSH YOUR HEAD FORWARD.



Source: Swallowing Exercises for head and neck radiation therapy. Singapore General Hospital (<https://www.sgh.com.sg/>)

Tongue Base Strengthening Exercises

The base of your tongue is important for creating pressure that helps in swallowing. These workouts will strengthen and improve your tongue base's movement. Some people who have difficulty swallowing may benefit from these exercises.

You should avoid doing these exercises with food in your mouth.

Gauze Exercise

Between your front teeth, place a rolled piece of gauze. Hold the gauze in place gently and swallow.

Gargle Exercise

Pull your tongue back as far as you can in your mouth. Pretend to gargle vigorously, then exhale.



Tongue Pull-Back

Pull your tongue back into your mouth as far as possible by sticking it straight out. Hold the position for 2 seconds.

Yawn

For 1 second, yawn and open your mouth as wide as you can.

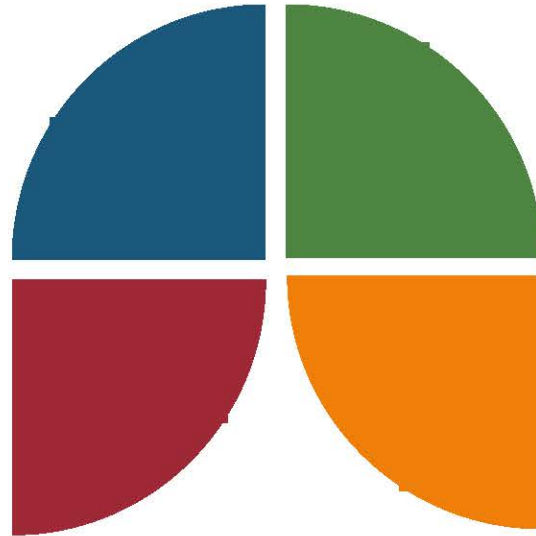
Tongue Exercises

Open-Mouth Swallows: While keeping your lips open, take a deep breath and swallow quickly.

Tongue Protrusion: Stick your tongue as far as possible out of your mouth without touching your lips. Keep it there for 3-5 seconds.

Tongue Retraction: As though you're ready to create a "kuh" sound, pull the base of your tongue back down your neck until it contacts the throat wall. Hold the position for 3-5 seconds.

Tongue Retraction/Protrusion: Combine the two previous exercises. Hold each for a couple of seconds.



Teeth Counting: Slowly touch and count each of your teeth with the tip of your tongue.

Gargle: Make a gargle sound by pulling your tongue back into your throat. Hold for a couple of seconds.

Tongue Lateralization: Make your tongue protrude out by pressing it hard on the inside of your cheek. For 3-5 seconds, press your index finger against your tongue through your cheek. Rep on the opposite side.

Tongue Press: For 3-5 seconds, press your tongue against the roof of your mouth as hard as you can.

Tongue Sweep: Place the tip of your tongue behind your upper teeth. Return your tongue tip to the roof of your mouth slowly but firmly.

Tongue Circles: Your tongue should be firmly pressed on the inside of your lips. Slowly make a circle to the right, then to the left.

Throat Exercises



Valsalva: Say “hut” firmly, then swallow right after.

Pitch Glides: Sing “ee” starting at the lowest note and slowly slide up the scale to your highest note. Hold for 10-20 seconds.

Shaker (Part 1): Lie on your back without a pillow. Lift your head up and look at your toes. Hold for 30 seconds, then rest for 30 seconds. Repeat 3 times.

Shaker (Part 2): Lie on your back without a pillow. Lift your head up and look at your toes. Quickly relax your head. Repeat 30 times.

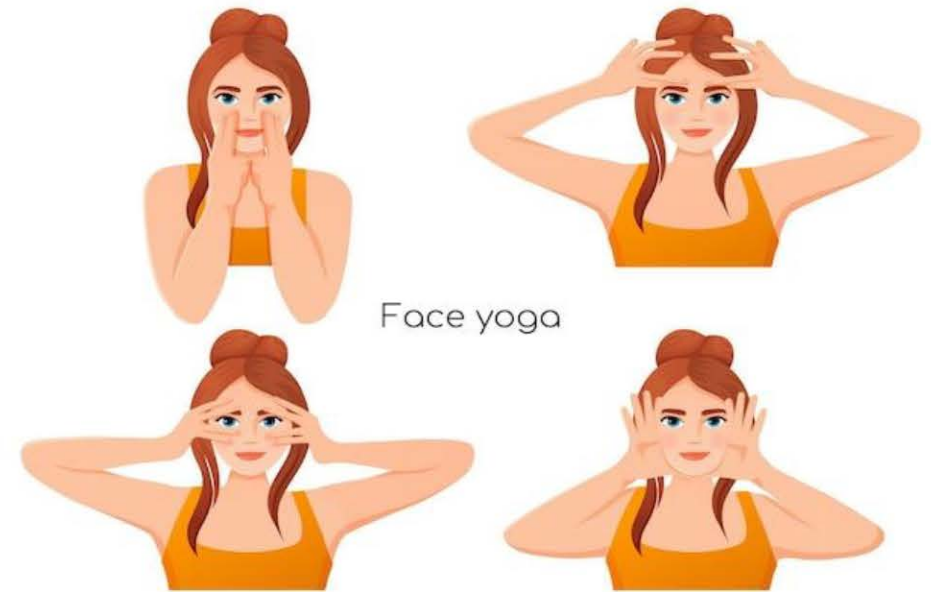


Towel Tuck: Place a rolled hand towel between your neck and chest. Tuck your chin and hold the towel in place without using your hands. Swallow hard.

Exercise for cheek muscles

What is the exercise for cheek muscles?

Your cheek muscle workouts will be determined by the nature of your swallowing problem. You might have trouble with the first step of swallowing, before the food stuff leaves your mouth, for example. If this is the case, training the muscles in this area may be beneficial.



(Source: <https://www.freepik.com>)

How can we do it?

These exercises can be done in your hospital room or at home. You can usually do these exercises on your own, but you can also work with a health expert.

Among the exercises for strengthening the cheek muscles are:

- Filling the cheeks with air and retracting them,
- Moving air from one cheek to the other
- Workouts that strengthened the tension in the cheek muscles (resistance attempt against the expansion of the cheek with a spatula placed in the vestibule).

These exercises are done a total of ten times.

Reflect on the session

A central graphic of a black smartphone with a white home button. Three horizontal arrows are overlaid on the screen: an orange arrow pointing left at the top, a maroon arrow pointing right in the middle, and a blue arrow pointing left at the bottom. To the left of the orange arrow is a maroon circle, and to the right is an orange circle. To the left of the blue arrow is a maroon circle, and to the right is a blue circle.

What did you learn today?

How will you apply what you have learnt?

What next?

Feedback



How many stars
would you give this
workshop
(1 to 5)?



What reasonable change
would you recommend?



What did you
like the MOST?



What did you
like the LEAST?

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- Speech and Swallowing Exercises. Huntsman Cancer Institute - University of Utah. 2022. Available at: <https://hci-portal.hci.utah.edu/sites/factsheets/Shared%20Documents/speech-and-swallowing-exercises.pdf?Mobile=1>

Indeed partners



<https://indeed-project.org/>

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