



PARTICIPANTS NEEDED

for Study of Long COVID Amongst
 People from Different Racialized
 Communities

Have you previously had COVID-19? Have your symptoms lasted more than 2 months? If yes, then you may be eligible to participate.

Welcome

Please change your screen name to your First Name and Last Name initial
 Eg. Monica M., Erin L.

*This is required for attendance and participation.

To change your name after entering a Zoom meeting:

1. Click on the “Participants” button
2. Hover your mouse over your name in the “Participants” list
3. Click on the three dots and choose rename



How it works

The entire study will:

- Take approximately 2 hours.
- Can be done virtually.

As a participant you will:

- Be asked to complete some questionnaires and some tests of abilities such as your memory and attention.
- Be asked to do an interview or take part in a focus group about how Long COVID is affecting your daily life.



Why Join

As a participant you will:

- Help generate information that will guide the development of culturally appropriate and targeted strategies to improve recovery from Long COVID.
- Receive a gift card for your participation.



Contact Us

Email - AGodinho@hrh.ca
 Phone - 416-242-1000 ext. 21205

Voice, Cough and Swallowing



So much action all in one little neck

Risks of technology

- Technology may not always work as intended, if the technology fails, group facilitators will make other arrangements to deliver group education materials
- Although participants are requested to not share the meeting link and password, there is a risk that a participant may share this information outside of the group. Only people who are registered to the program however will be admitted to the session
- Group members have agreed not to record the sessions but there is a small chance someone may not follow this agreement
- Group members have been asked to join the call from a private space, but there may be a chance someone may be outside the camera view and could hear the group conversations
- Group members may share links in the chat. These links are not endorsed or reviewed by Unity Health. Open at your own discretion.

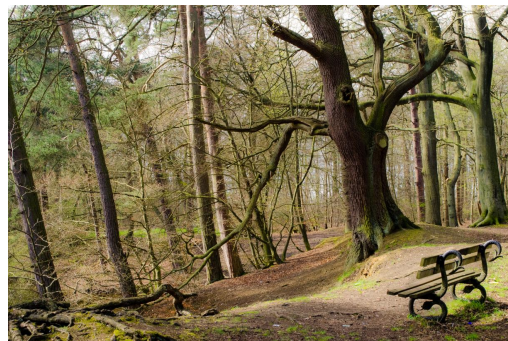
Group norms

- Ask questions and share your comments, but be reminded we cannot give you individual advice during this session
- We may not be able to respond to direct messages sent to the presenter or facilitator during the live sessions.
- Please use our confidential email address to send any personal concerns you are having postcovidrehabphc@unityhealth.to
- Keep comments/questions brief and on topic to the content being covered, this will allow everyone a chance to participate
- Group conversations should not be shared with anyone outside of the group
- Be kind and respectful to all including yourself
- Be careful with humour, we are all different
- We are all on our own journey with different life experiences and perspectives
- We all have unique identities, needs and values

Session Plan

Voice

Cough



Swallowing

A word about acid reflux

Obvious signs:

- acid in throat,
- heartburn

Less obvious signs:

- “lump in throat” feeling
- Bad taste in your mouth
- Coughing after meals or after you lie down
- Throat clearing, cough, hoarse voice, trouble swallowing, shortness of breath

Acid from stomach gets up into the esophagus and throat

Can cause damage to vocal cords, lining of throat, esophagus, lungs

Talk to your GP

Voice

Voice problems post COVID

How voice works & what goes wrong

What you can do

When to seek help

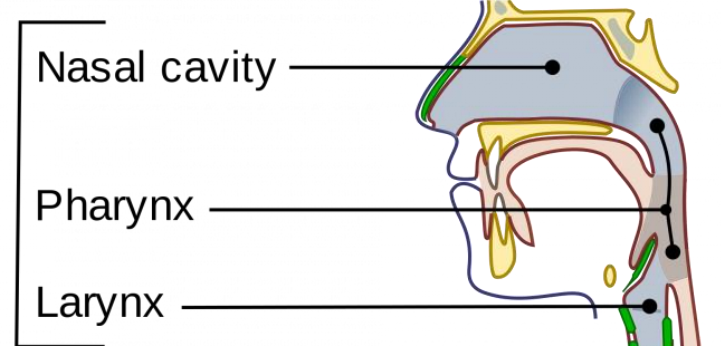
Voice problems after COVID

- Running out of breath when speaking
- Problems being heard or raising your voice
- Change in voice quality (e.g. hoarse, raspy, strained)
- Frequent throat-clearing
- Sore throat or throat muscles
- Fluctuating voice over the day

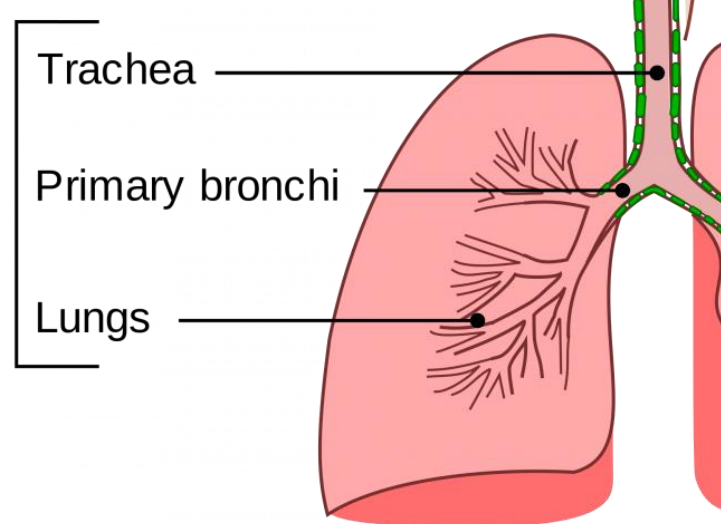
Important to tell your doctor what you're experiencing & for how long!

How voice works

Upper respiratory tract



Lower respiratory tract



How we produce voice

Breath + Vibration of the vocal cords

More breath or increased muscle tension



Louder voice or more words per breath

Respiration



Phonation



Causes of voice problems

- Intubation damage (ICU patients)
- Fatigue (general or muscle)
- Reduced breath support/lung capacity
- Dysfunctional breathing patterns (e.g. breathing with chest muscles instead of diaphragm)
- Vagus nerve role? (Dysautonomia)
- Inflammation?
- Allergies?
- Acid reflux (direct damage to vocal cords)

Typical causes of voice problems post-COVID

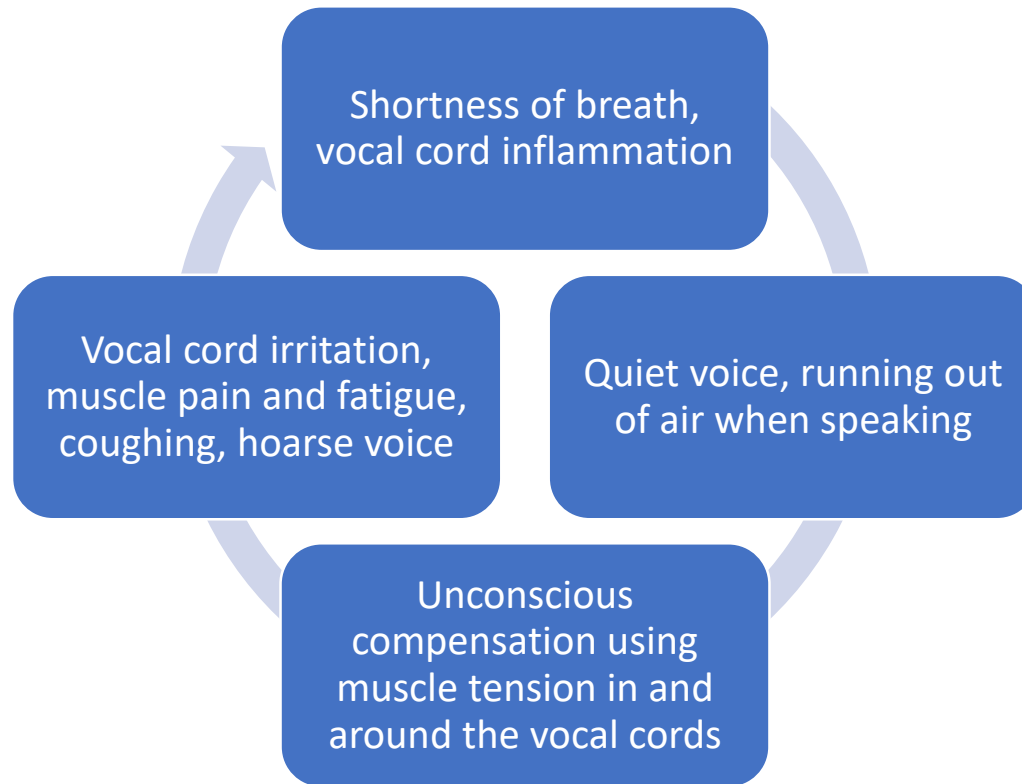
Breathing Problems

- Running out of air while speaking
- Quiet voice, unable to project

Vocal Cord Problems

- Hoarse voice
- Quiet voice
- Fluctuating voice quality or loudness

When compensating goes wrong



Vocal Hygiene: Taking care of your voice

General health:

- Stay hydrated
- Make sure your environment is humidified
- Prevent and manage reflux
- Allow for periods of voice rest during the day, especially after using your voice for a while
- Reduce coughing and throat clearing

Taking care of your voice

Increase your awareness of your breathing and muscle tension:

- Slow down your speech so you can take more frequent breaths
- Take a breath BEFORE you find yourself running out of air and *squeezing* the last few words out using muscle tension
- Check and reset your breathing often - more breath support means less muscle tension needed
- Consciously relax your jaw, keep space between your teeth
- Use a relaxed, natural voice - if you are under stress, take some slow breaths, wait until you can speak quietly and calmly
- Avoid speaking while exerting yourself physically

Taking care of your voice

Try to avoid having to raise your voice

- Face your listener, and move closer
- Don't call to the next room or floor of your house - go to the person - or text them
- Use a headset and microphone for virtual calls and meetings
- Reduce background noise (mute the TV, lower the music, move to a quiet room or street, wait for the bus to go by)

Exercises for breathing and muscle relaxation

Diaphragmatic breathing (it always comes back to the breath)

Humming (activate your voice on exhalation = humming)

Yawning

- With or without your voice
- Yawn with your lips together (as if you are trying to hide it!)
 - you can trigger this by closing your mouth and stretching the roof of your mouth upwards

Face, jaw relaxation exercises

Neck and shoulder stretches (check with your doctor if you have neck/back problems)

When to seek help

- Change in voice quality lasting longer than 3 weeks (hoarse, raspy) or losing your voice
- Persisting pain especially in the voice/vocal cords
- Frequent symptoms of acid reflux
- Voice problem affects communication with family, friends, work
- Unable to be heard on the telephone or at work
- Ask family doctor for a referral to a Laryngologist (Ear Nose & Throat doctor who specializes in the voice and throat)
- The Laryngologist may refer you to a Speech-Language Pathologist for voice therapy
- The ENT clinic at St. Michael's Hospital has Laryngologists and a Voice Clinic

Cough

What is a cough?

Reasons for a post COVID cough

Cough prevention

When to seek help

What is a cough?

Vocal cords banging together with high impact

Throat clearing is a mini-cough

Hero

Protect the airway from irritants, food/drinks, particles

Clear the lungs of infection, mucus, dust
80 km/hour!



What is a cough

Vocal cords banging together at high impact
Throat clearing is a mini-cough

Villain

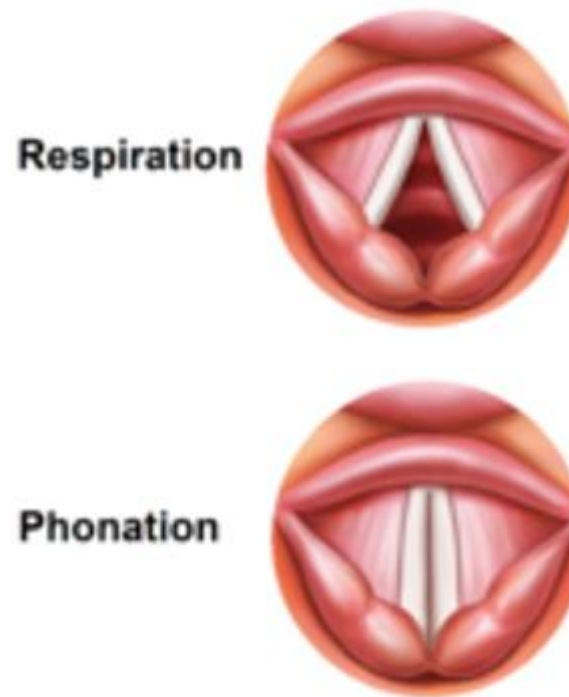
Repeated impact can cause irritation,
inflammation, lesions
Hoarse voice, laryngitis

Circular: cough → irritation → cough

Habit can play a role

What is a cough?

Vocal cords from above



Cough - when to seek help

- Any persisting cough should be assessed by GP/NP
- Pain (in throat, vocal cords)
- Acid reflux
- Start with GP - may be referred to Respiriology, Allergist, Laryngologist (ENT)

Important to tell your doctor what you're experiencing & for how long!

Who helps?

1. Triggered at the level of the **lungs**: seek help from MD

- Irritation, hypersensitivity
- Asthma
- Post COVID lung damage
- Post-intubation

2. “Intractable” - (seek help from MD, SLP voice specialist)

- Unknown causes including neurological, respiratory

3. **Vocal cord** irritation: MD, SLP +/- prevention strategies

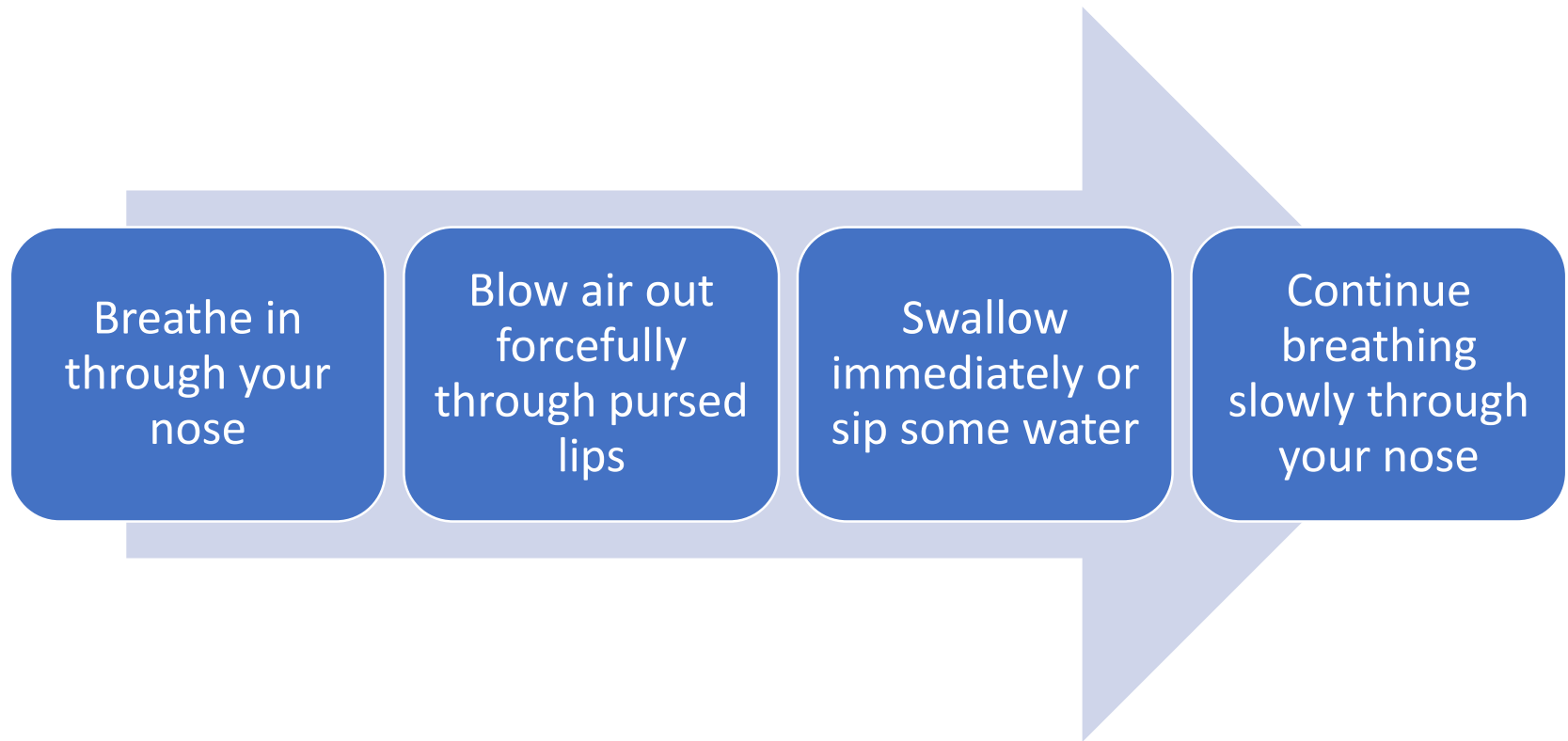
Cough: Prevention strategies

- Every cough or throat-clear you prevent helps reduce vocal cord irritation
- At first you'll notice **as** it's happening, but try to notice signs you're **about** to clear your throat or cough
- Then if you have time, try a prevention strategy or combination of strategies

Cough prevention strategies

- Try to breathe slowly and through your nose
- Swallow
- Take a sip of water and swallow
- Use a lozenge (not peppermint - can cause reflux)
- Distract yourself in some way
- Try a **silent cough**

The Silent Cough



Take a few breaths (and a five minute break)





Swallowing

Swallowing problems post COVID

How swallowing works

Strategies

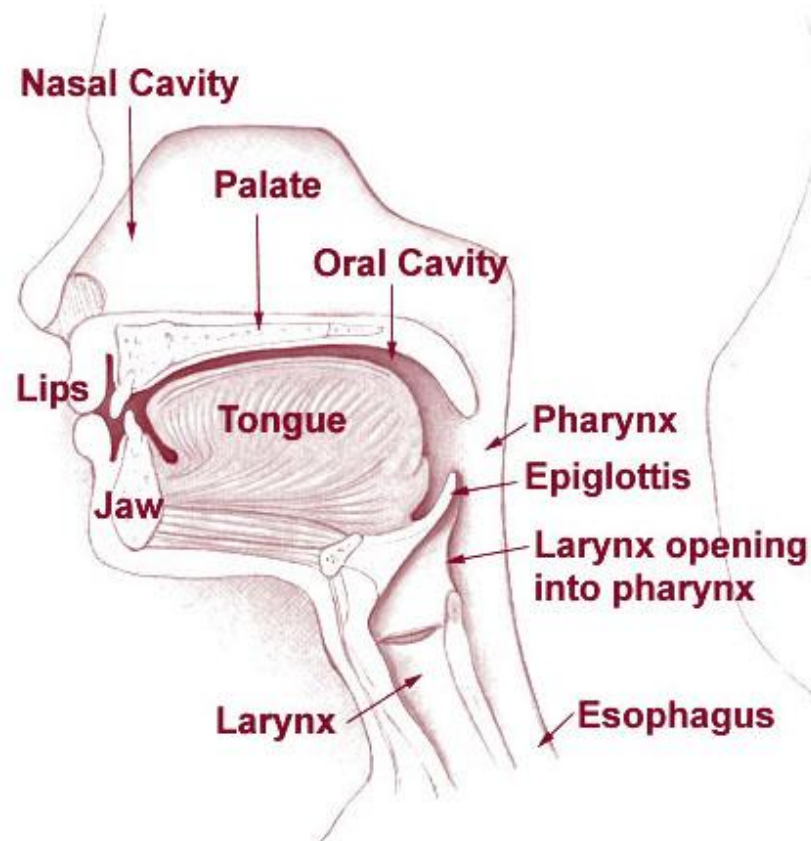
When to seek help

Swallowing Problems Post COVID

- Coughing on food or drinks
- Food or drinks “go down the wrong way”
- Fatigue gets worse with eating
- Shortness of breath gets worse
- Multiple swallows for every bite
- Can’t swallow pills or dense solids

Important to tell your doctor what you’re experiencing & for how long!

Anatomy of swallowing



How we swallow

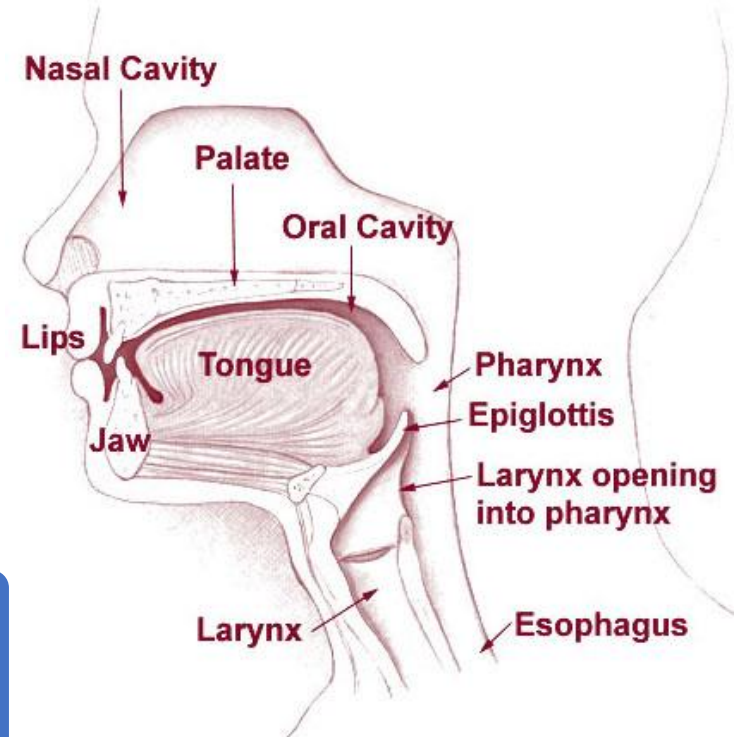
Oral stage - Conscious/voluntary:

A bite of food goes into your mouth

Chew to break it down and mix it with saliva

Collect it all together into a bolus

And move it to the back of your tongue



How we swallow

Pharyngeal Stage (automatic/involuntary):

Protect the
airway

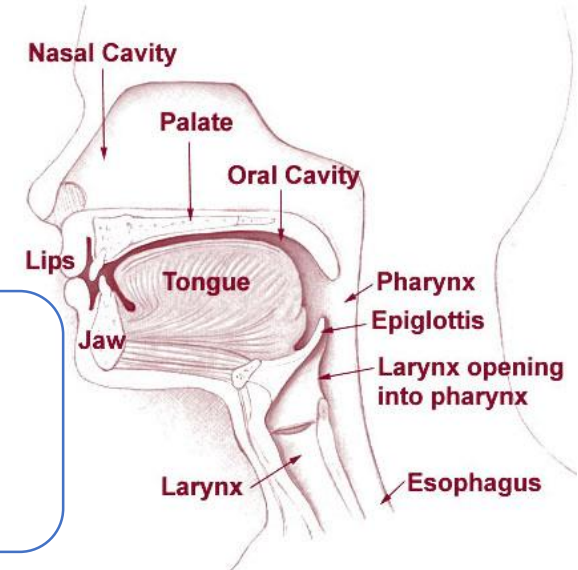
- Epiglottis flips down to cover the larynx
- Vocal cords close tightly (you hold your breath)
- Whole larynx elevates (Adam's apple) to get the airway out of the path of the food)

Throat
muscles
contract

- Circular contractions push the bolus down toward the esophagus

Back to
baseline

- Muscles relax, larynx settles back down
- Vocal cords open
- Small exhalation, then begin to breathe again



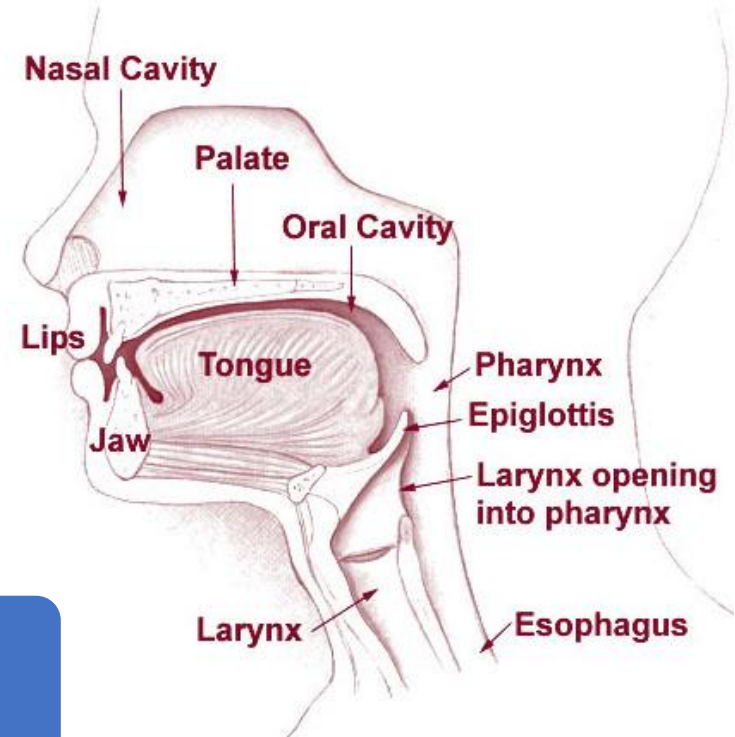
How we swallow

Esophageal stage (automatic/involuntary):

Entry to the esophagus (sphincter) opens briefly to let the bolus through

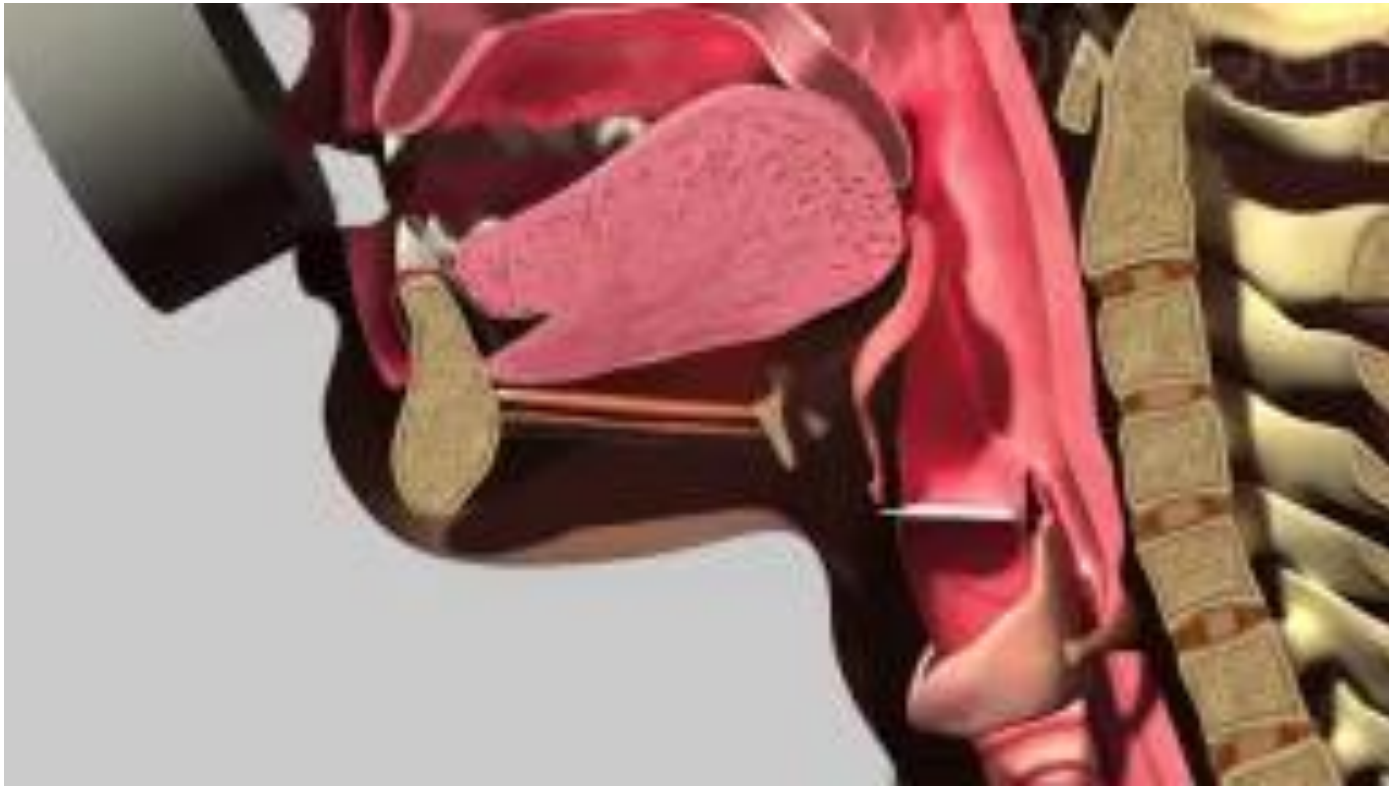
Involuntary muscular contractions of the esophagus move the bolus downward

Another sphincter opens to move the bolus into the stomach



Medbridge - A. Mansolito
https://youtu.be/1btg_gM4Ogw

How we swallow



How we swallow

Automatic + conscious components

Incredibly complex and requires:

- Muscle strength and effort (impact of fatigue)
- Sensation (including cough reflex)
- Coordination of breathing and swallowing (you hold your breath when you swallow)
- Attention component (impact of fatigue, distractibility)

Easy to disrupt this perfect system

Swallowing Problems Post-COVID

Shortness of breath

- Inhale too soon: food/drink into airway
- Early fatigue and poor intake

Muscle fatigue/ weakness

- Food not chewed well – increased effort to swallow
- Food left behind in throat – multiple swallows to clear
- Food gets left behind in mouth or throat - inhaled

Brain Fog/ distractibility

- Mistimed breathing/swallowing
- Food/drinks into throat before airway protected
- Talking while eating – inhale to speak: inhale food

Strategies

Reduce the effort required to chew and swallow:

- Small frequent meals
- Avoid dry, crumbly, dense, fibrous, tough foods
- Small bites
- Eat slowly, rest between bites
- Keep easy foods on hand for when you're tired (soup, smoothies, yogurt)

Strategies

Slow drinks down:

- Small single sips
- Catch your breath between
- Straw/no straw might make a difference
- Keep your glass closer to full (tipping your head back makes control harder)

Strategies

Give the activity all your attention: Eat and drink mindfully

- Avoid watching TV or being on your phone while you eat and drink
- Eat at the table
- Minimize conversation (at least while you're swallowing)
- Eat in a quiet place
- Educate the people you eat with

When to seek help

Even one choking episode (blocked airway)

Pneumonia (food/drinks may be getting in the airway)

Coughing on food or drinks even when careful

Effortful swallowing, food or pills getting “stuck”

Painful swallowing

Acid reflux

Start with GP or NP - may be referred to ENT, SLP, GI



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