

2022

Introduction to Vocal Pedagogy

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WELCOME TO VOCAL PEDAGOGY!

YOUR GUIDE FOR THIS JOURNEY IS

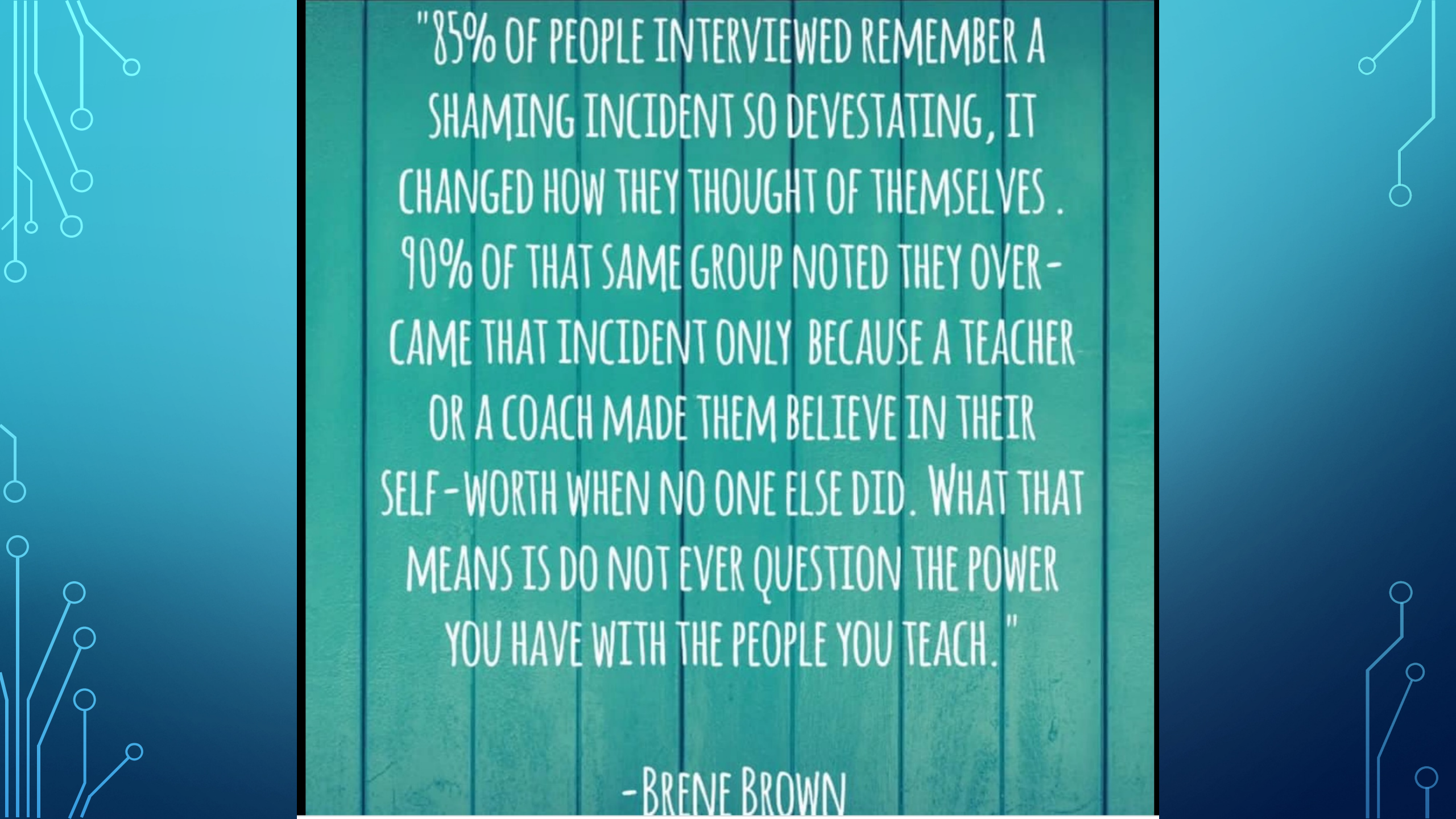
DR. JENNIFER PIAZZA-PICK.

WHAT IS VOCAL PEDAGOGY?

- The art and science of voice instruction
- Beauty, freedom, strength, and health
- What does this mean to us?
- It's all subjective!

EVERY CHILD IS A SINGER
UNTIL SOMEONE TELLS HER
SHE IS NOT
a singer.





"85% OF PEOPLE INTERVIEWED REMEMBER A SHAMING INCIDENT SO DEVESTATING, IT CHANGED HOW THEY THOUGHT OF THEMSELVES. 90% OF THAT SAME GROUP NOTED THEY OVERCAME THAT INCIDENT ONLY BECAUSE A TEACHER OR A COACH MADE THEM BELIEVE IN THEIR SELF-WORTH WHEN NO ONE ELSE DID. WHAT THAT MEANS IS DO NOT EVER QUESTION THE POWER YOU HAVE WITH THE PEOPLE YOU TEACH."

-BRENE BROWN

3 QUESTIONS A VOICE TEACHER ASKS

What is the sound I am hearing that I want to help?

What is causing it to sound that way?

What am I going to do about it?

There are no magic vocal exercises!

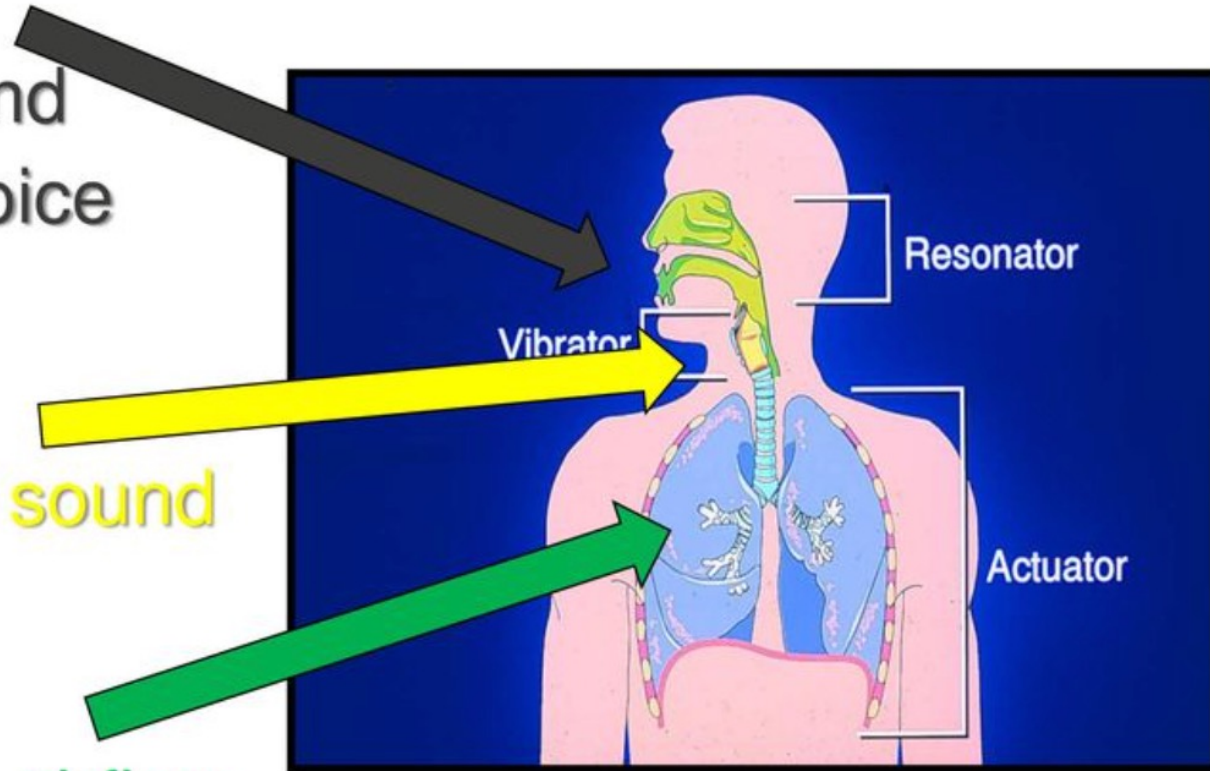


How does the voice work?

Resonator –
Shapes the sound
into human voice

Vibrator –
Converts air into sound

Power Supply –
Lungs provides airflow



the vocal flow chart

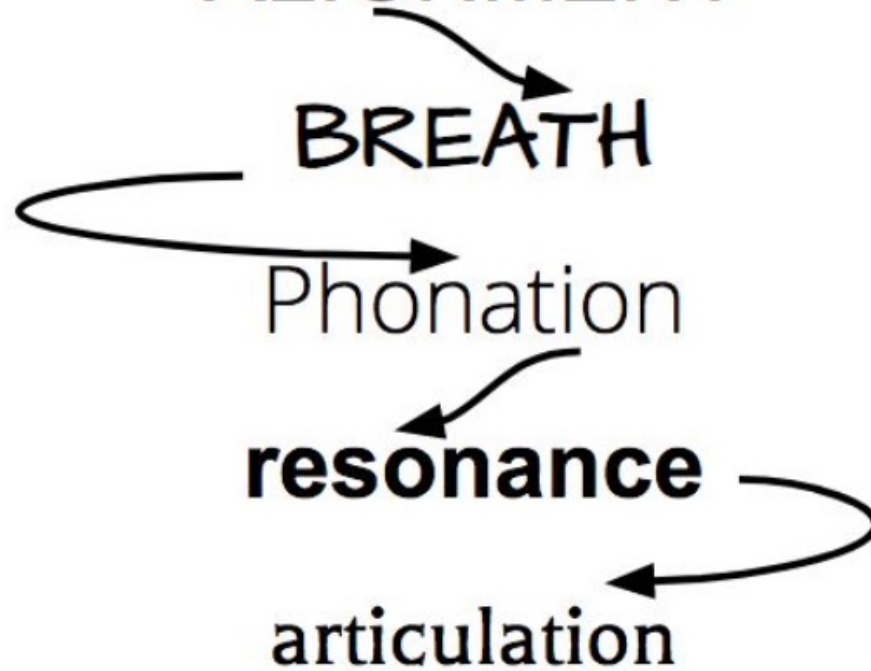
ALIGNMENT

BREATH

Phonation

resonance

articulation





Correct Posture

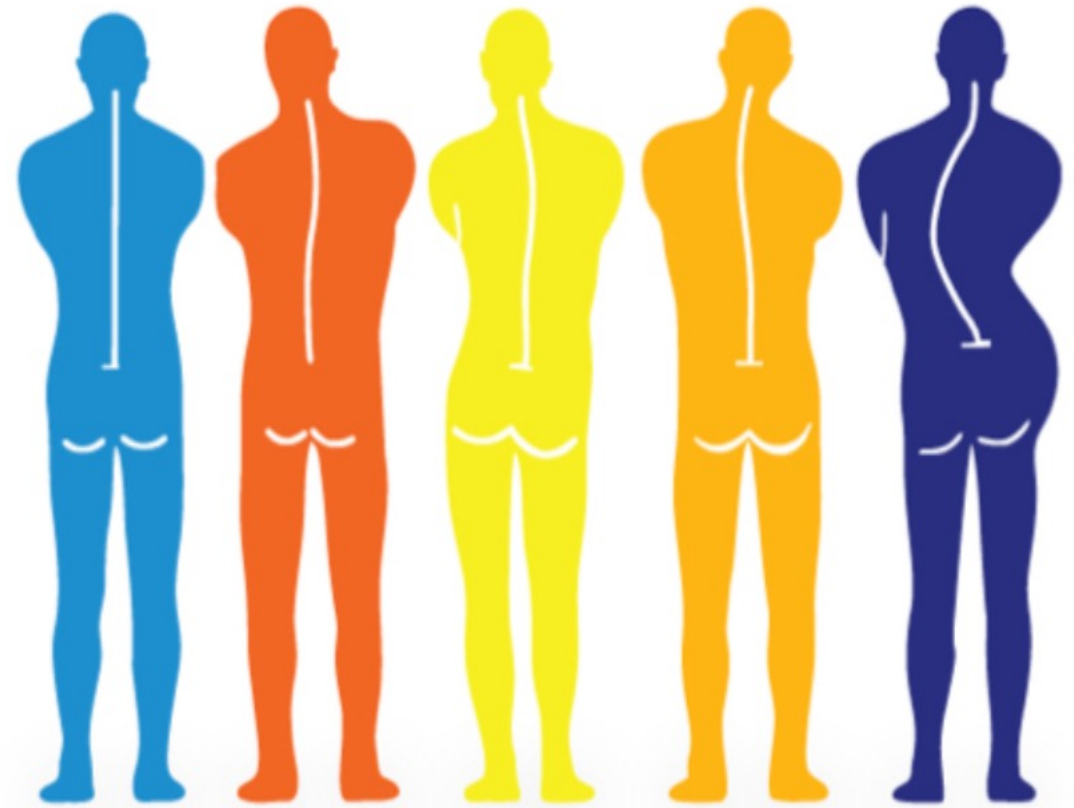
Hollow Back

Flat Pelvis

Slumping Posture

Military Posture

Round Shoulders



Correct

High Shoulder

High Hip

Head Tilt

Severe Scoliosis

Figure 2

The singer's correct position or stance is demonstrated on the left with feet squared off, and on the right with one foot in front of the other. This "noble" posture enables optimal breath management as well as good flexibility for expression and movement, and contributes to a pleasant appearance when performing.



**The "noble" posture
with feet squared**



**The "noble" posture
with one foot in front of the other**

VOCAL TIP

Improving your stance and singing with correct posture is one of the easiest ways to improve your singing voice.

STAND UP STRAIGHT & SING!



A decorative graphic on the left side of the slide, consisting of a network of white lines and circles on a blue background, resembling a circuit board or a neural network. The lines are vertical and horizontal, with some diagonal connections, and the circles are small and white.

RESPIRATION

IE. BREATHING

WHY POSTURE = BREATHING

At some point in your childhood, a well-meaning teacher or relative probably directed you to “sit up straight.” And, if your posture was deemed really “bad,” you were likely cued to force your shoulders back to open your chest.

If you tried conforming with that cue, you undoubtedly found it impossible to sustain. That's because you can't fix something that's inherently fluid by treating it like it's static.

Posture is a living, breathing element of our being. In fact, our posture and our breathing are so intrinsically related I'd argue they are one and the same.

--excerpt from Pt. 2 of Dana Santas' "Breathe Better to Live Better" series via



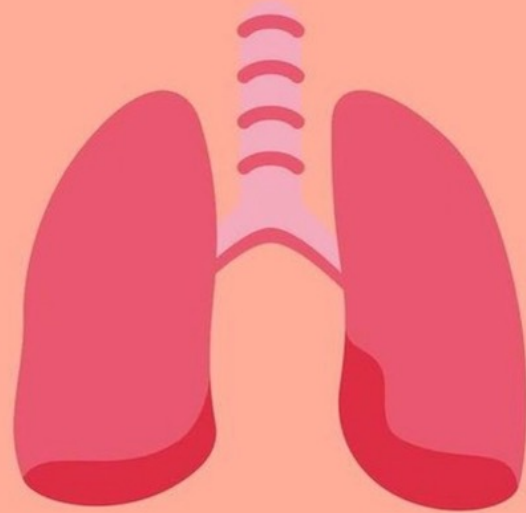


voicedped • Following



CHECK IT OUT:

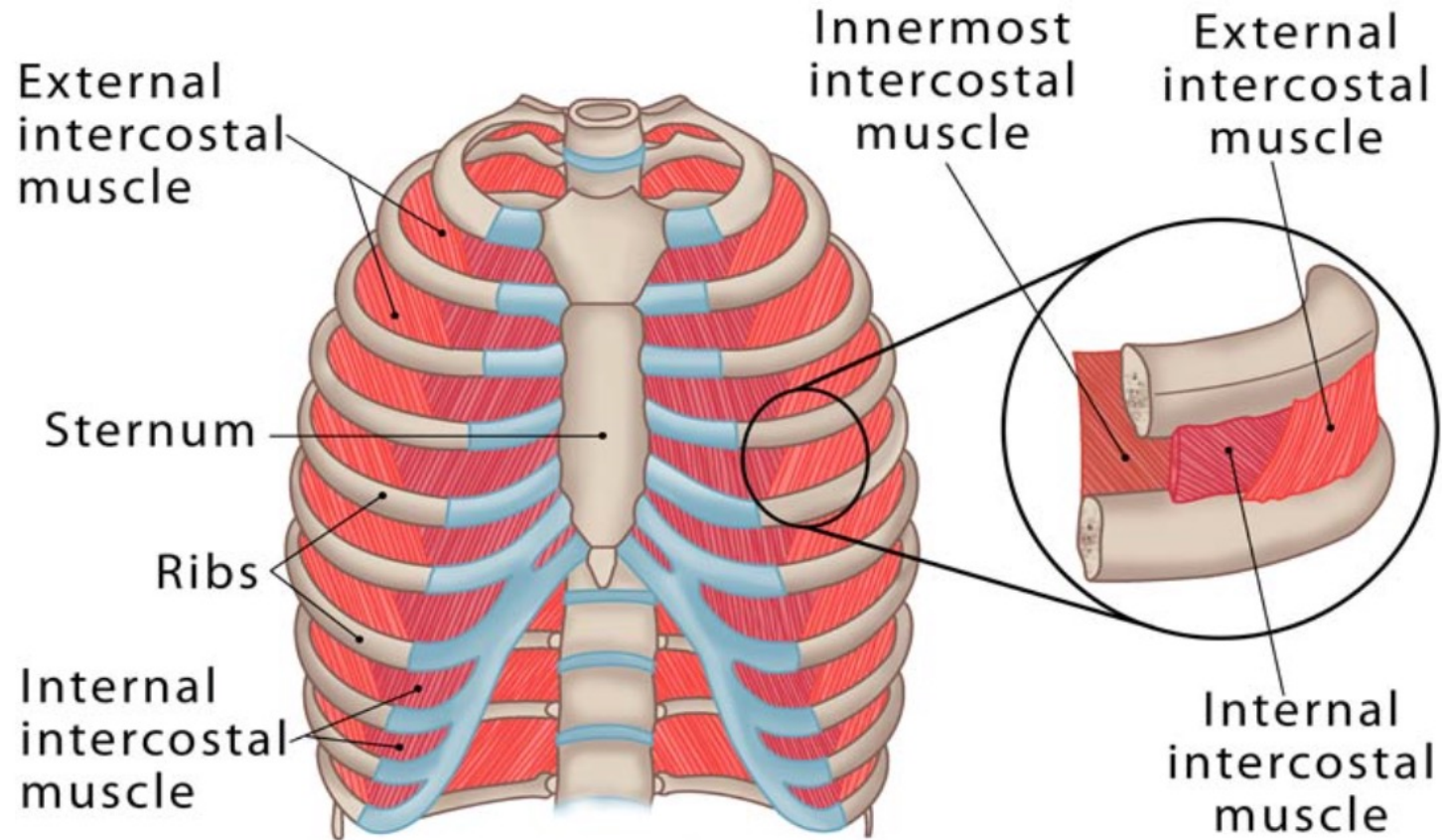
Inspiration



Verb: the drawing in of breath, inhalation

Noun: a sudden brilliant, timely
or creative idea

Intercostal Muscles

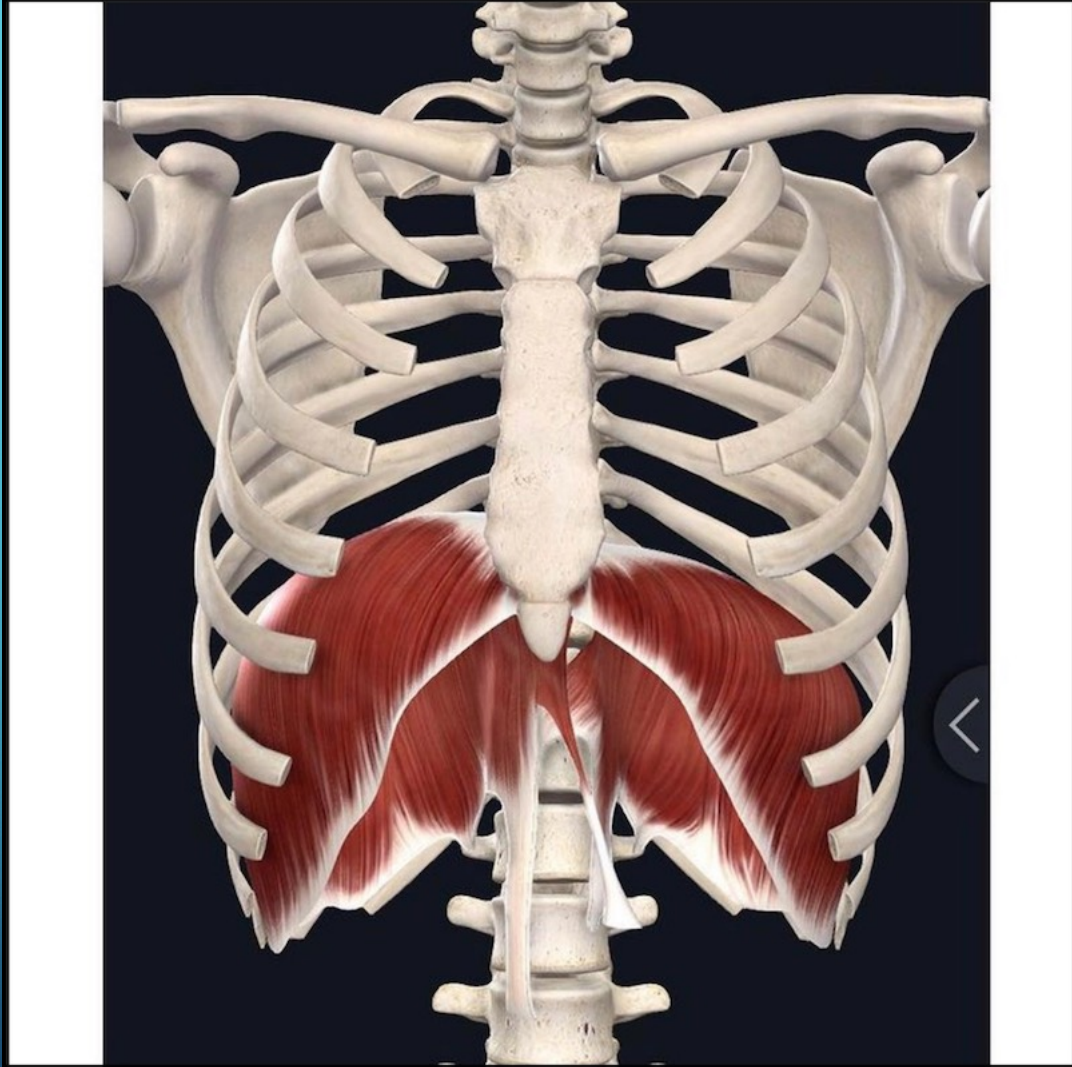


© TheRespiratorySystem.com

Intercostal Muscles



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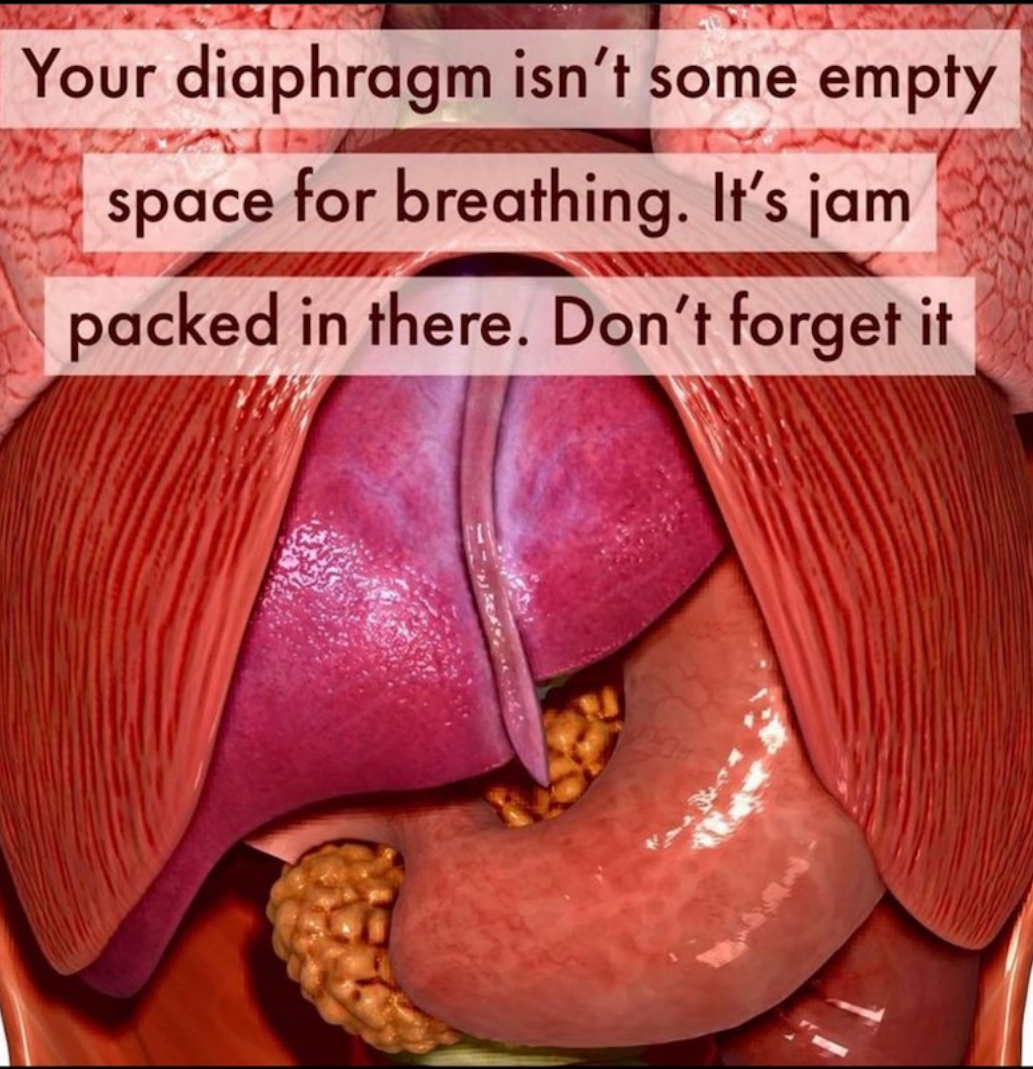


3-D VIEW OF THE DIAPHRAGM





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the_inside_voice · Following



How to inhale when singing?



When inhaling for singing, focus more on lifting your sternum and expanding your ribcage instead of jamming your belly out.

PRIMARY MUSCLES OF EXHALATION (SINGING)

- Internal intercostals
- Rectus abdominus
- Internal and external obliques
- Transverse abdominus
- Quadratus lumborum

NORMAL RESPIRATORY CYCLE



BREATH MANAGEMENT

- controlling the steady airflow being expelled from the lungs after taking the large inhale for singing

BREATHING TECHNIQUES

- **Clavicular breathing** - lifting of the chest and shoulders. Not advocated by voice professionals, but often seen in the general populace when singing. The problem is that there is no muscular antagonism on the exhale, so we have trouble regulating the air flow.
- **Thoracic breathing** - the rib cage expands. Helpful for muscular antagonism.
- **Abdominal breathing** - rely solely on the diaphragmatic contraction and ignore the ribs.
- **Thoracic- abdominal breathing - appoggio** - balance of these two methods and often employed by teachers.

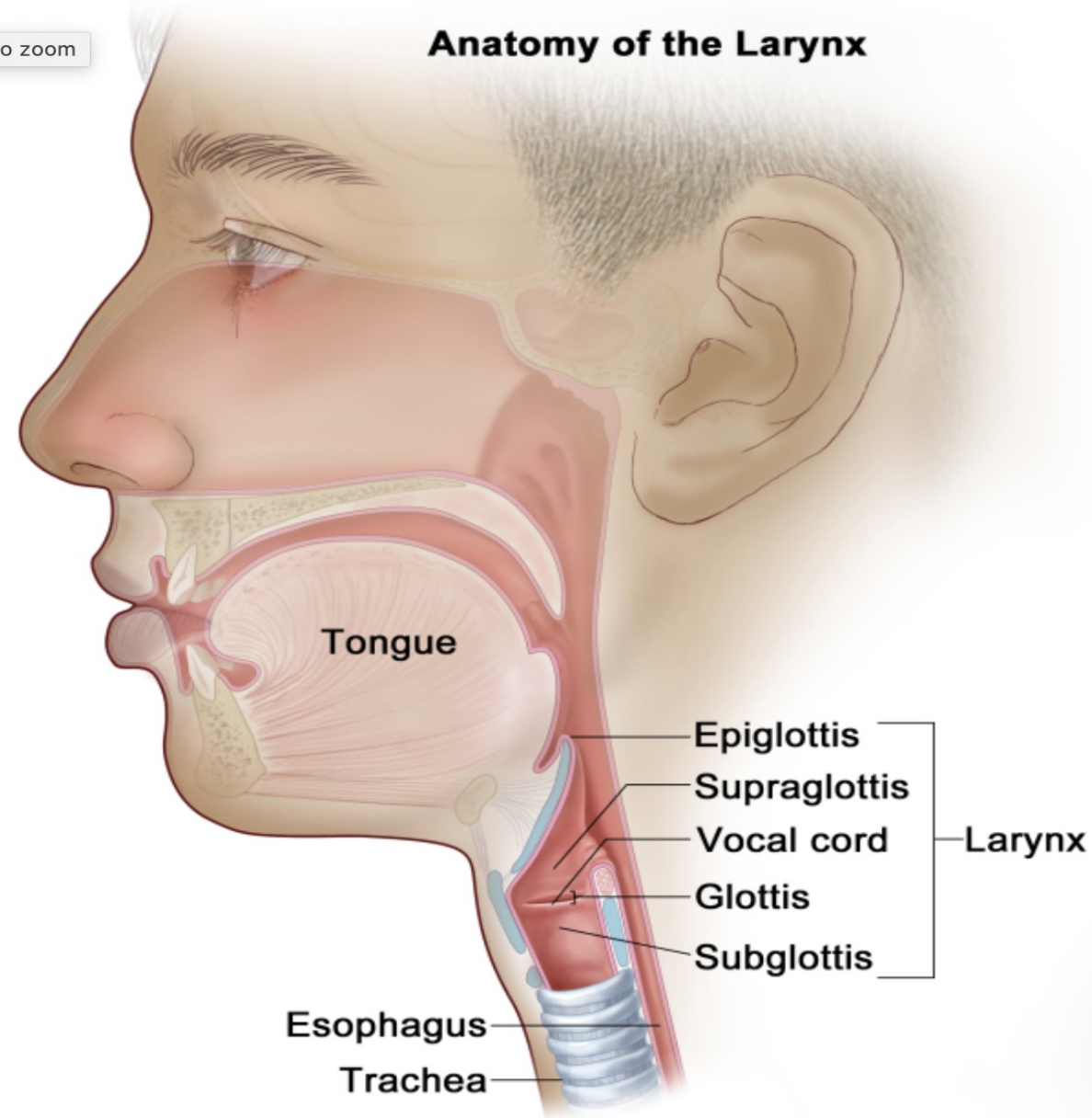


PHONATION

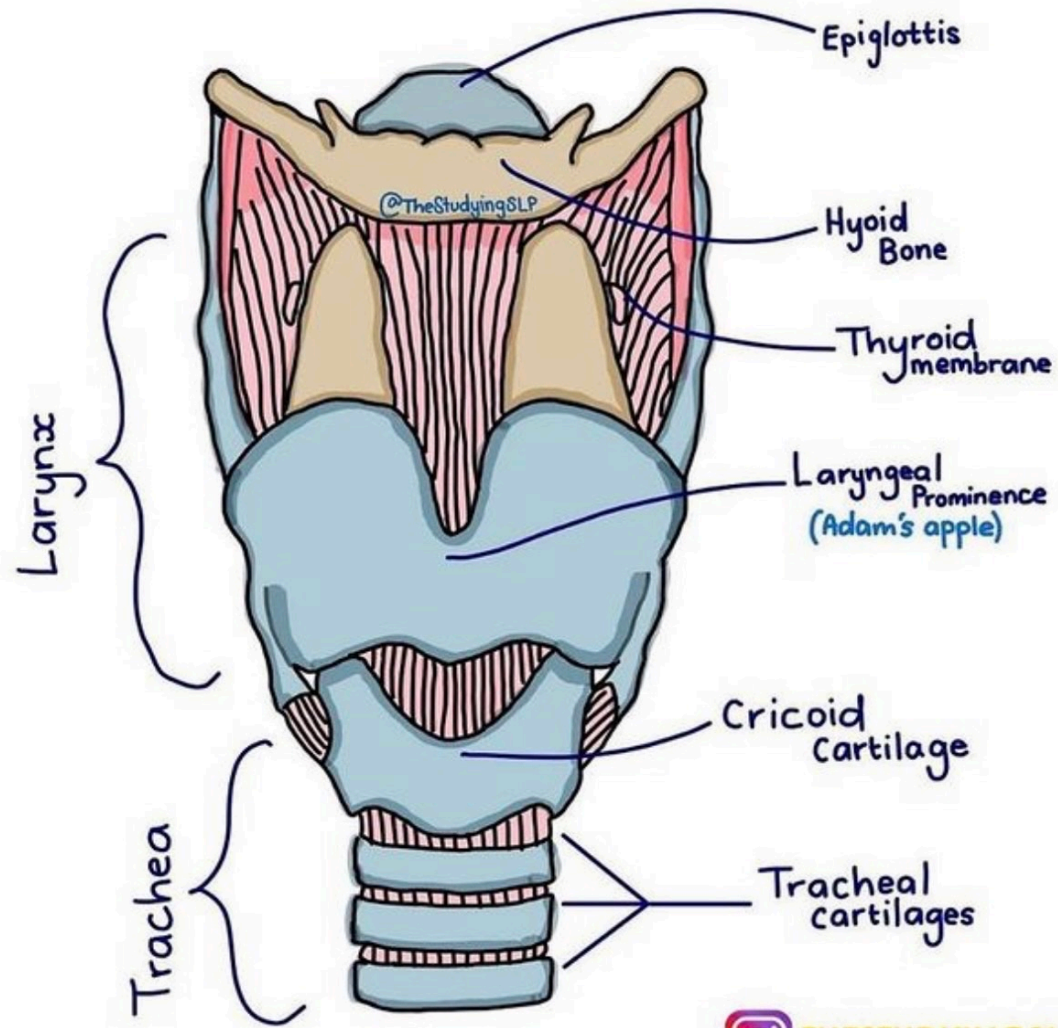
THE VIBRATING SOURCE OF THE VOICE

Click on image to zoom

Anatomy of the Larynx

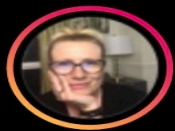


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INTERNAL LARYNGEAL STRUCTURE





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VOCAL FOLDS



NOT TESTOSTERONE INFLUENCED

12.5mm - 17.5mm



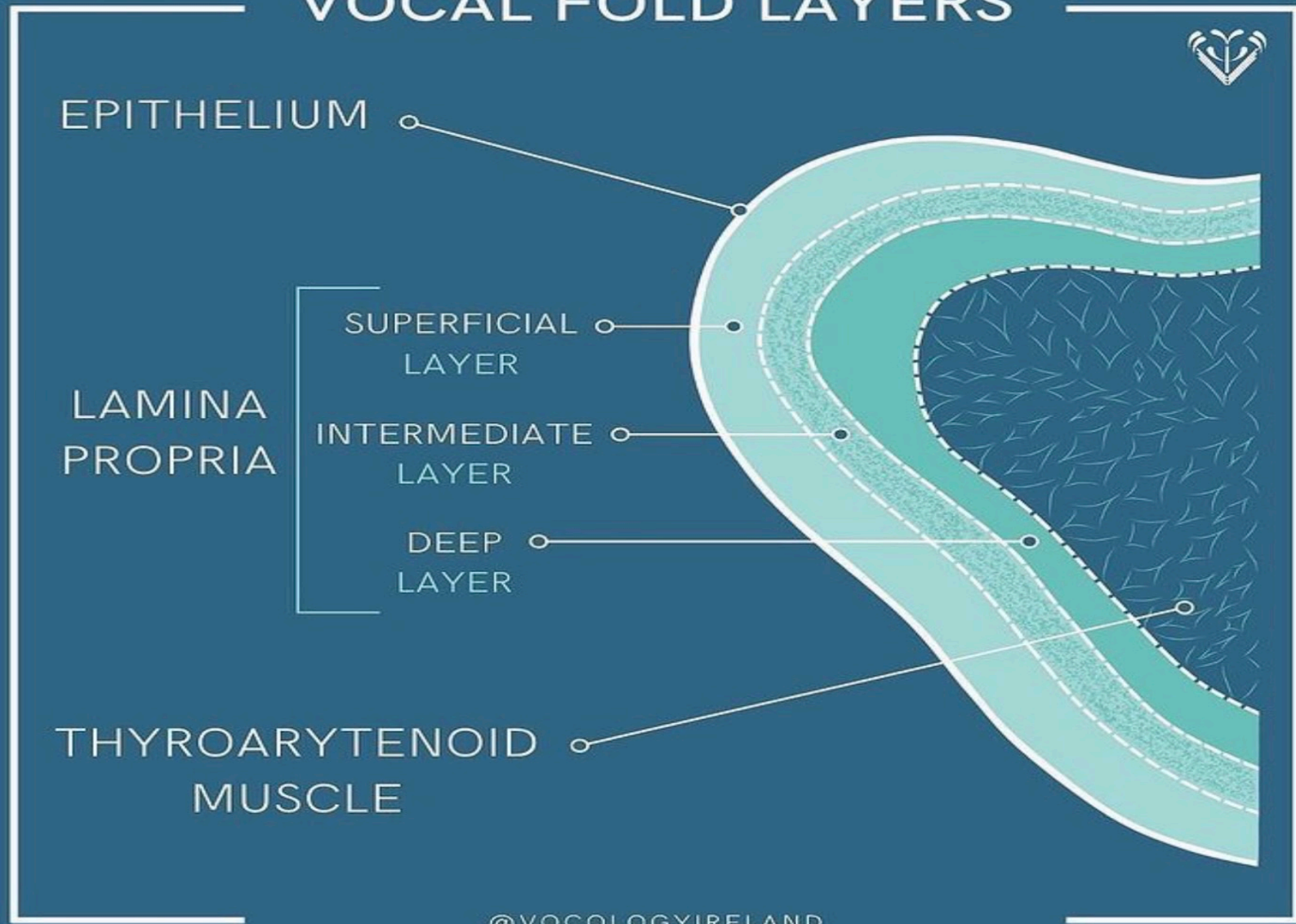
17mm - 25mm

what size
are my vocal
folds?

TESTOSTERONE INFLUENCED

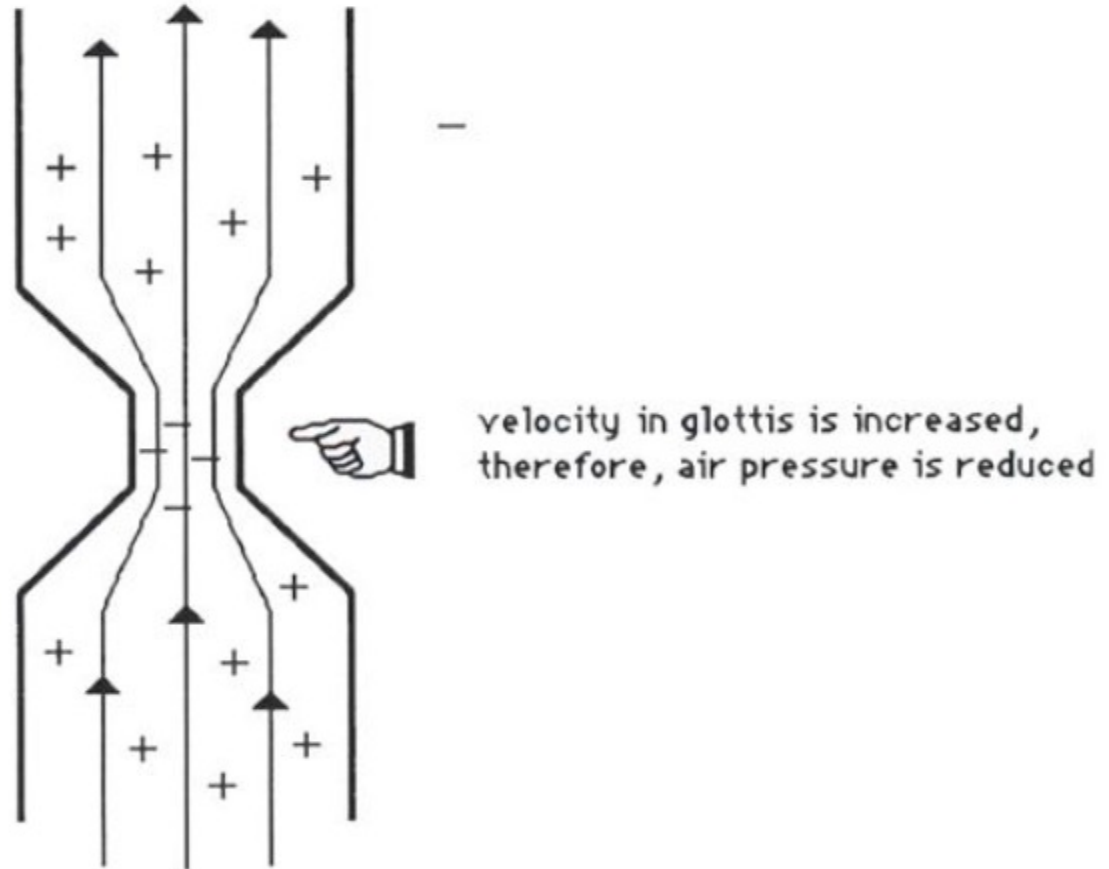


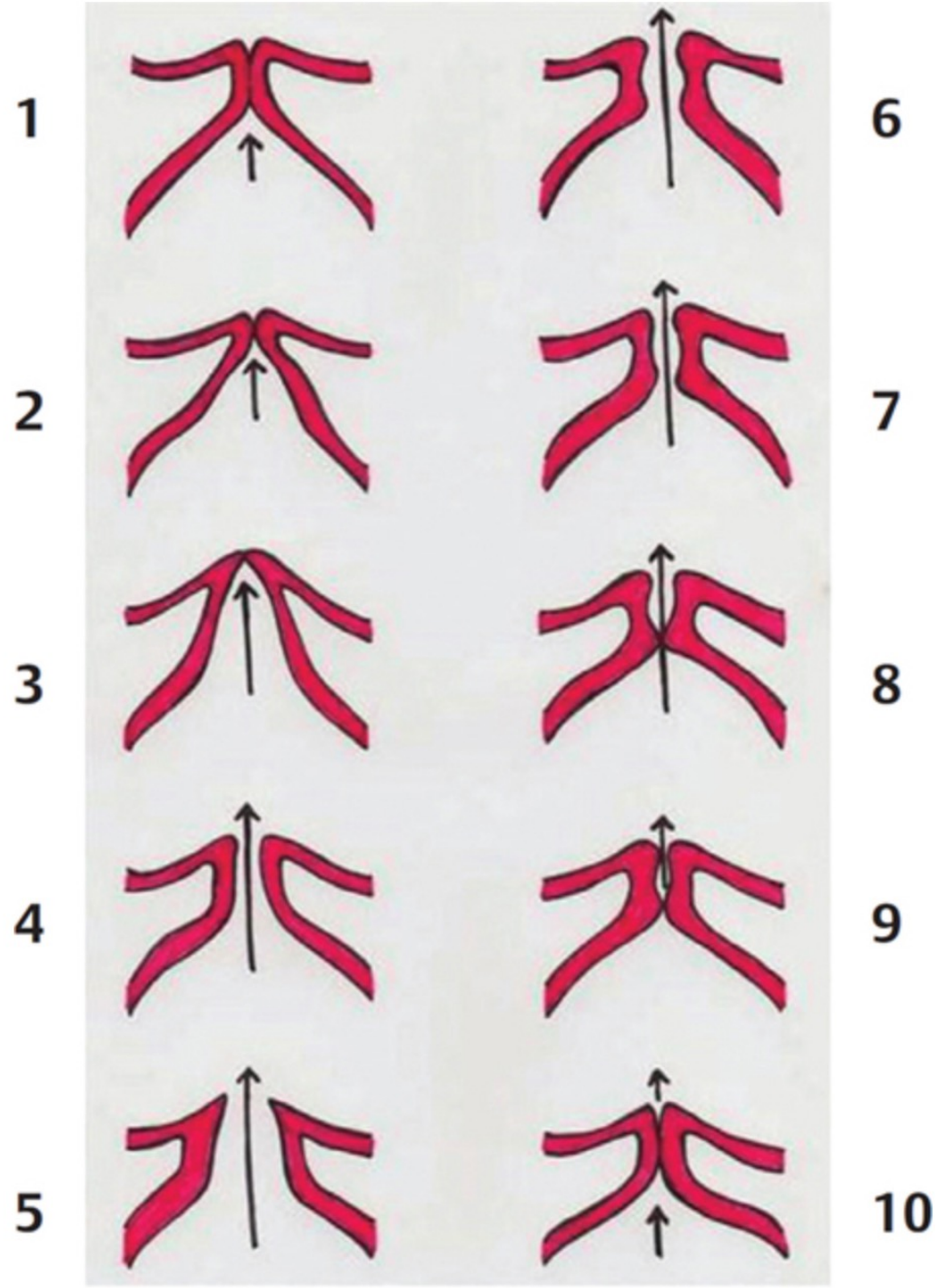
VOCAL FOLD LAYERS



Bernoulli Effect

- As air velocity increases, air pressure decreases.









TYPES OF ONSETS

- Breathy – too little muscle and air pressure
- Pressed – too much muscle and Air pressure
- Coordinated – muscle and air pressure are just right



SOVTS

SEMI-OCCLUDED VOCAL TRACT
EXERCISES



VOCAL ARTICULATION

SHE SELLS SEASHELLS BY THE
SEASHORE.

Jaw, tongue, and pharynx/palate

THE JAW

JUST CALL ME THE ONE
AND ONLY
MANDIBLE.

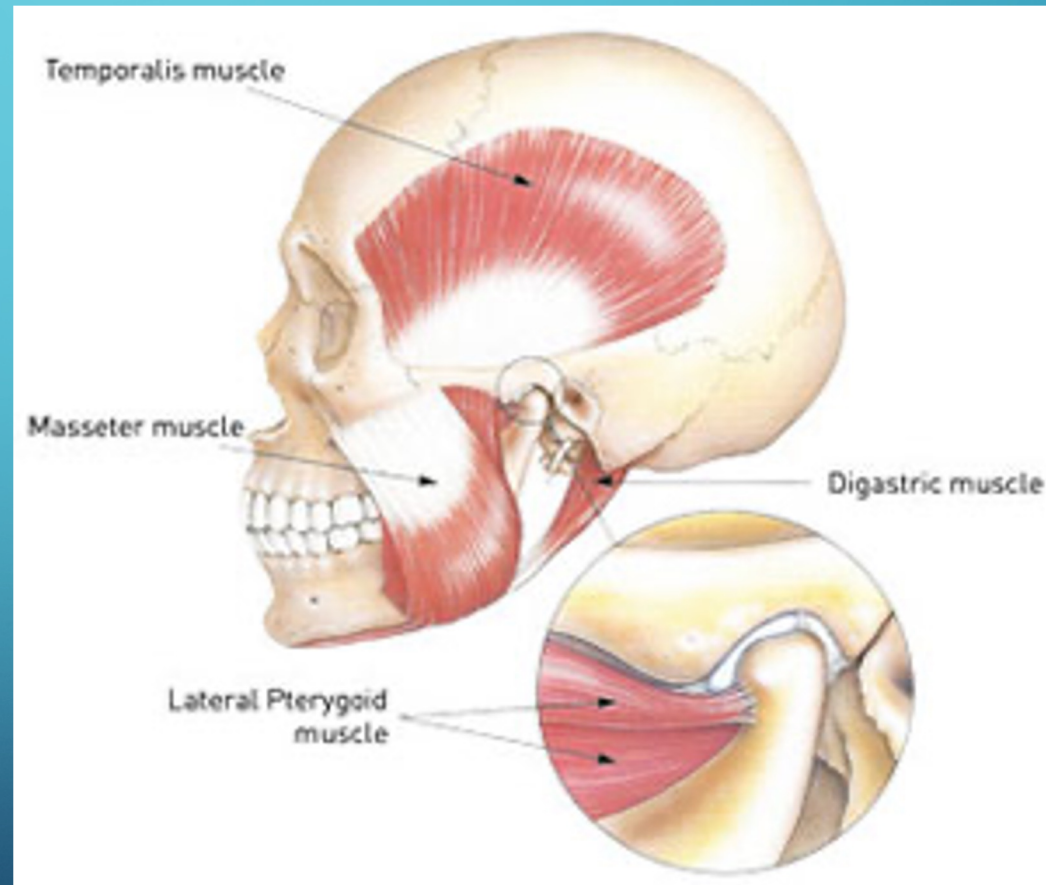


MANDIBULAR ELEVATORS

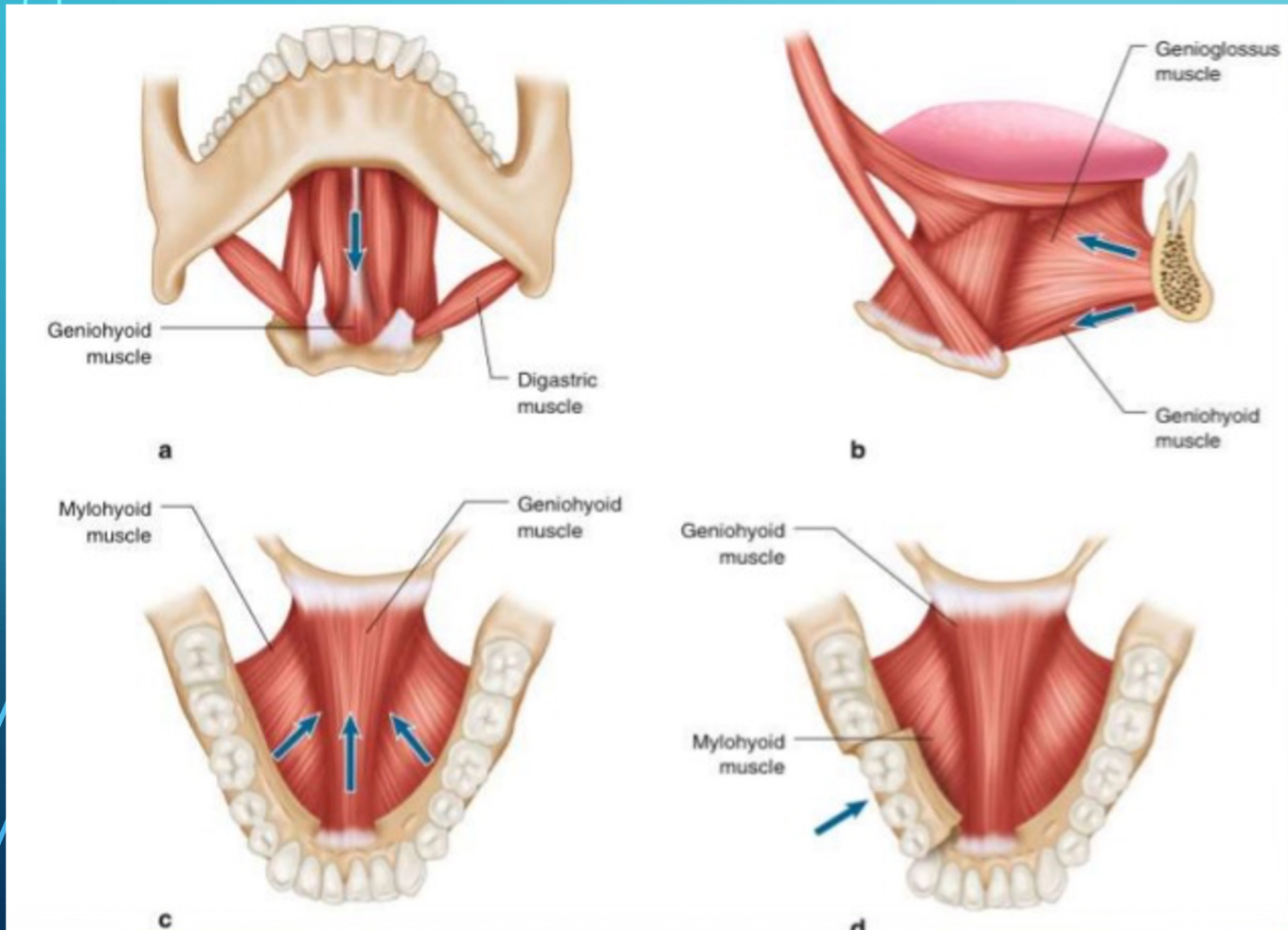
Masseter

Internal Pterygoid

Temporalis



MANDIBULAR DEPRESSORS



Digastric

Mylohyoid

Geniohyoid

Lateral Pterygoid

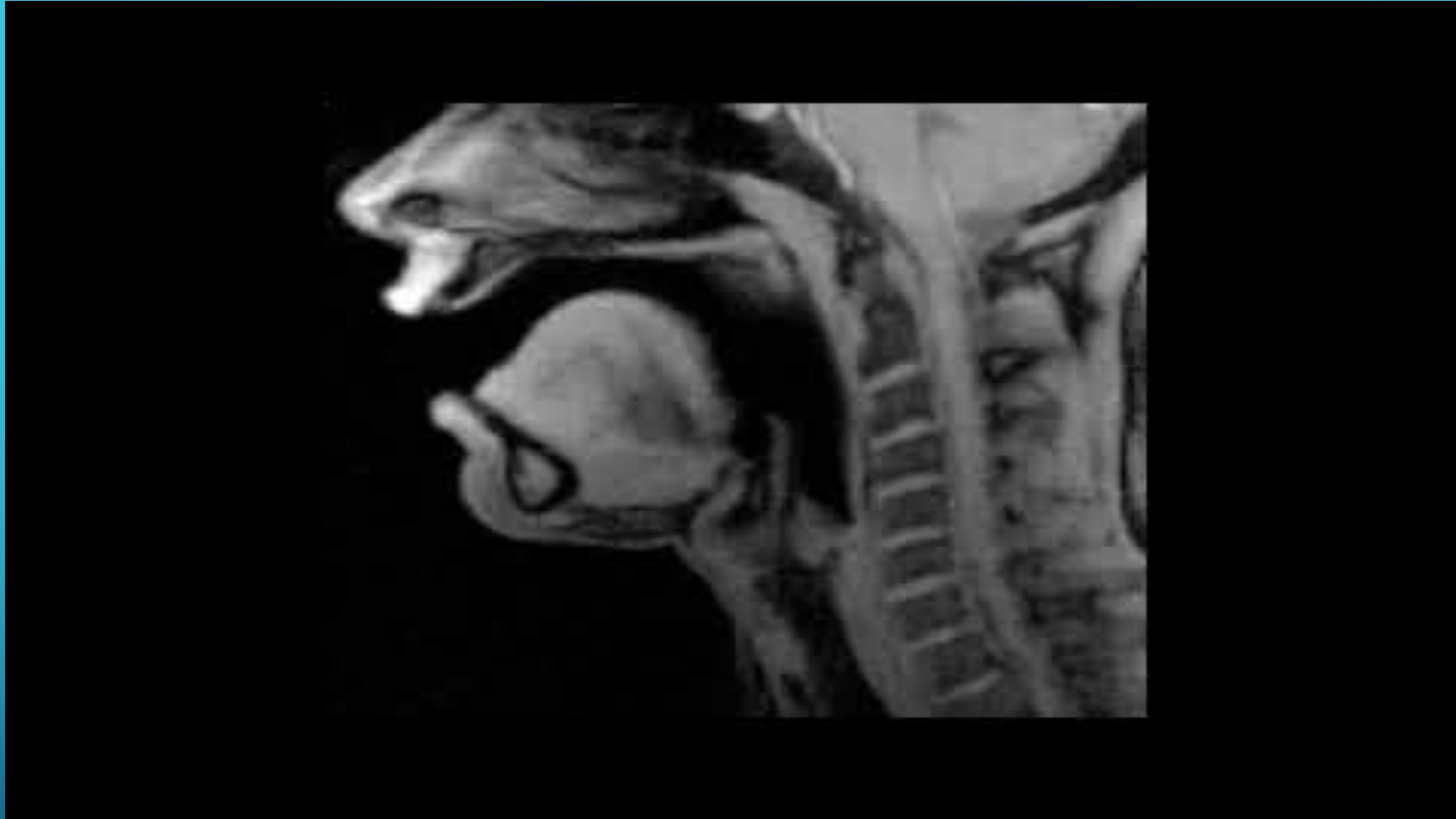


THE TONGUE

THE ROOT OF ALL EVIL.

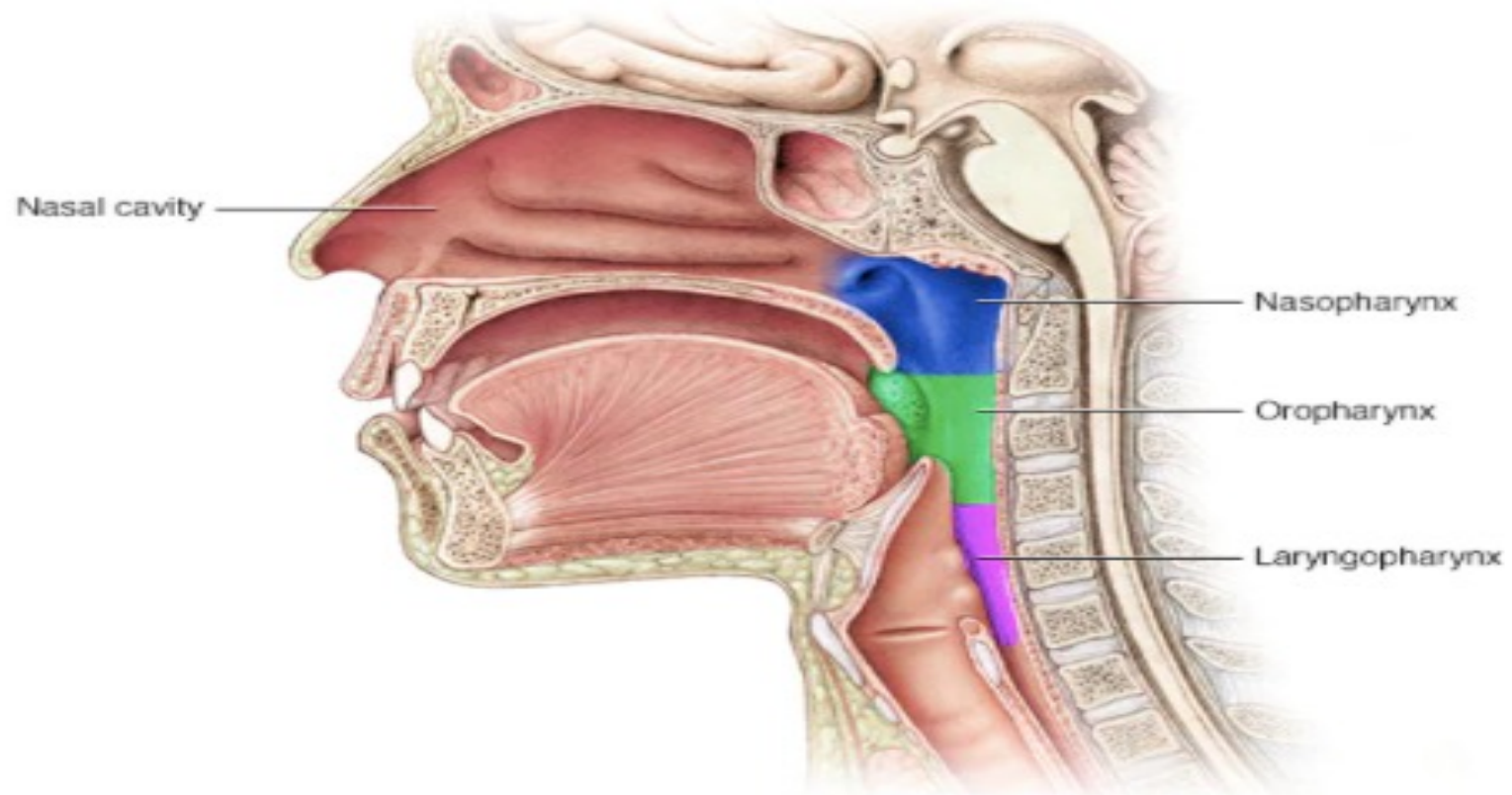
Give thy thoughts no tongue. - Shakespeare

- The most active articulator
- Helps with vowel definition
- Changes/modifies the shape of the oral cavity
- Creates noises when in contact with hard palate, lips, or teeth
- It has both rapid and subtle movements



MRI – Vowel Series

THE PHARYNX



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ALVEOLAR RIDGE AND HARD PALATE

Helps to create consonants like

Plosives [d] and [t]

Nasal continuant [n]

Sibilants [s] and [z]

SOFT PALATE AND NASAL PORT

Soft palate rises for swallowing

When it's raised, it closes off the nasal port

When it's lowered, it allows nasal resonance



INTERCONNECTIONS

IE. WHY DID WE JUST LEARN ALL OF
THIS?

Articulatory muscles are highly interconnected!

“There are no magic vocalises, it is primarily how we do what we do.”
- Martha Randall





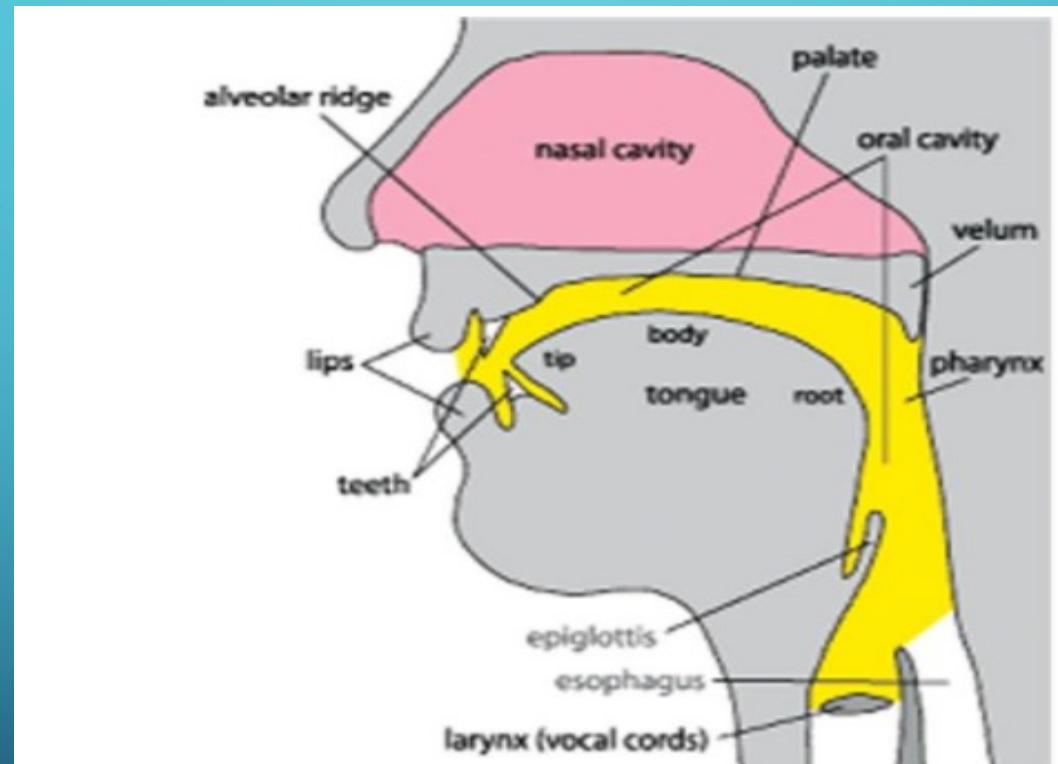
RESONANCE

SOME PHYSICS COMING YOUR WAY!

RESONANCE

- Resonance is the amplification and enrichment of the tone by supplementary vibration. In our case, it's the vocal tract.
- Changes in the shape of the vocal tract alter the resonances.
- The vocal tract includes all of the spaces above the glottis - the pharynx and mouth.

VOCAL TRACT



RESONANCE CREATES OUR INDIVIDUAL TIMBRES

- The buzz of the vocal folds has harmonics.
- The buzz creates sound waves that travels into a resonating chamber or filter (our vocal tract).
- The frequency of sound waves are measured in Hertz (Hz).

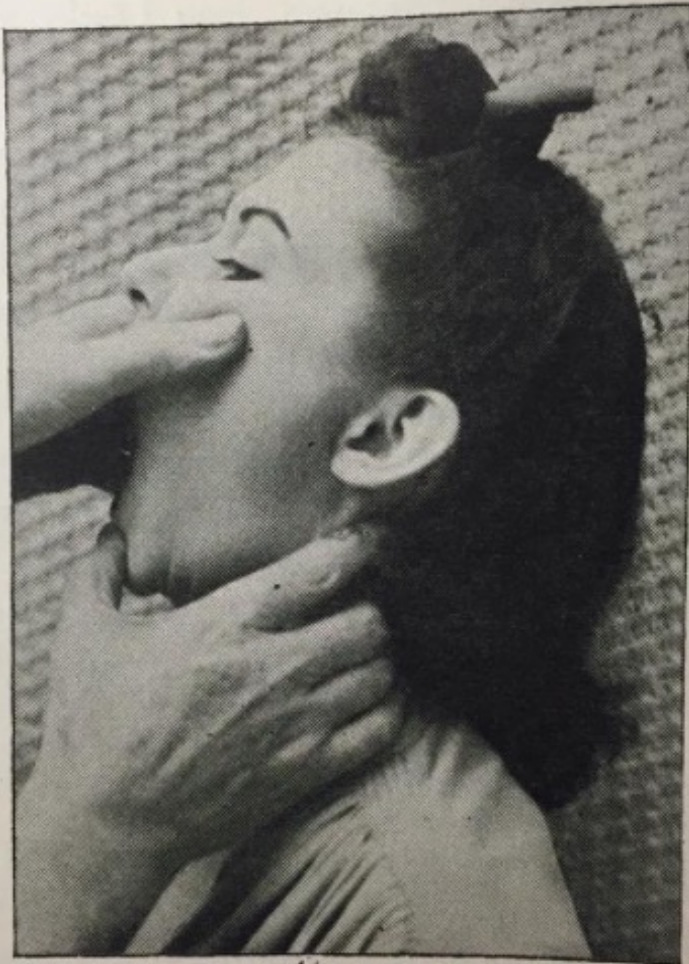


Fig. 28—The Properly Opened Jaw

This illustration indicates the proper position of the jaw and lips when complete opening has been attained. The singer should always either sing with his mouth almost closed or with it wide open in this position.

- from *Your Voice: Applied Science of Vocal Art* (1950) by Douglas Stanley

[#voiceped](#) has come a long way, baby



A

Fig. 32—Jaw Manipulation

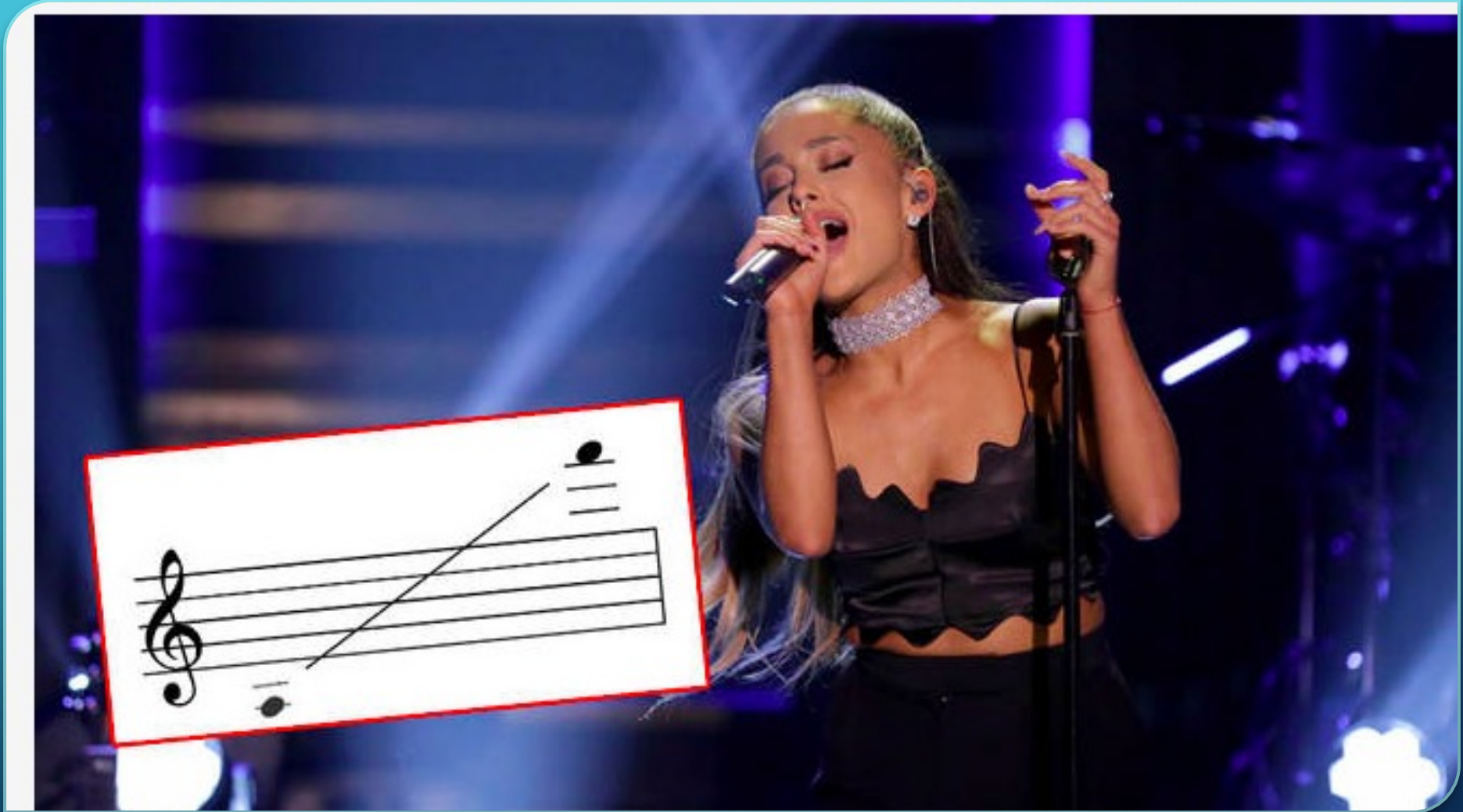
Shannon Coates

Also? If the student is unable to achieve this jaw position on their own? The teacher should feel free to "force a complete opening of the jaw" manually.

A decorative graphic on the left side of the slide, consisting of a network of white lines and circles on a blue gradient background, resembling a circuit board or a neural network structure.

VOCAL REGISTRATION

A STICKY WICKET



Lowest tones

- Fry register
- Pulse register
- Click mode

Middle tones

- Mixed register
- Head voice
- Transition area

Highest tones

- Falsetto
- Bell register
- Whistle register

Lower tones

- Chest voice
- Modal register
- Heavy mechanism
- Belt voice
- Speech range

High tones

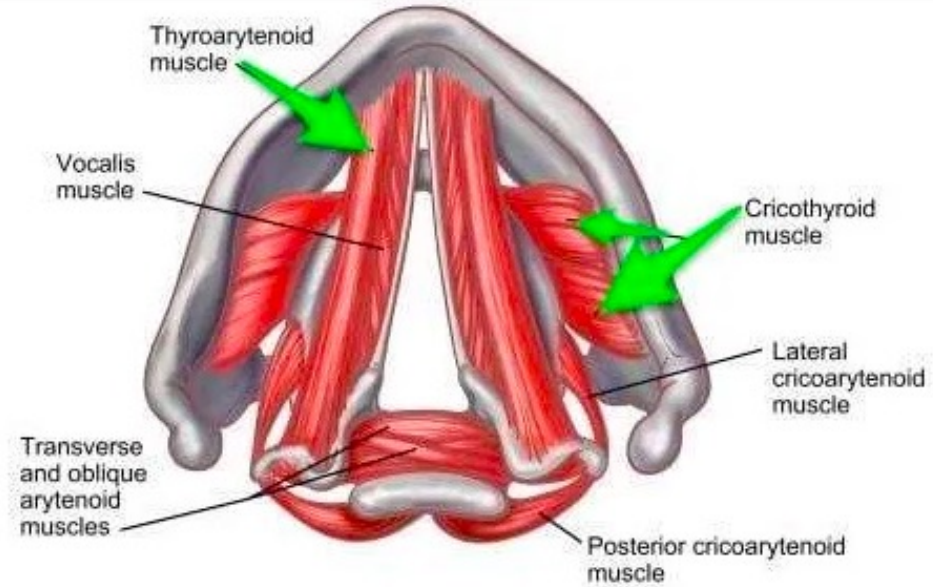
- Falsetto
- Head voice
- Light mechanism
- Loft mechanism
- Feigned voice

HOW MANY DO YOU KNOW?

HOW MANY REGISTERS ARE THERE?

**It
Depends!**

**One, Two
or Three?**



THYROARYTENOID AND CRICOTHYROID



CHEST/HEAVY MECHANISM: THYROARYTENOID
DOMINANT PRODUCTION

Head/Light mechanism:

Cricothyroid Dominant Production



BASIC TENET OF RESONANCE

- The jaw and the tongue are the main influences on our vocal tract.

FEMALE VOICE TRANSITION AREAS

First Transition:

Between C4-F4

In classical style, often modify to more closed vowels like [i], [e], and [u]

Often teachers employ a top down strategy

Second Transition:

Between E5-A5

Change in Resonance, not Laryngeal Event

Because of harmonics, use more open vowels like [a] and [ɔ]

MALE VOICE TRANSITION AREAS

Most male voices are in a heavy mechanism for most of the singing voice

If issues from F3-C4, likely results from laryngeal instability

C4-A4 is a realignment in resonance

Situated at female first transition

Like female voices, used more closed vowels in this area

SEMI OCCLUDED VOCAL TRACT (SOVT)

- [m], [z], [v], [ŋ], [n]
- Lip trill
- Raspberry
- Straw phonation

AGE CONSIDERATIONS!
THANK YOU TO MARGARET WOODS OF VIRGINIA
COMMONWEALTH UNIVERSITY!



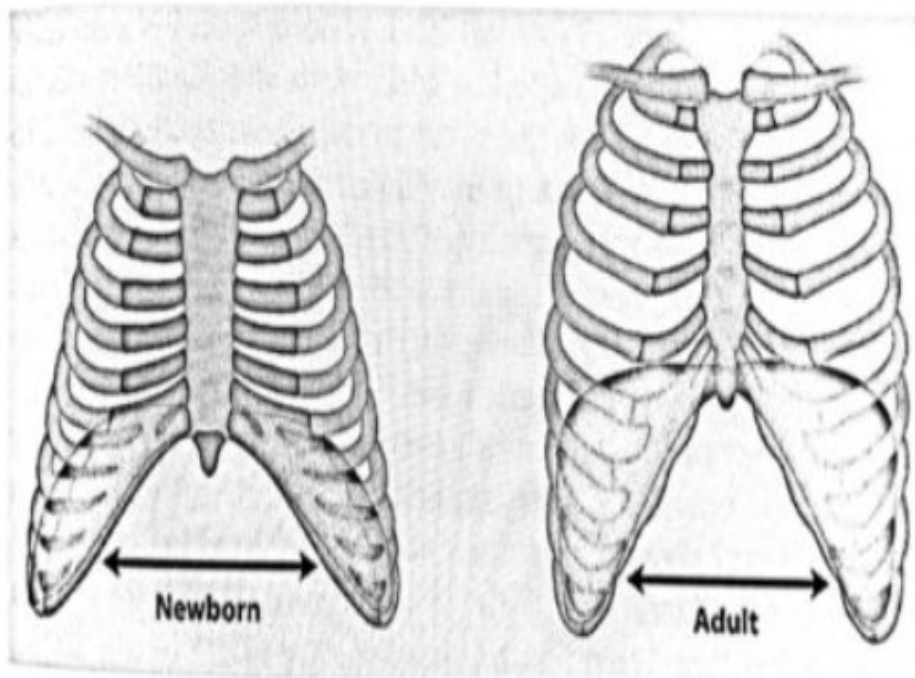


BABIES AND YOUNG CHILDREN

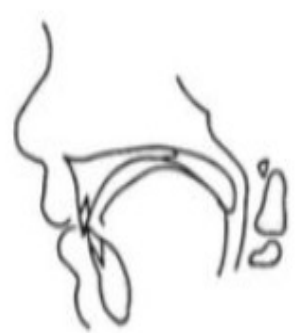
- Babies can hear sounds in utero
- Although we are born with vocal folds, the folds of babies and young children DO NOT have layers!

ALIGNMENT AND BREATH

- Ribcage is cartilaginous through second year of life and develops adult contour (not size) by age seven
- Lung size increases significantly through puberty; however, adult dimensions, capacity and lung volume don't occur until between 18 and 24 yrs of age
- Breathing changes from childhood, to prepubescent to young adult



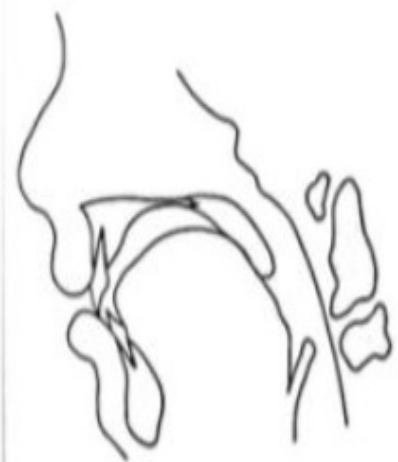
(a) Age 6 months



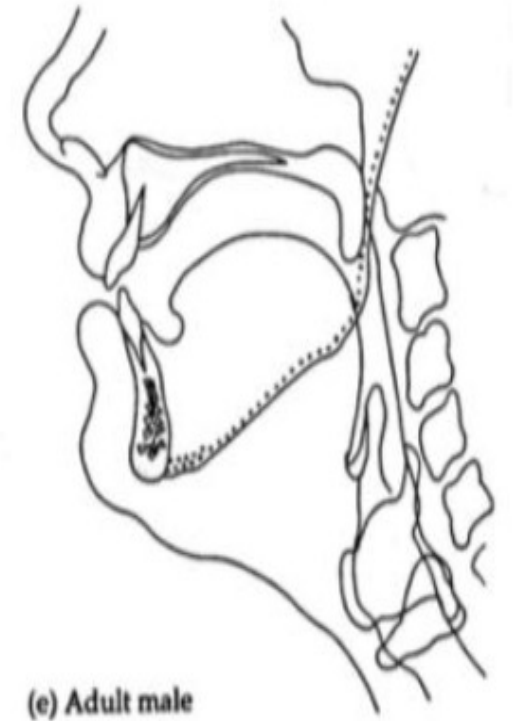
(b) Age 2 years



(c) Age 7 years



(d) Age 13.5 years



(e) Adult male

MOUTH AND ARTICULATORS

- Young voices have a small oral cavity
- Children do not have a fully developed pharynx
- The tongue is extremely large compared to mouth space
- The vocal tract grows, develops and changes throughout life
- Hard palate is not finished developing until age 15
- Soft palate continues to grow until about age 19
- Jaw reaches maturity after puberty

8 The Evolving Singing Voice: Changes Across the Lifespan

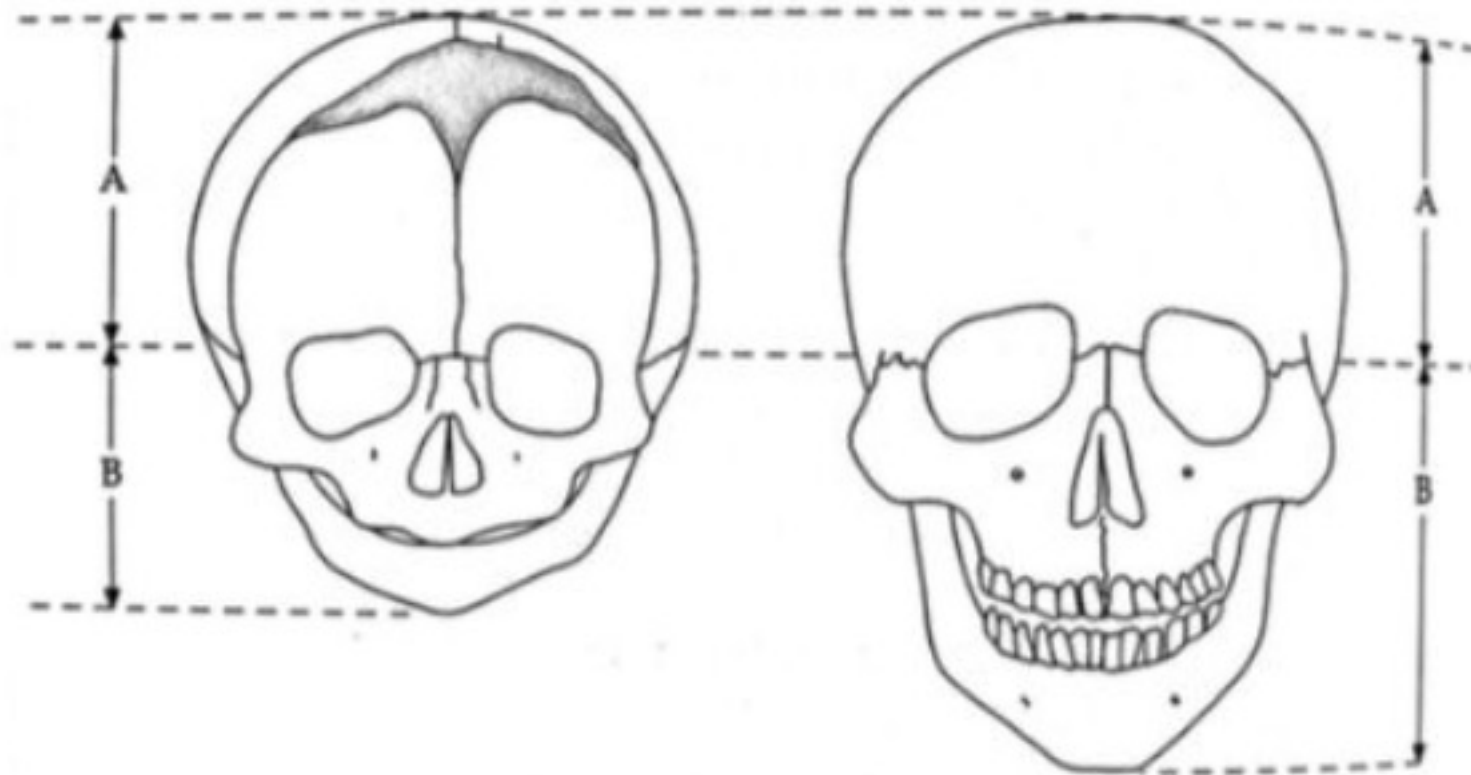


FIGURE 2-5. Craniofacial proportions of infant and adult.

THE LARYNX

- Larynx is very high in young voices and 1/3 size of an adult larynx
- Chest voice and low notes difficult for pre-pubescent singers
- Children do not have fully developed five-layer vocal folds. By age 13, a child will develop vocal fold layers and larynx that start to resemble adult - but will continue to grow and change
- Anatomical vocal maturation occurs around age 19-20 for females and 21-22 for males

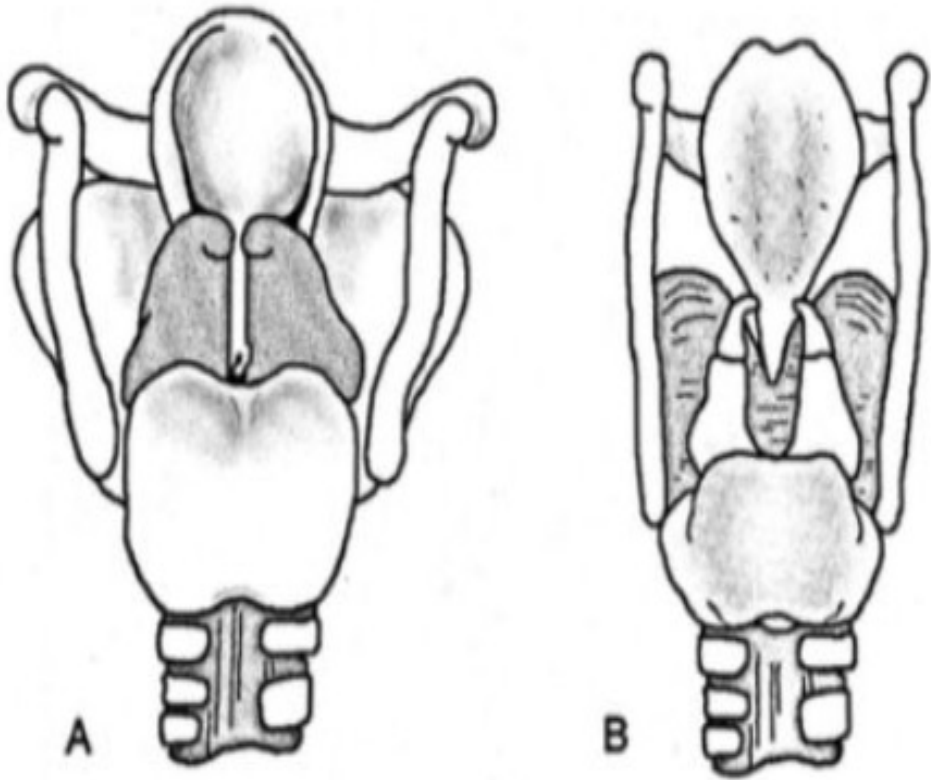


FIGURE 2-3. Posterior adult and child larynx.

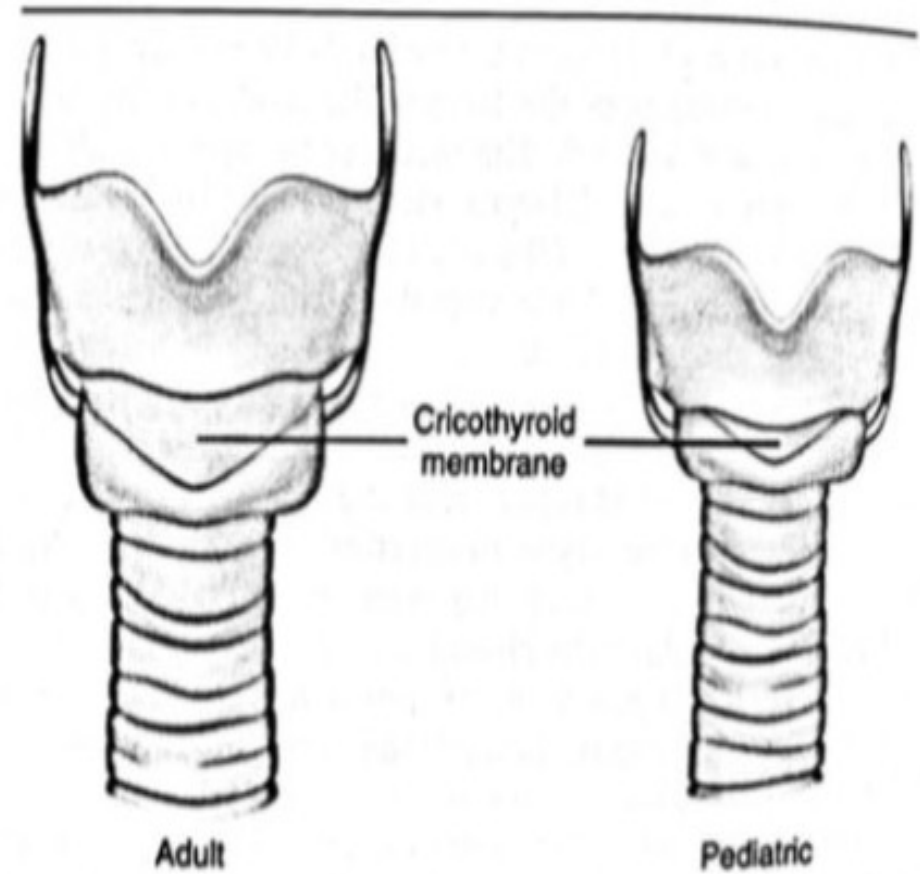


FIGURE 2-2. Adult and pediatric larynx with cricothyroid membrane.

THE CHILD VOICE

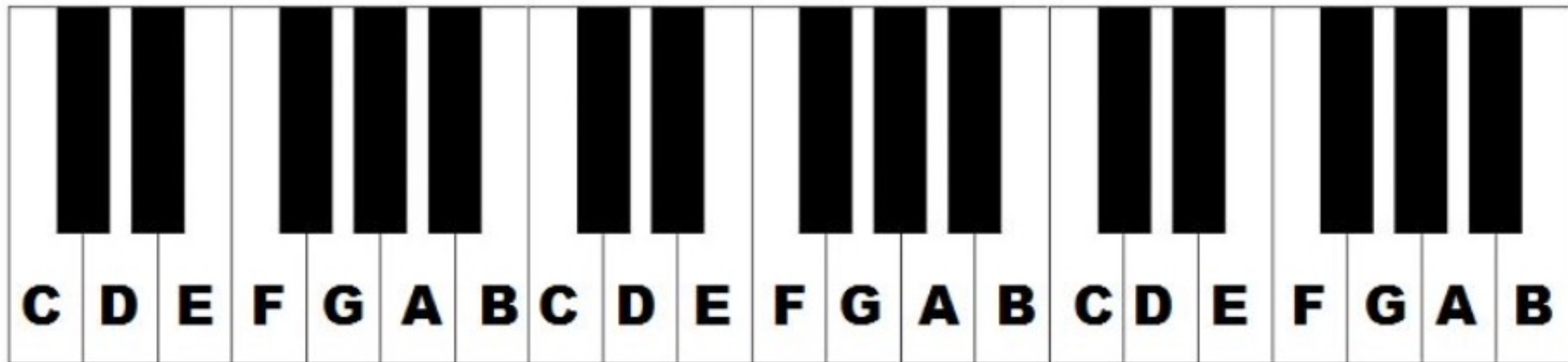
- Always a soprano
- Develop the head voice
- Breathy is OK!

Never label this age a 'non-singer'

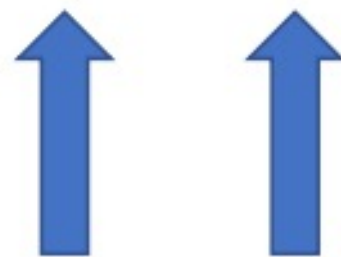
- Short attention span - use a variety of approaches
- Focus on musicianship skills like solfege and rhythms
- Teach basics - alignment, breath, healthy tone
- Folk songs, canons, small tessitura,
- appropriate text

Foster the love of singing!

ELEMENTARY K-5



C4 (middle C) should be the lowest the repertoire goes, anything below will be difficult for young singers



E5 (two E's above middle C) is the highest elementary repertoire should sit, but an occasional F5 or G5 is okay as long as the repertoire doesn't sit in this tessitura

THE PUBESCENT VOICE

- Breathy is OK!
- Physical growth – height, weight, size
- Skeletal and Musculature development
- For female voices, consider not assigning categories like soprano and alto
- You may need to adjust keys or rewrite some lines



FEMALE CHANGING VOICE

Can be breathy and hoarse

Explore head voice

Need lots of encouragement

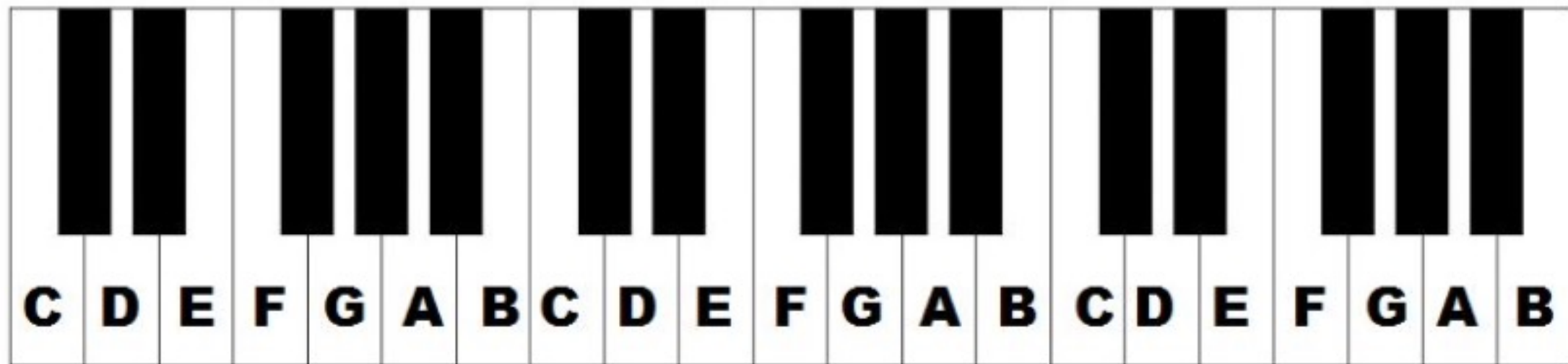
Stays in treble range

Bottom of voice extends

Upper range rises slightly

Limited range is possible

MIDDLE SCHOOL 6-8: FEMALE VOICE



Generally, C4 (middle C) should be the lowest the repertoire goes, however, female voices at this age can sing below middle C to about A3 (A below middle C)



Encourage good head voice – ‘yoo hoo’ or ‘wool!’ Repertoire shouldn’t go over G5. Use lots of slides and glides and encourage young female singers to explore their ranges.



MALE CHANGING VOICE

Can be breathy and husky

Stepwise singing

Limited, narrow range

Avoid staccato

Vocal breaks and instability

Let them sing where they are comfortable

Need lots of encouragement

COOKSEY STAGES OF MALE VOICE CHANGE

Figure 1
Mean Ranges and Tessituras for the Voice Change Stages



a. Unchanged

Midvoice I

Midvoice II

b. Stage 1

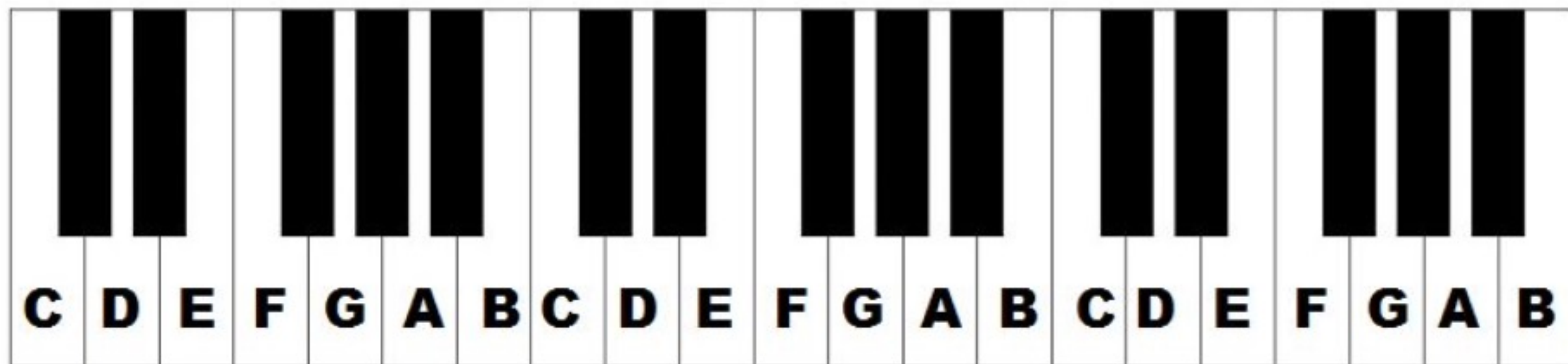
c. Stage 2

d. Stage 3
Midvoice IIA

e. Stage 4
"New Voice"
(New Baritone)

f. Stage 5
"Emerging Adult Voice"
(Settling/Developing
Baritone)

MIDDLE SCHOOL 6-8: MALE VOICE



Changing male voice:
Generally, G3 (G below middle C) to C4 (middle C) is what works best. Some changing male voices will have it easy, and will be able to sing C3 to C4 and others will really struggle. It depends on the voice!



This area will be a nightmare for the male changing voice – C4 to A4 – It could be really husky or sound like falsetto, very thing and hooty



Remember to encourage head voice or if in the change, early falsetto! If young male voices don't do this, they will have a very hard time thinning the folds and singing softly. Some voices will have a lot of trouble accessing these pitches during the voice mutation.



HIGH SCHOOL/ NEW VOICE

Proceed with caution

Thorax fully developed

Breathing techniques can be taught

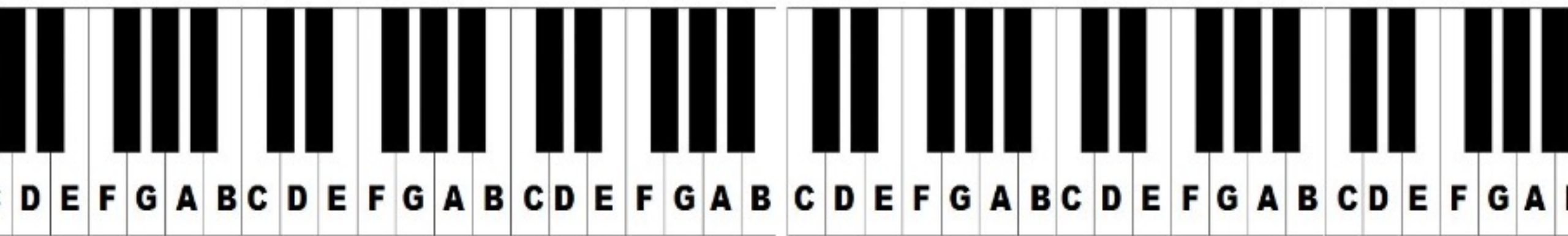
5 layer vocal folds present

Range increases

Serious study can begin

Watch for alignment and nasality

High School/New Voice: FEMALE



MAYBE

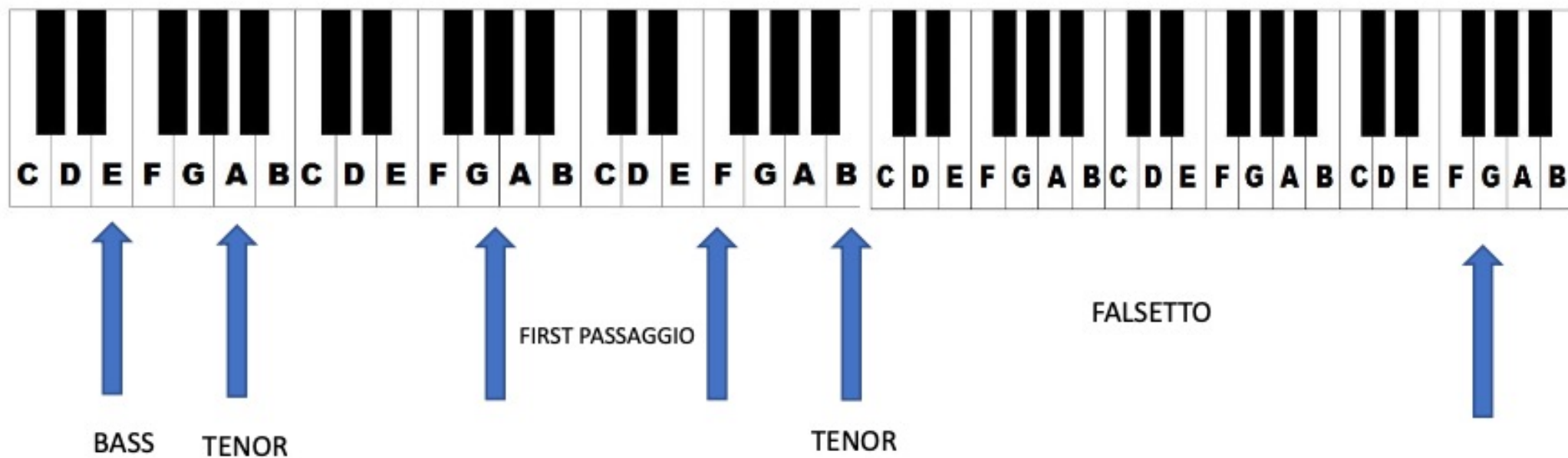
First Passaggio:

Second passaggio: D5-F5 (modify the vowel!)

CHEST: G3 to D4, E4, F4

Middle Voice: E4-D5

High School/New Voice: MALE



KNOW BETTER, DO BETTER NATS CHAT



**KNOW BETTER,
DO BETTER:**
What Vocal Instructors and
Choir Directors Need to Know
and Do to Be on the Same Page

Oct. 10, 2021



Lynn Smith



Nancy Applegate



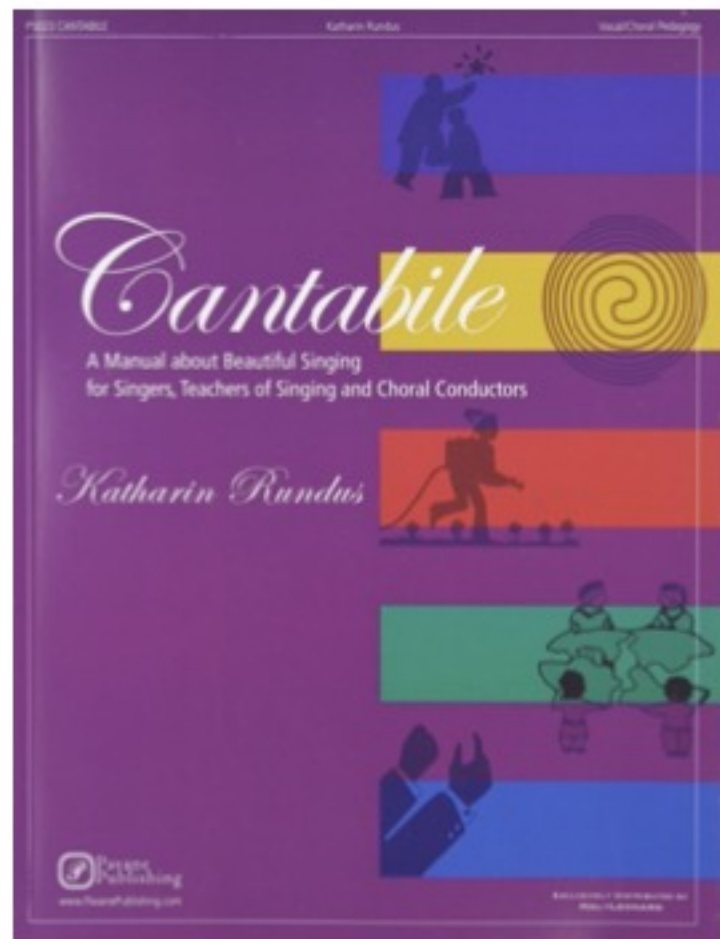
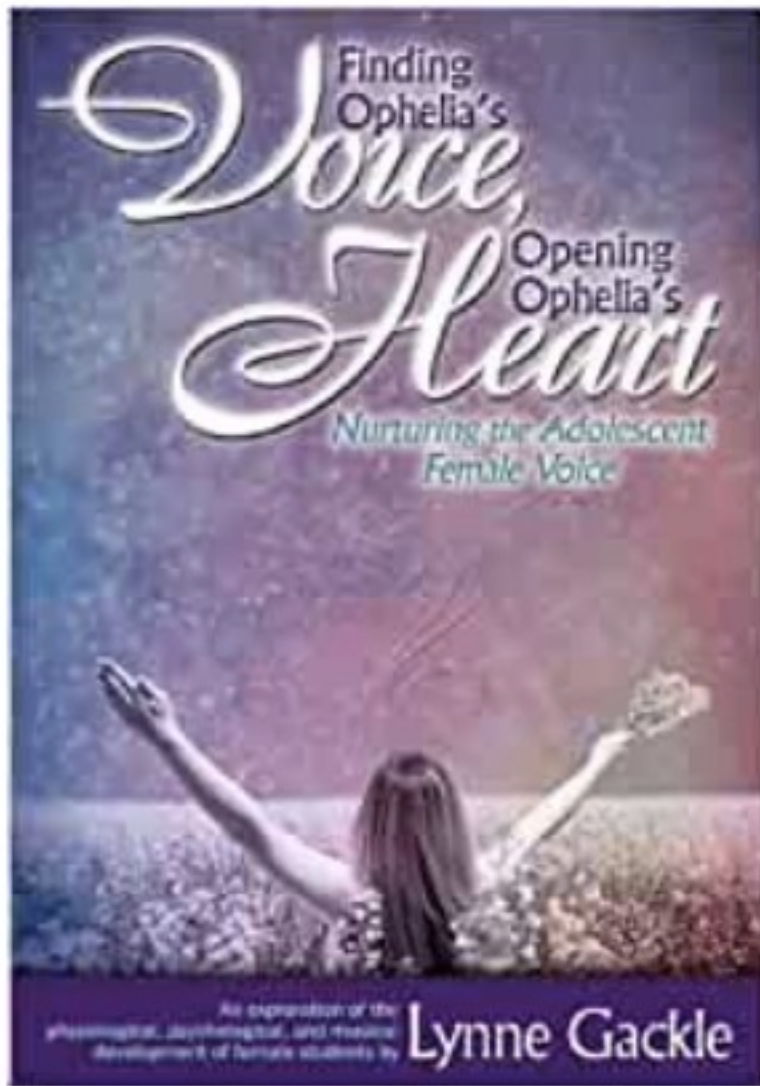
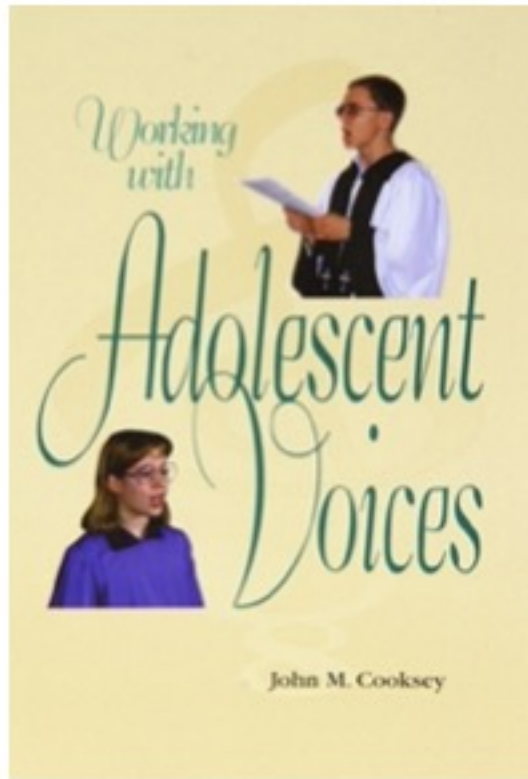
Geoffrey Evans



John Lee



Alan Henderson



The Evolving Singing Voice

Changes Across the Lifespan

KAREN BRUNSEN



TEACHING *the* CHILD SINGER

Pediatric Pedagogy for Ages 5-13



by Dana Lentini



HAPPY SINGING! TEACHER BOX



NEW! Music for Young Singers



FINAL CONSIDERATIONS

- DO NO HARM
- You can teach artistry at any level
- Meet your students where they are
- Children are NOT miniature adults
- Foster the love of singing