

Voice Management Strategies

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Voice Overuse

We use our voices a lot

Teachers speak in the classroom
between 60% to 75% of the time

Rooms are not designed with speaker
acoustics in mind



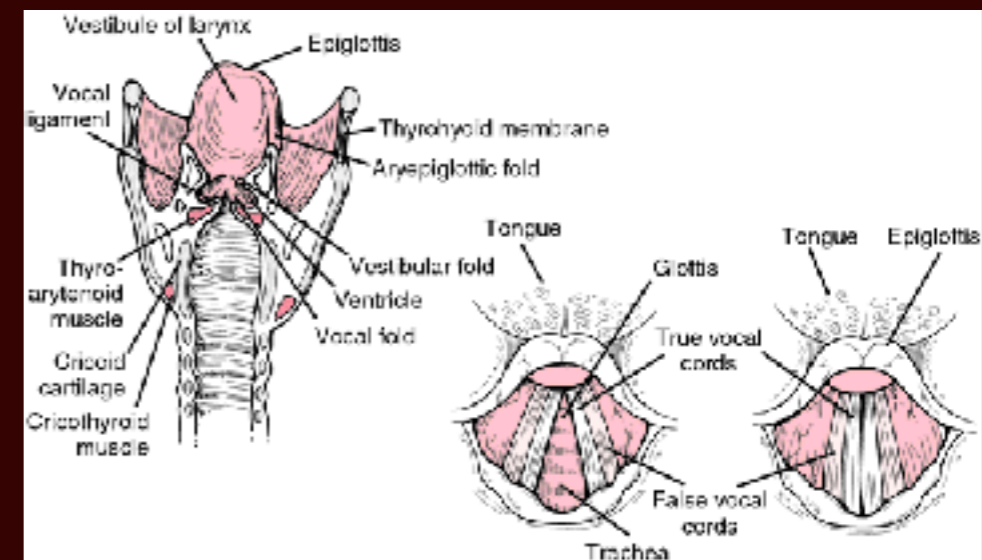
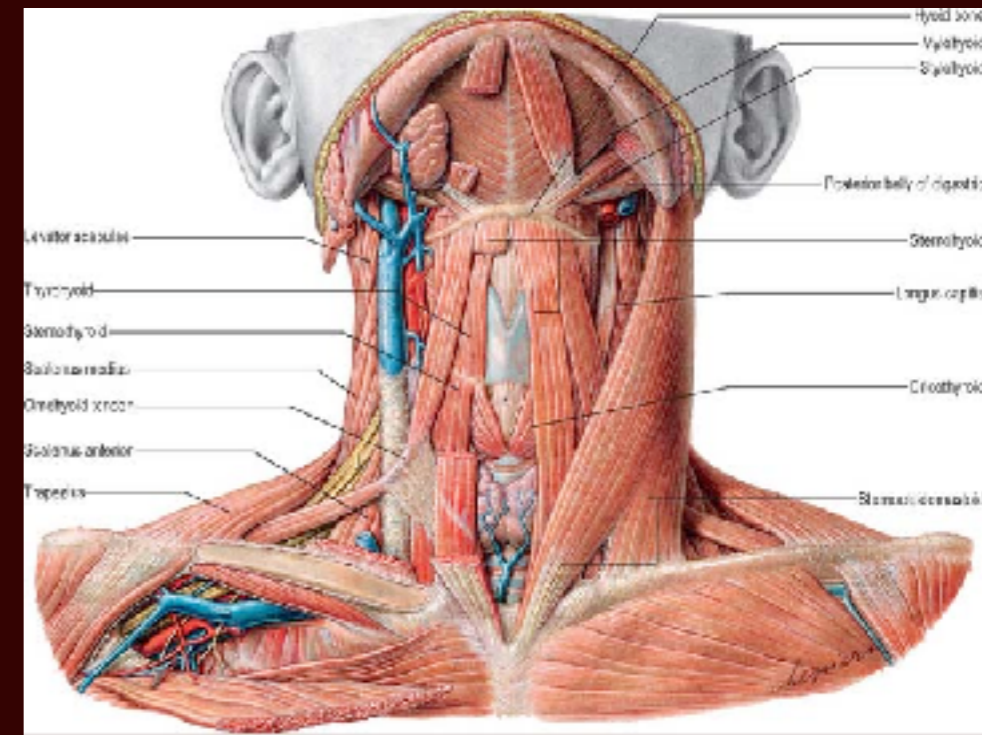
Invisible Damage

We can't see the damage caused

Don't realize it's happening

Difficult to monitor your voice status

Hard to see what needs to be fixed



Solutions Ignored

No advice is ever given about how to use one's speaking voice when teaching

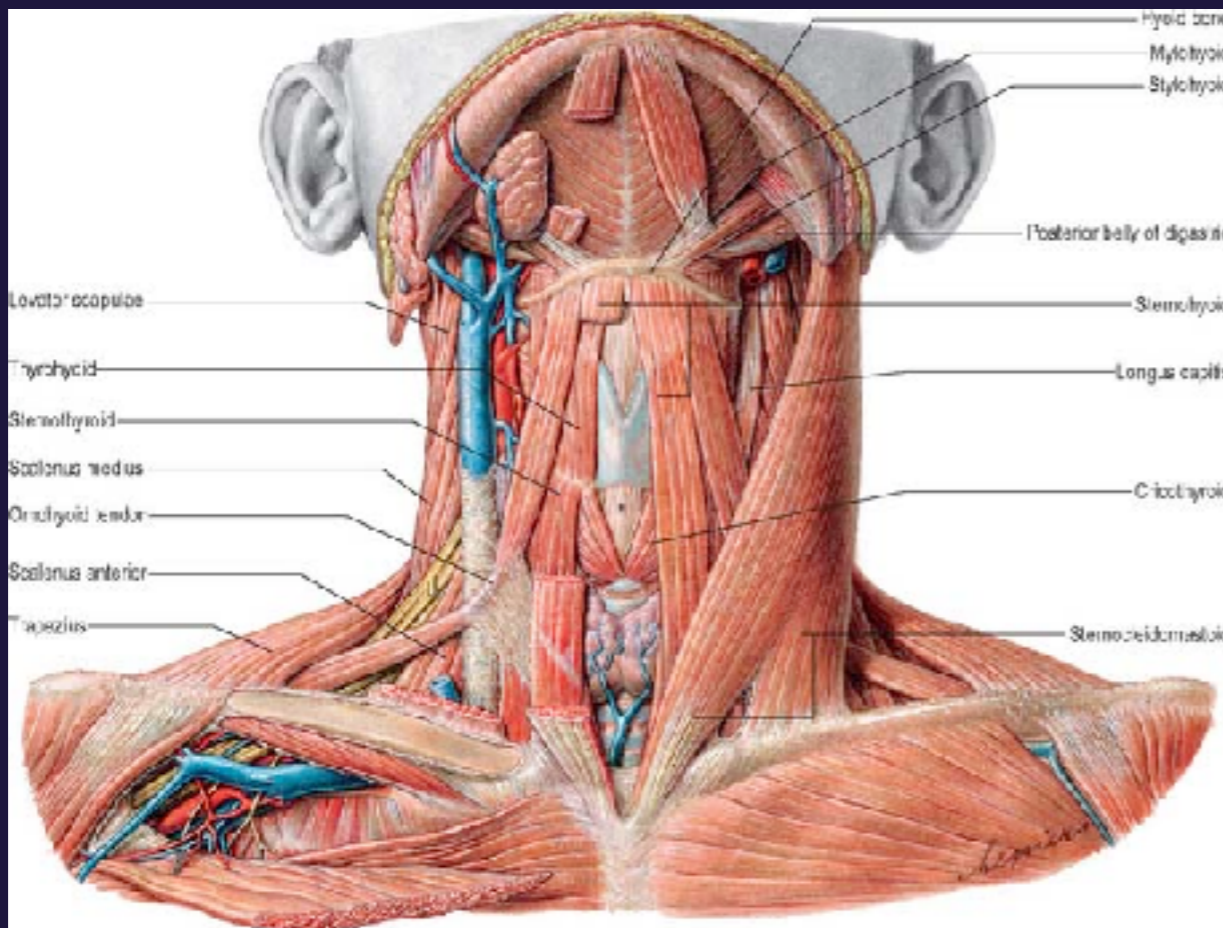
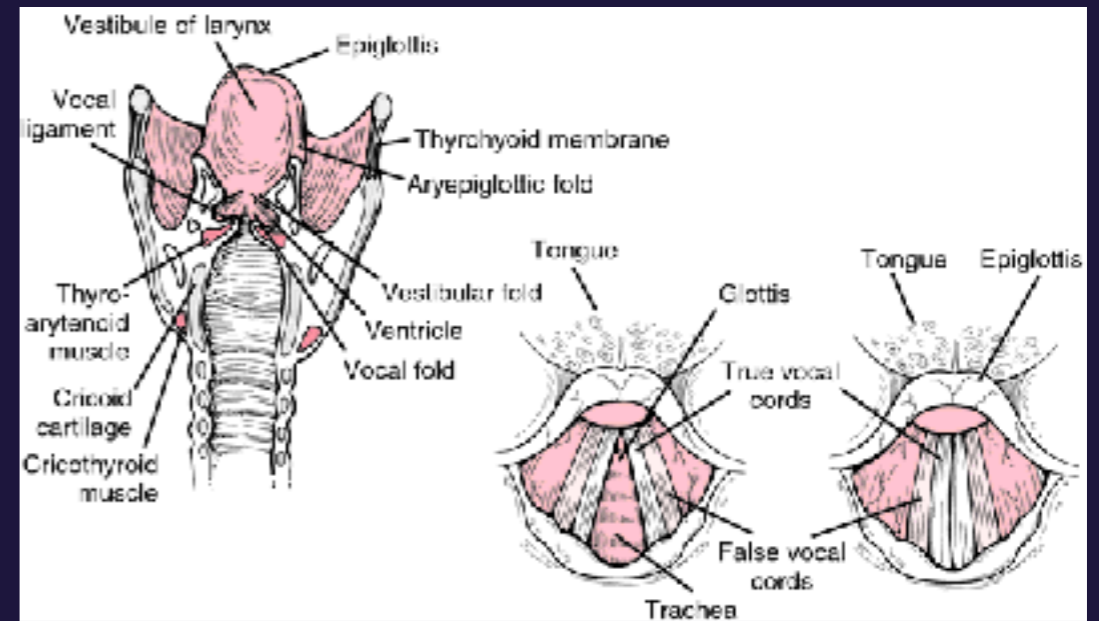


“In my opinion, you’re either part of the problem or part of the solution. Unless, of course, you’re Jones, who thinks he can just float above it all!”

How the Voice Works

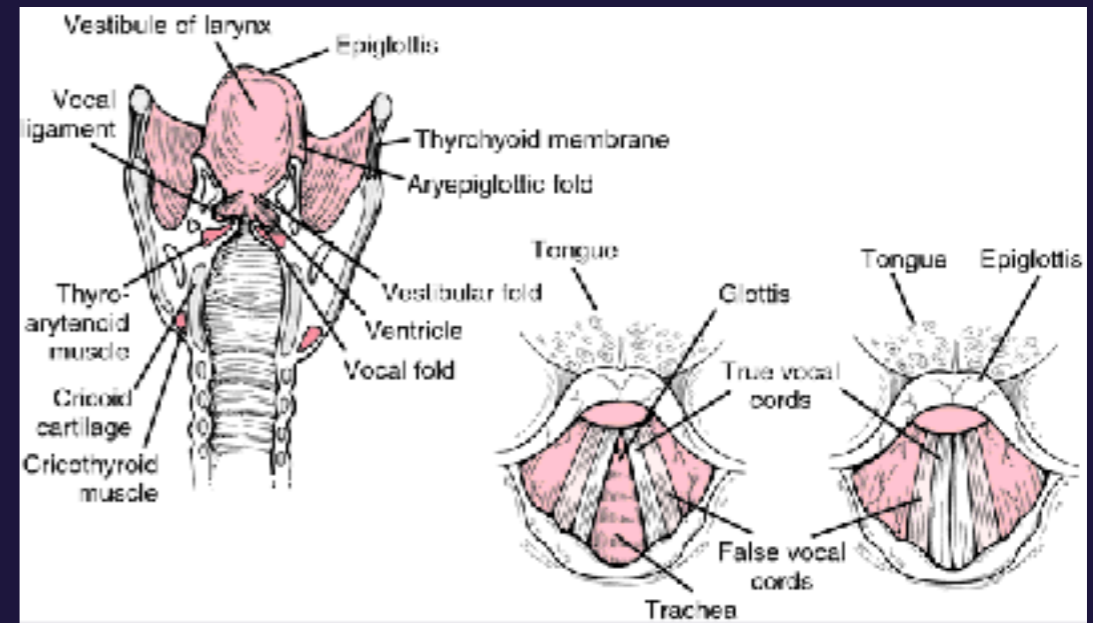
Larynx (muscles and cartilage)

Strap Muscles

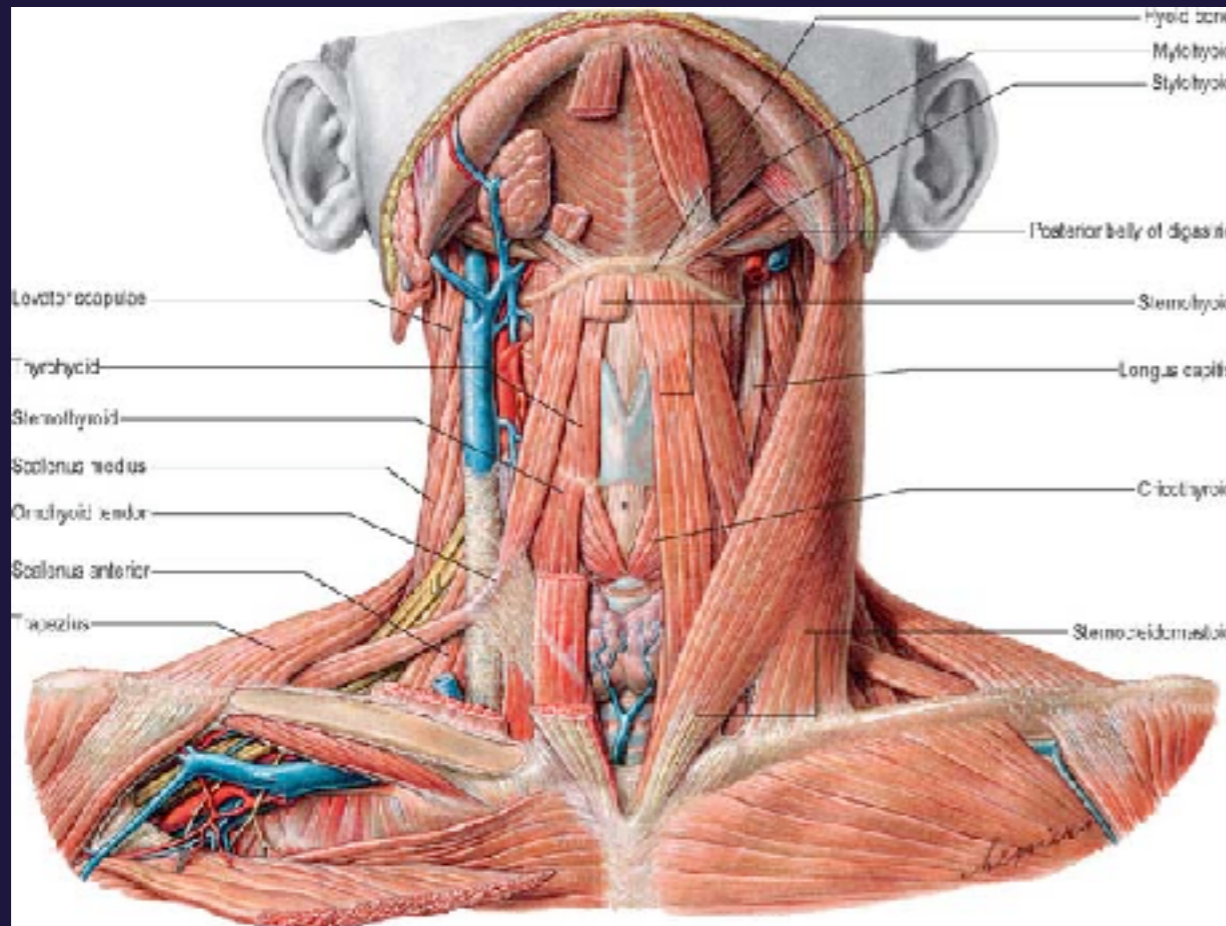


Muscles

Larynx (muscles and cartilage)



Strap Muscles



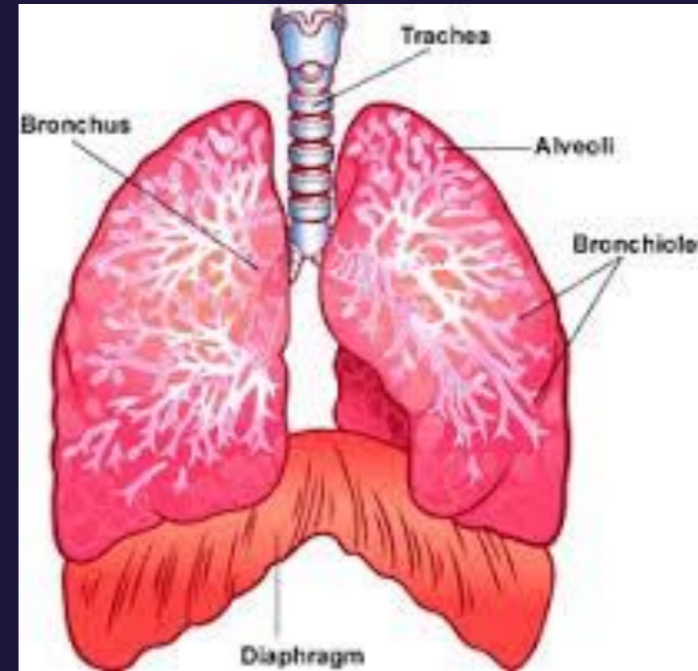
Lungs, Diaphragm

Lungs

Two inside ribcage

Organs of Respiration

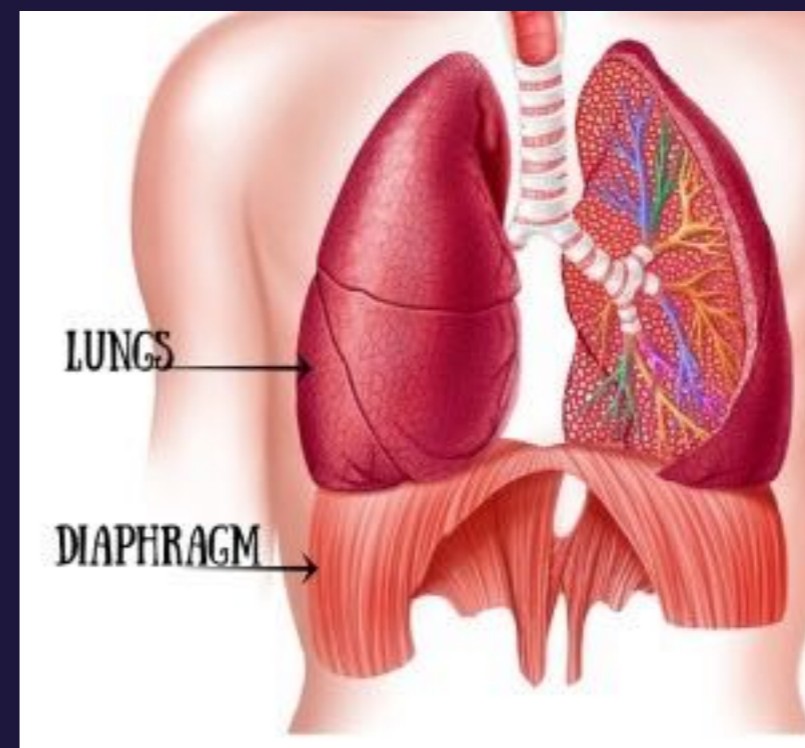
Don't move



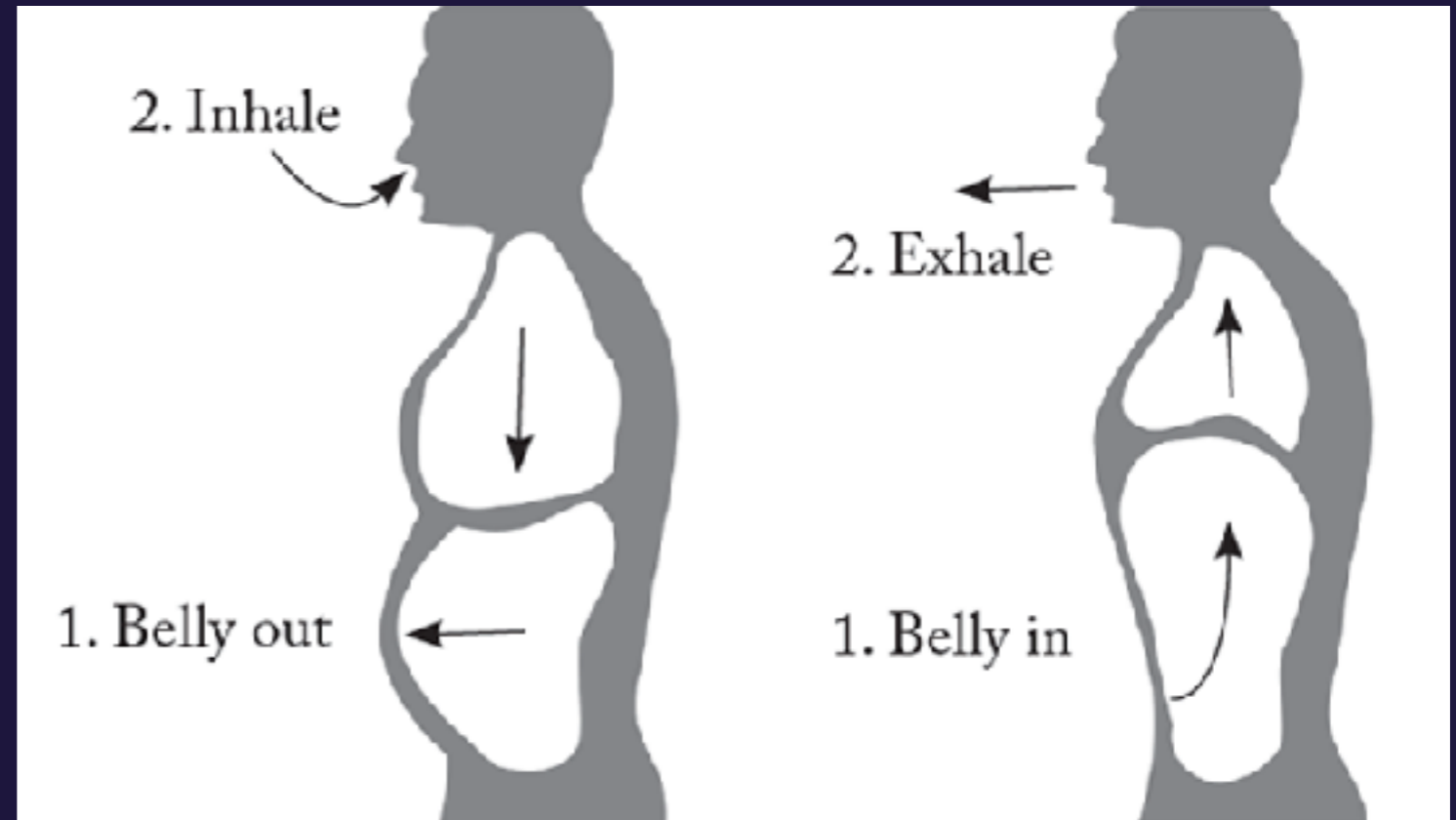
Diaphragm

Internal Skeletal Muscle

Shaped like a hat



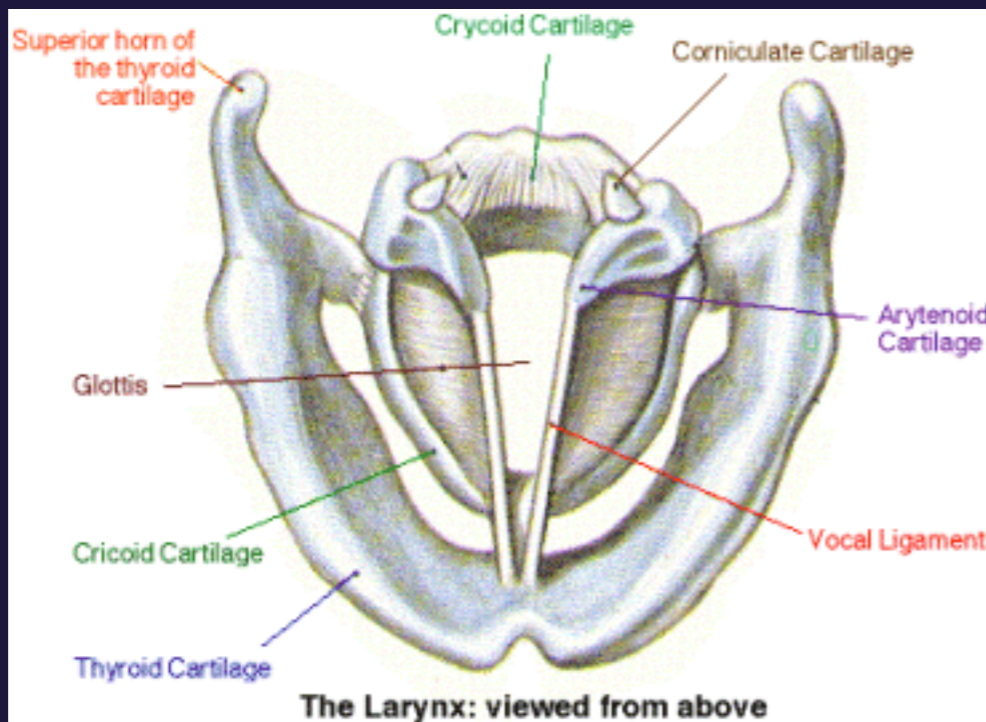
Types of Breathing



Low Breathing

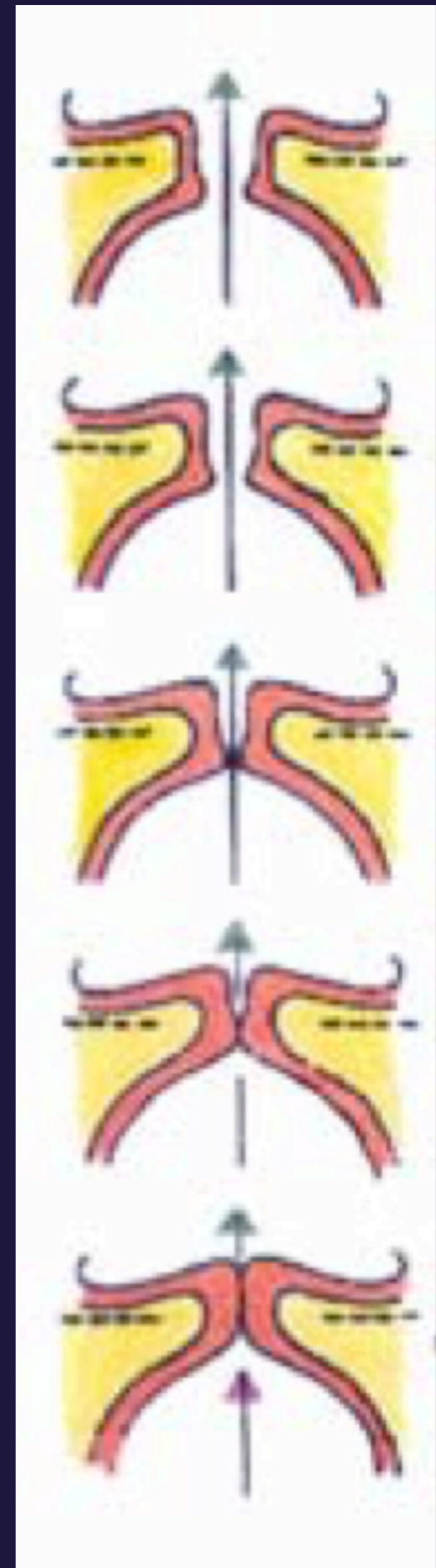
Characterized by pushing out lower abdomen

Larynx



Air comes up through vocal folds

Causes folds to vibrate



Phonation

When we want to sing/speak

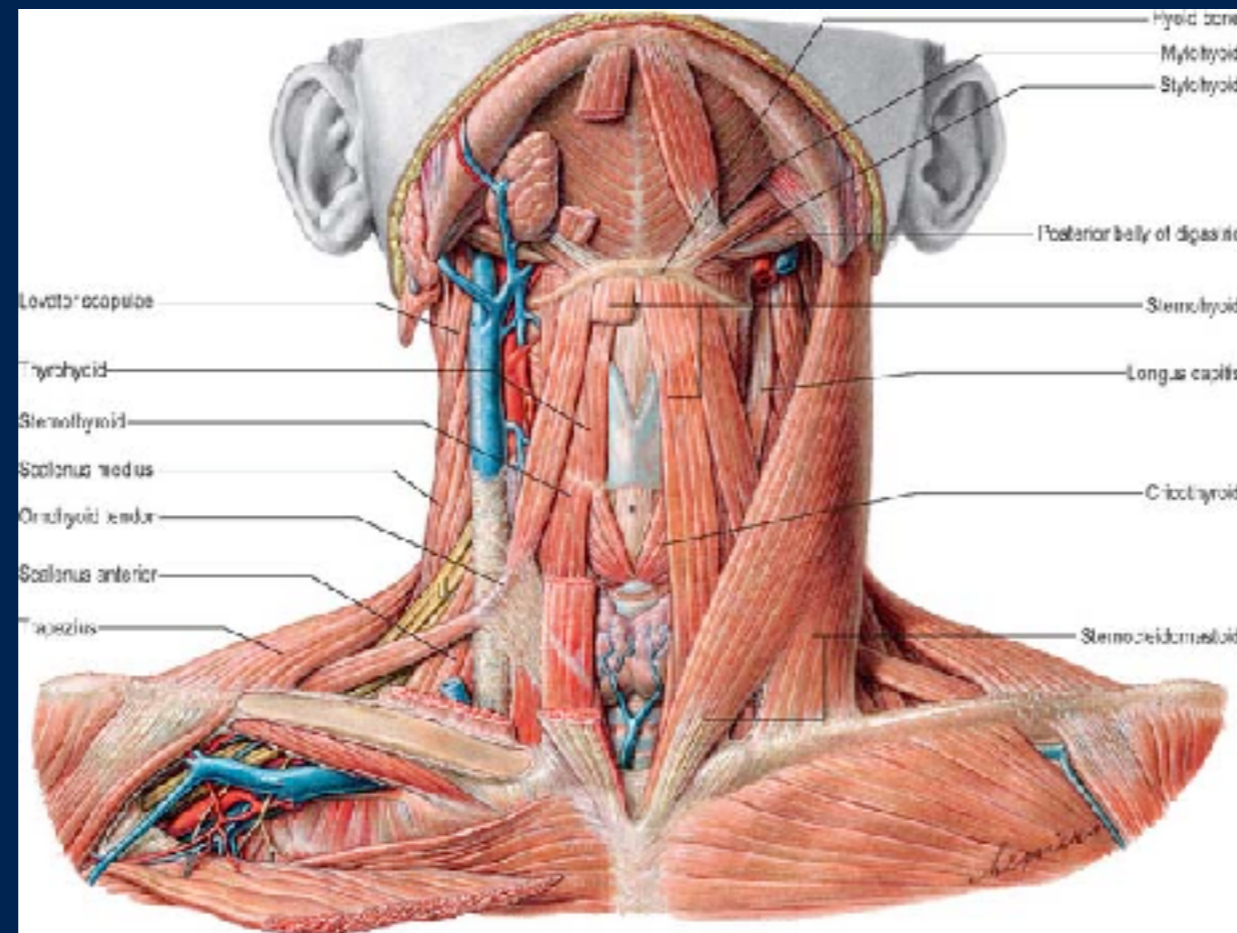
Process of Phonation https://youtu.be/Aoa_N1vQS4M

More:

High Speed Slo-Mo: https://youtu.be/Drns_eV9wWg

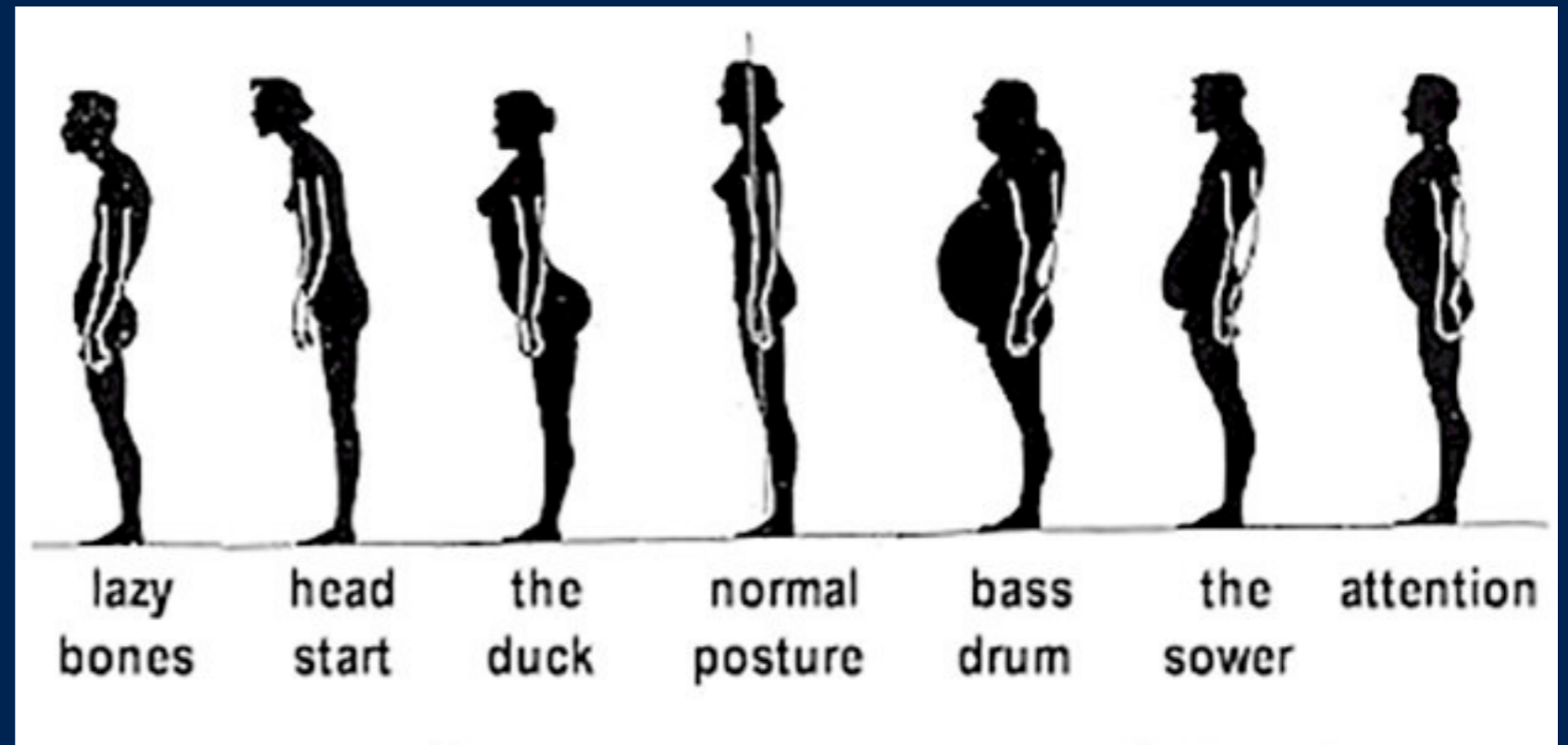
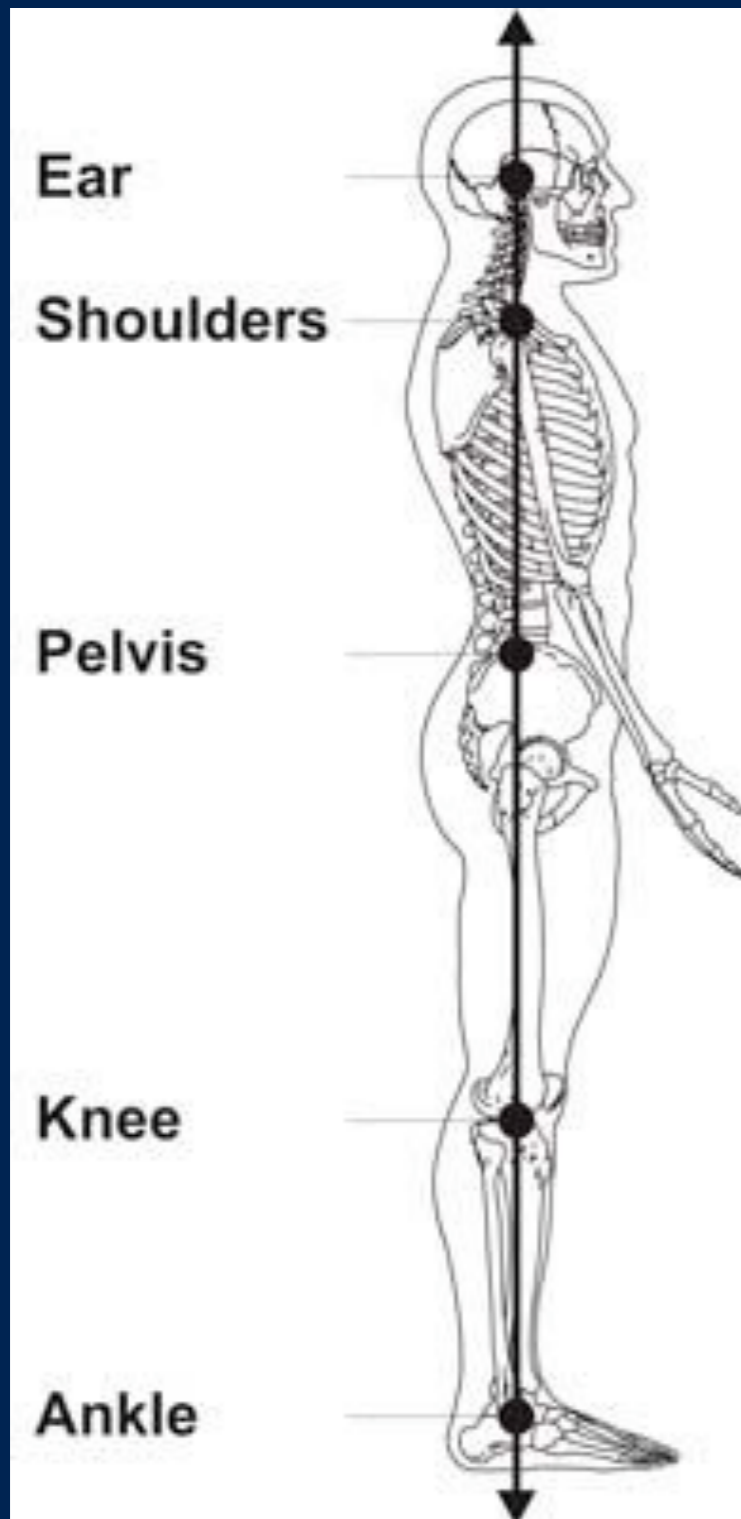
Healthy Stroboscope <https://youtu.be/9Tlpkdq8a8c>

Solutions To Improve



The key to efficient singing is to use as few muscles as possible and keep all other muscles relaxed

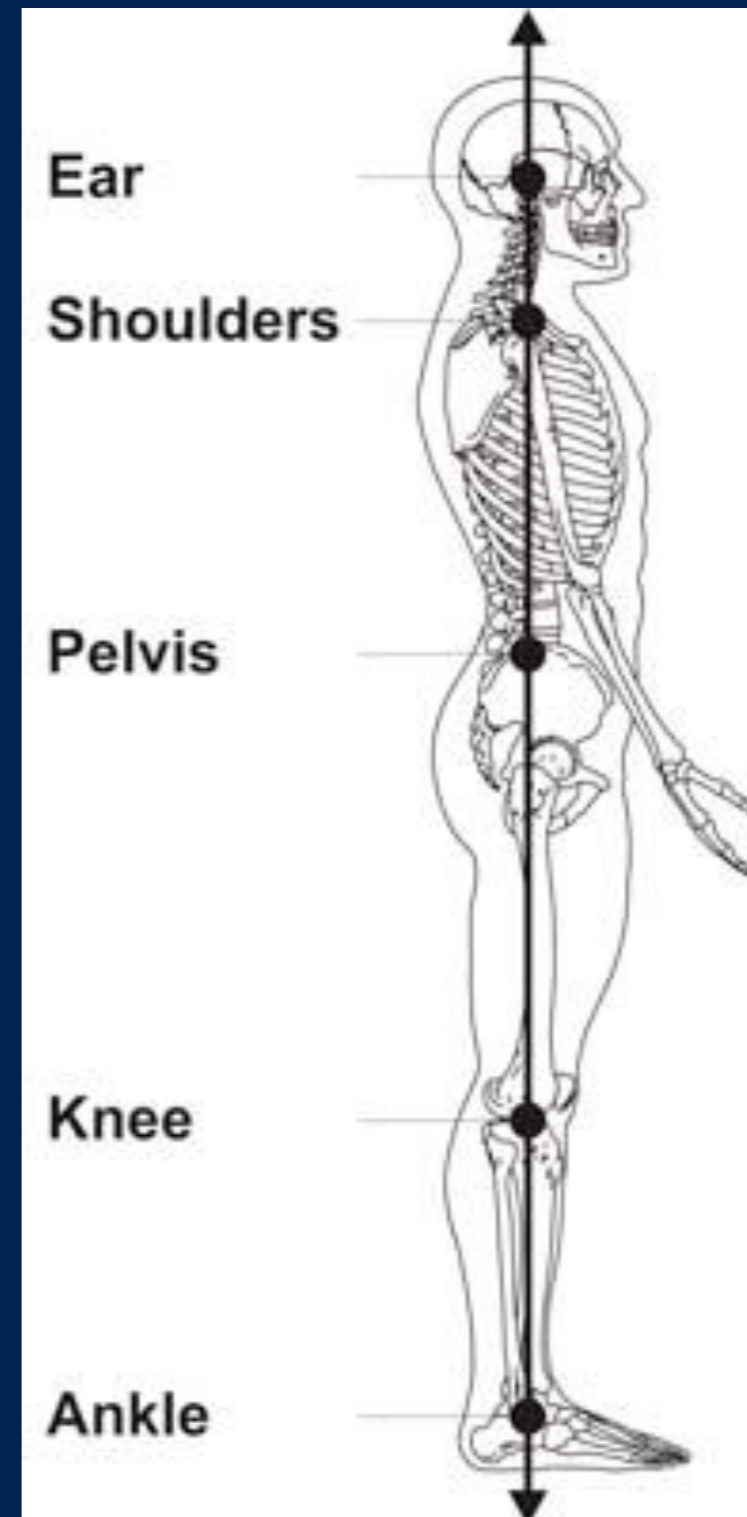
Good singing posture



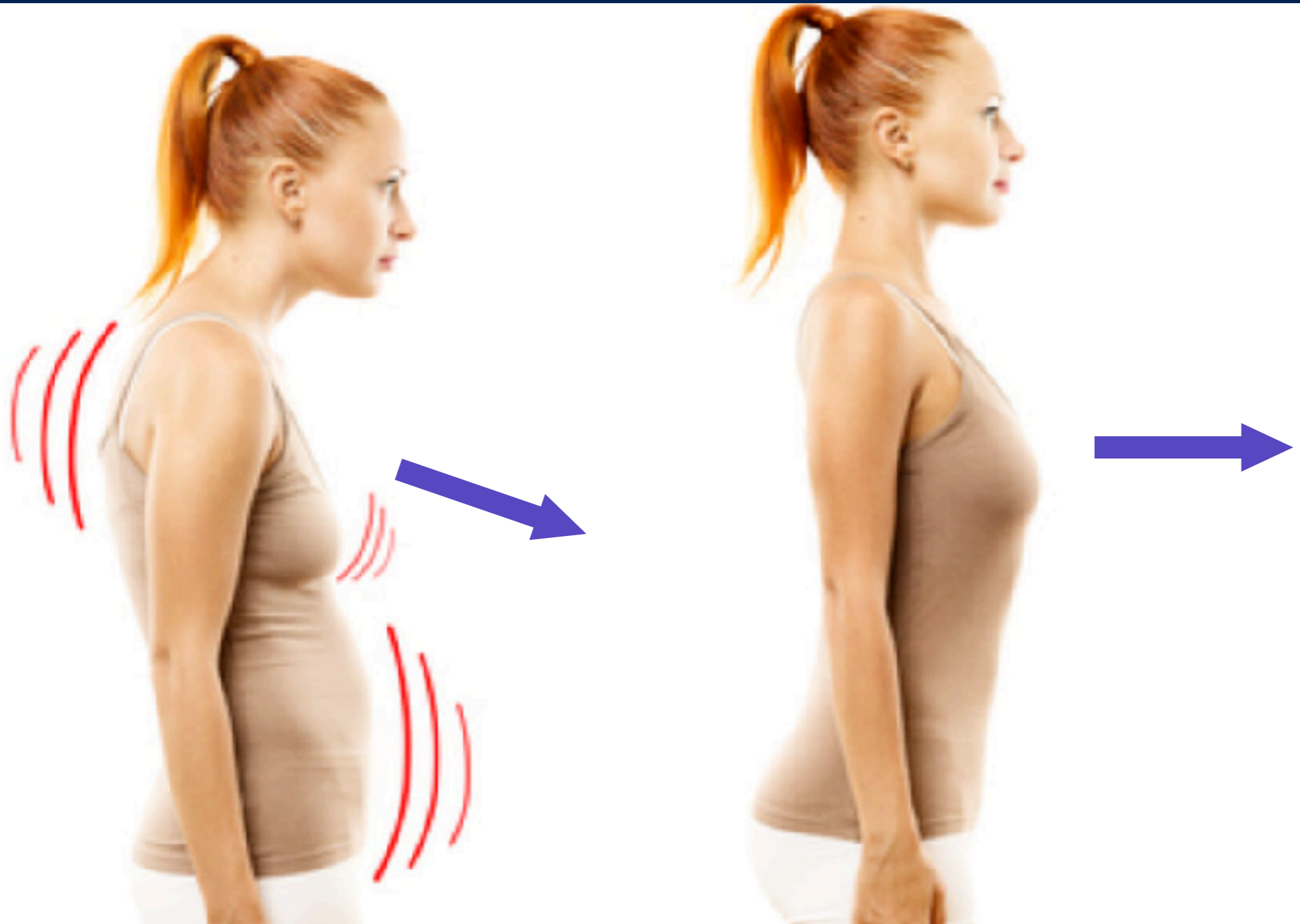
Ideal Posture

Alignment of

- Earhole
- Acromion (shoulder)
- Iliac Crest (hip)
- Knee
- Arch of foot

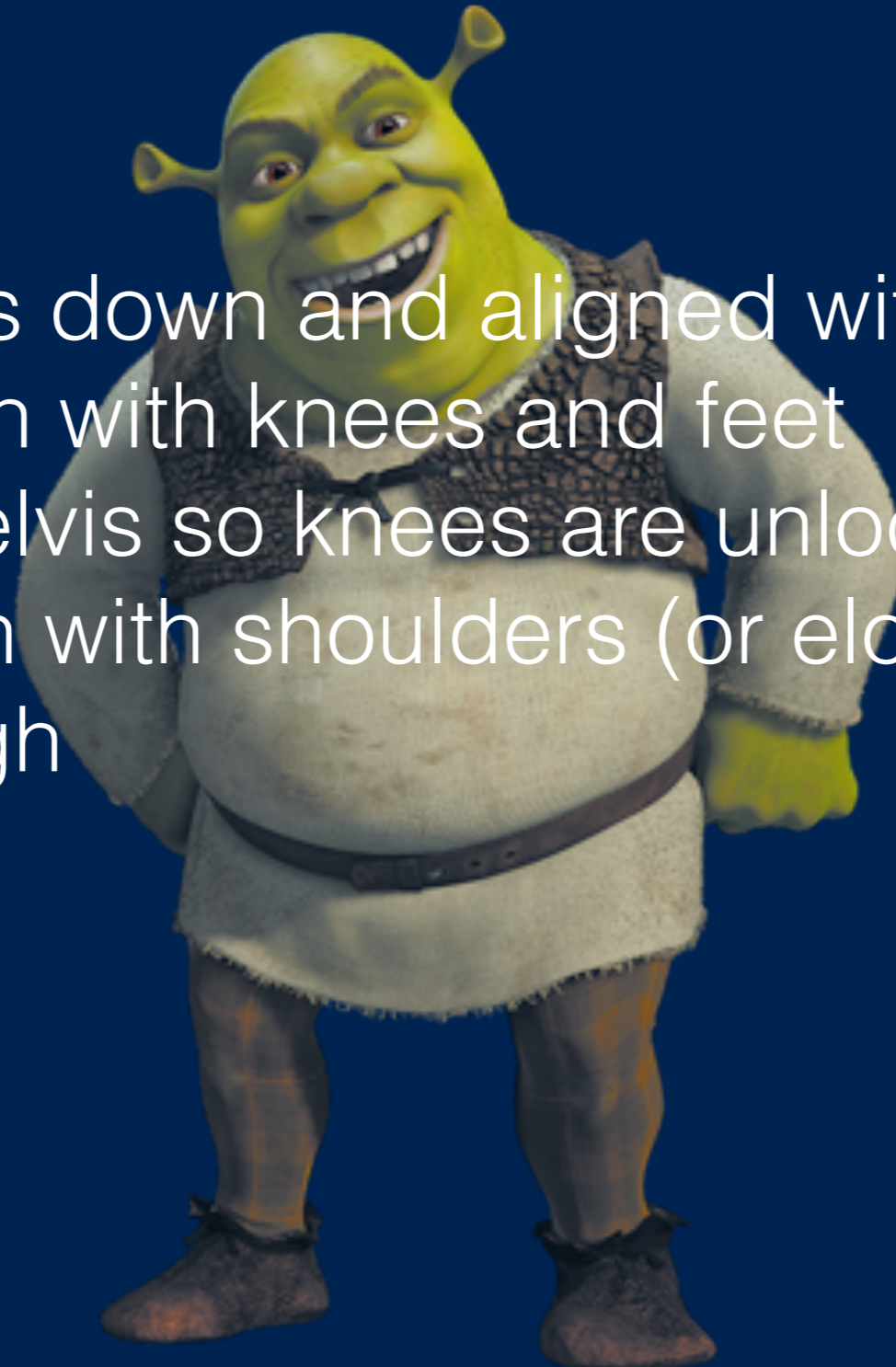


Ideal Posture



Improve Posture

- S. - Shoulders down and aligned with hips
- H. - Hips align with knees and feet
- R. - Rotate pelvis so knees are unlocked
- E. - Ears align with shoulders (or elongate neck)
- C. - Chest high



Inspiration

Expiration

Efficient Breathing

- Gentle expansion all the way around the middle of the body as one breathes, and an expansion downward within your body
- Silent, no gasps
 - No visible muscle tension
 - Resistance against collapsing the intercostal muscles
 - Feel the abdominal muscles deep in the lower abdomen contracting
- A resistance/antagonism between the intercostal muscles and the abdominal muscles

Thoracic cavity expands

External intercostal muscles contract

Diaphragm contracts

Diaphragm contracts

Thoracic cavity reduces

External intercostal muscles relax

Diaphragm relaxes

Poor Breathing

Ribcage collapsing

Gasping

Keeping Abdominals tight

Clavicular Breathing

Chest rises and falls during inhalation

Happens in many beginning students

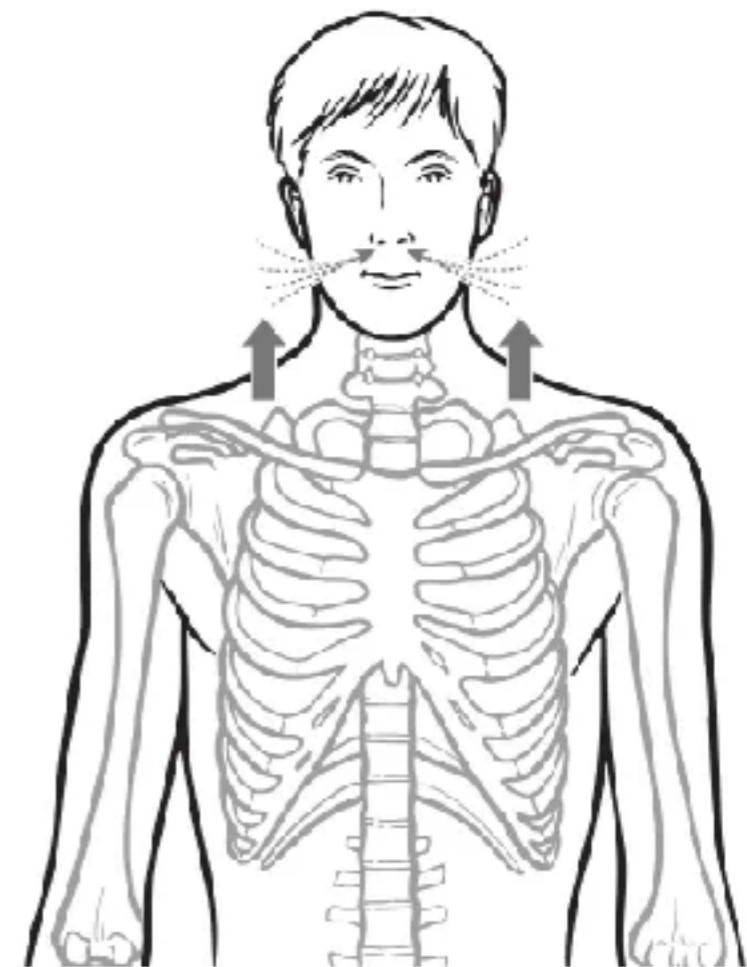


Figure 4 Faulty pattern of "upper chest" breathing. Note the vertical lifting of the chest and rib cage.

Exercises to Improve Breathing

Lie Down

Put a book on your abdomen (lying down)

Get on Hands and Knees

Inhale covering one nostril at a time

Pretend to sip through a straw

Hold two heavy objects, one in each hand

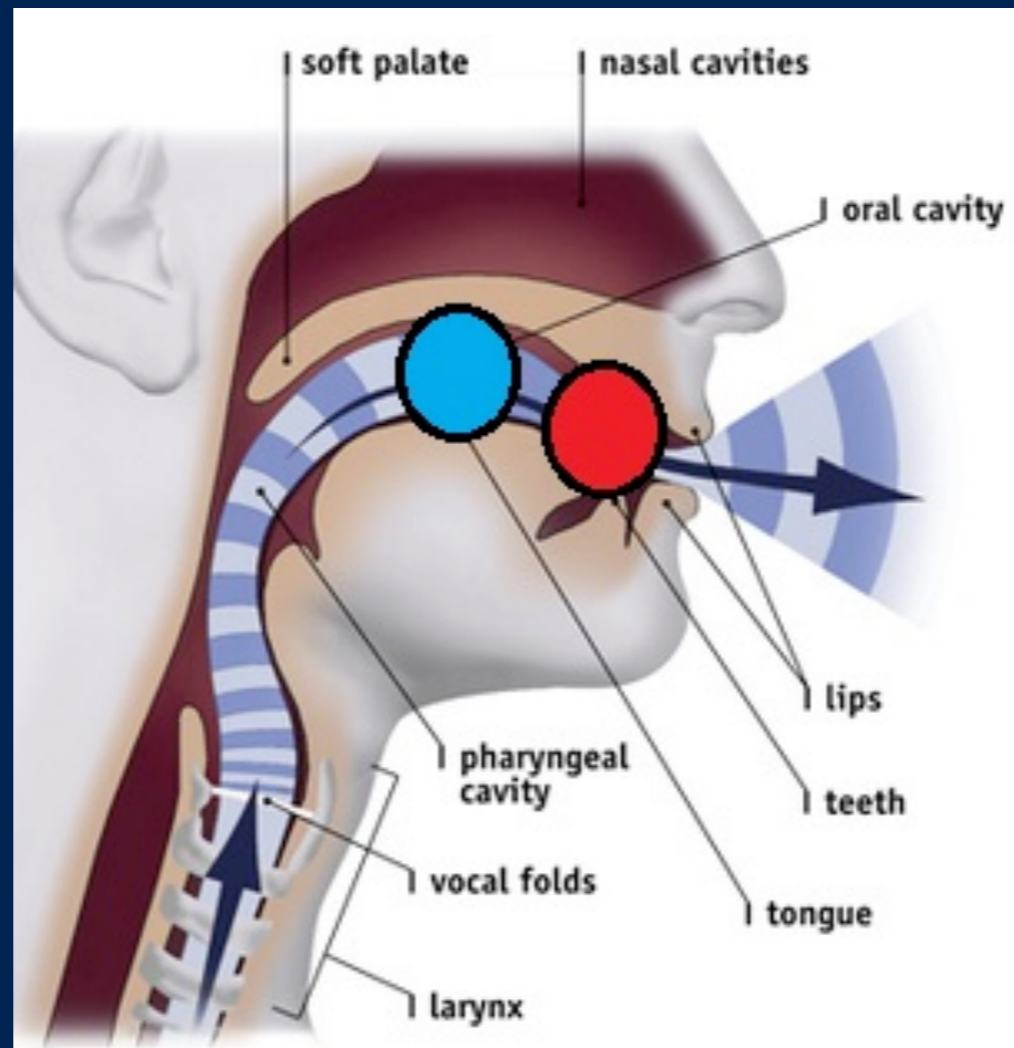
Lift Arms

Breathe with Surprise



Improve Resonance

Vocal Resonance: how “the basic product of phonation is enhanced in timbre and/or intensity by the air-filled cavities through which it passes on its way to the outside air.” (J. McKinney)

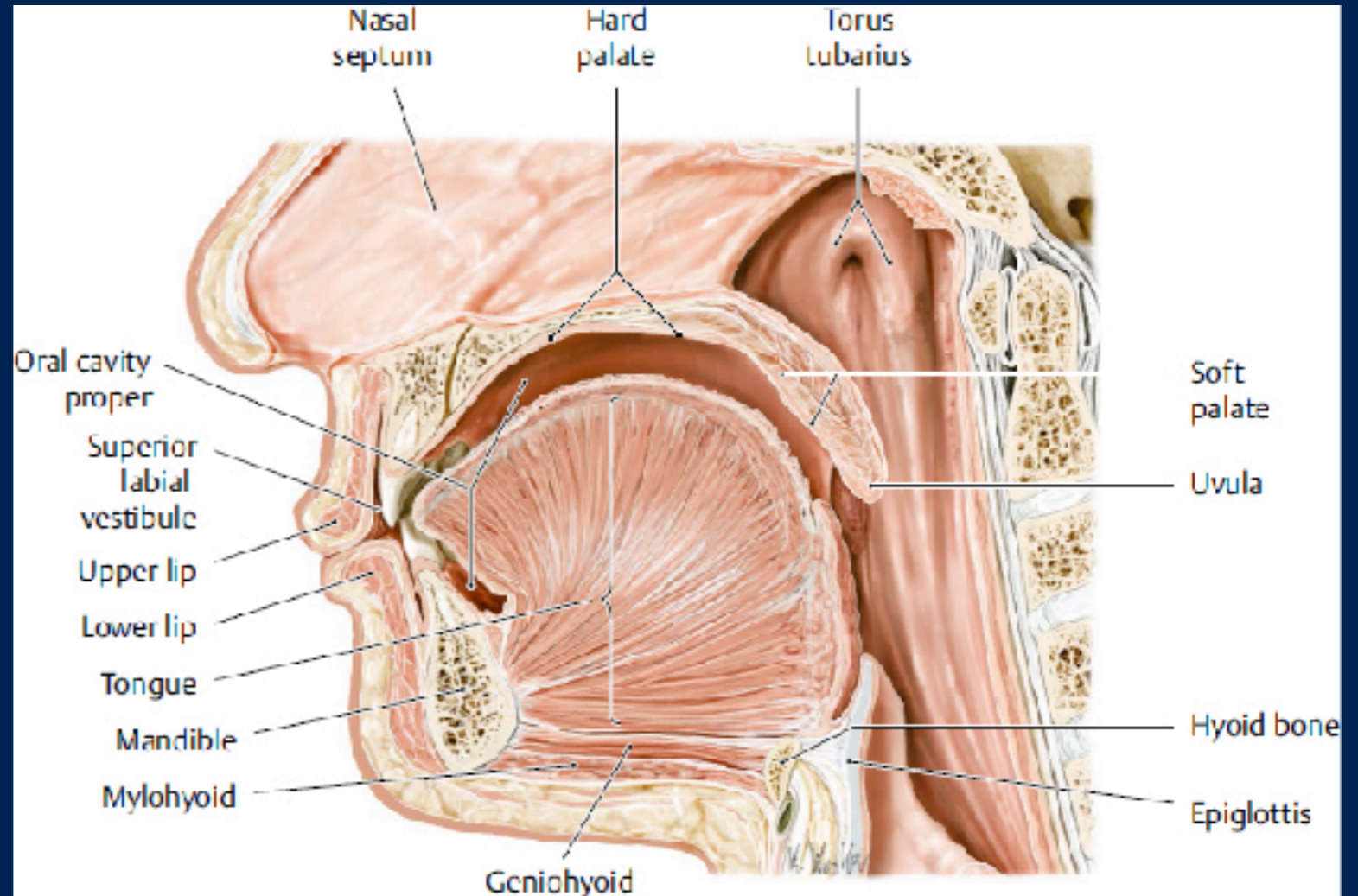


Resonance

Resonance Cavities

Oral Cavity

Teeth—> *Soft Palate*



Resonance

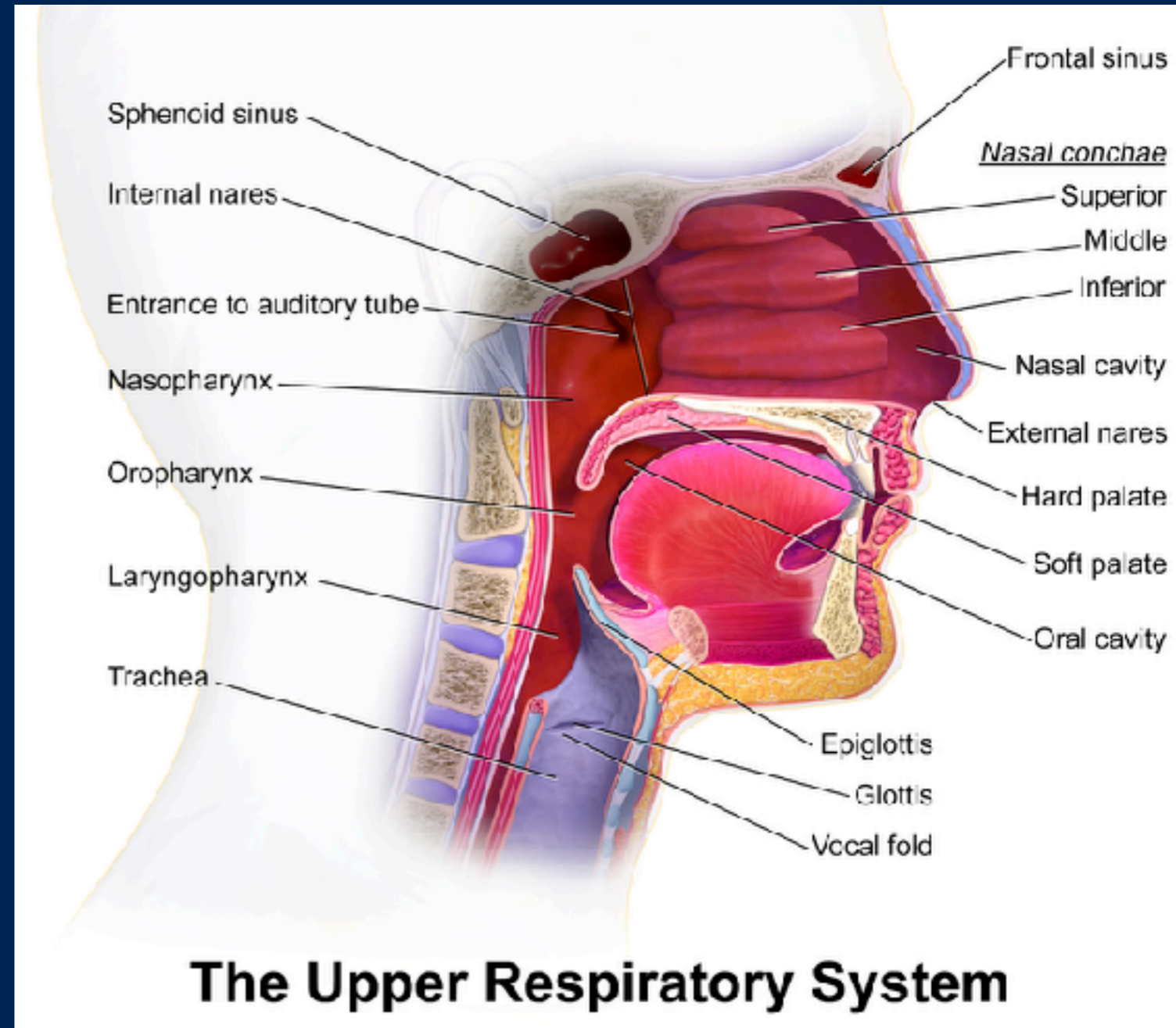
Resonance Cavities

Pharynx—Most important

Nasopharynx

Oropharynx

Laryngopharynx



Improve Resonance

- Reduce Tension through proper posture
- Tongue relaxed; Jaw loose
- Inward Smile
- Inhalation (drink your breath, inhale while saying “k” sound)

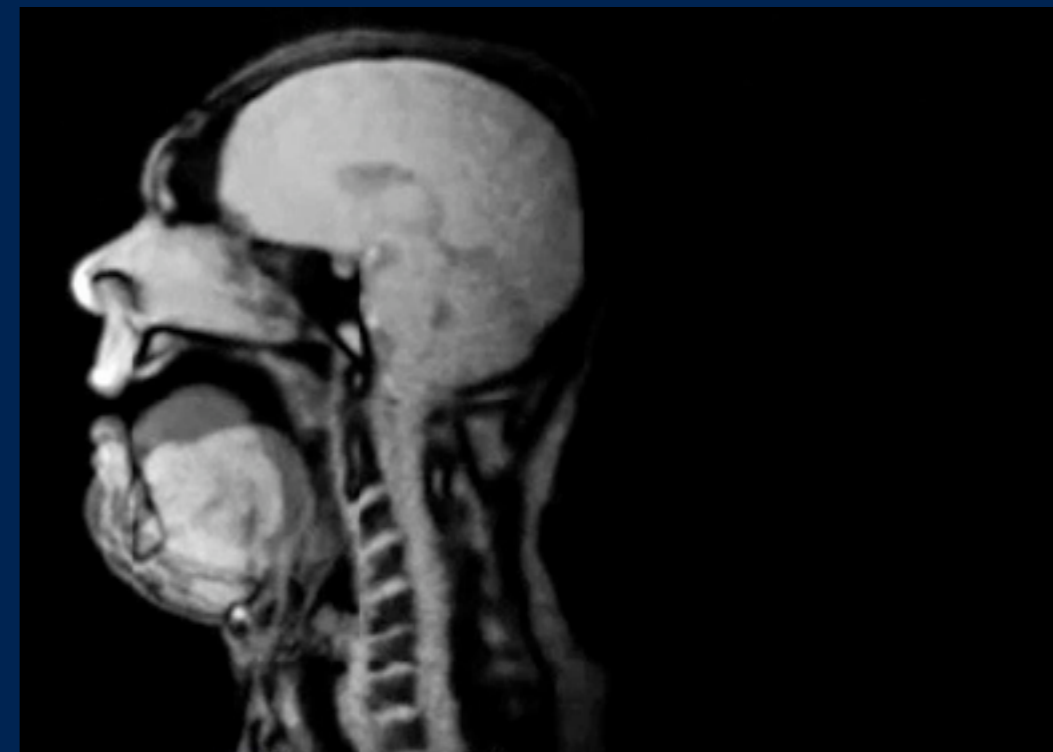
Resonance

Keeping the Pharynx open

Avoid “swallowing muscles” which raise larynx

Tyler Singing in MRI — <https://youtu.be/J3TwTb-T044>

Opera Singer in MRI — <https://youtu.be/f5SUhhfwxEI>



Vocal Health

Drink Water—stay hydrated https://youtu.be/Drns_eV9wWg

No smoking, avoid other irritants like alcohol

Don't Whisper

Get plenty of sleep

Daily Physical Activity

Avoid Indigestion



Signs of Vocal Abuse

- Glottal Fry—Popping sound in extreme low of vocal range
- Strain—Be aware of signs of vocal strain
- Raspiness, hoarseness in speaking voice
- Coughing—Try to avoid
- Whispering—Avoid

Vocal Strategies

Use Voice As Efficiently As Possible

- Proper Posture/Breathing
- Resonance
- Speak in middle of range

Vocal Health

- Drink Water—stay hydrated
- Don't Whisper, avoid coughing
- Get plenty of sleep
- Daily Physical Activity
- No smoking or other harmful irritants
- Avoid Indigestion/Acid Reflux

Other Strategies

- Vocal Rest between sessions
- Use a Microphone
- Take advantage of room acoustics— Walk Around Classroom, etc.
- Avoid Yelling as much as possible
- Avoid medications that may dry voice (antihistamines, menthol cough drops)