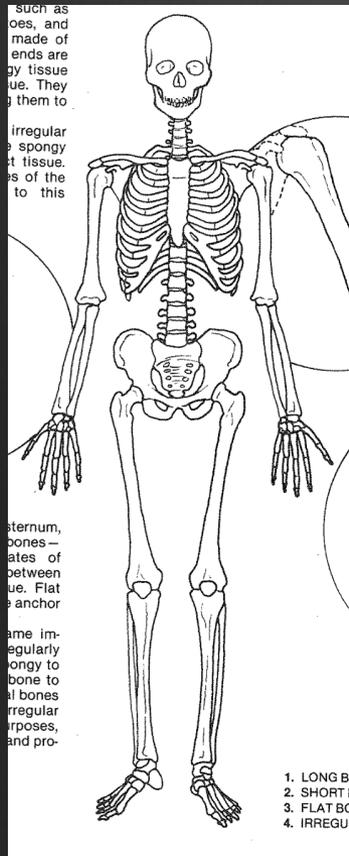


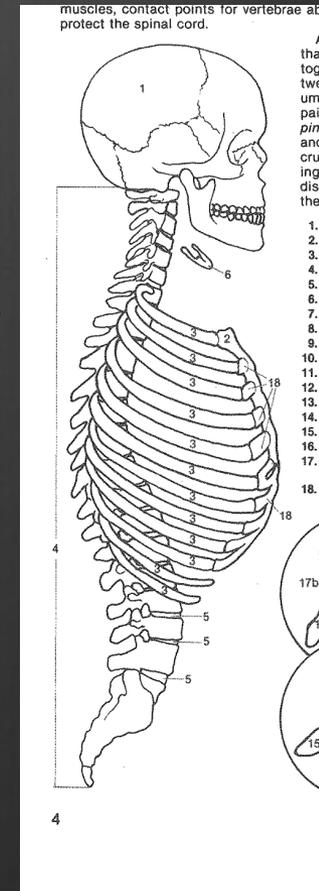
Molto Sostenuto

Vocal and physical health for conductors and our
singers

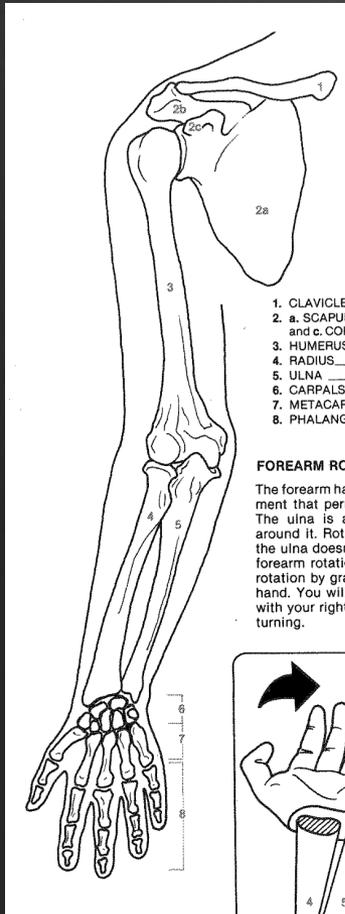
How accurate is your body map?



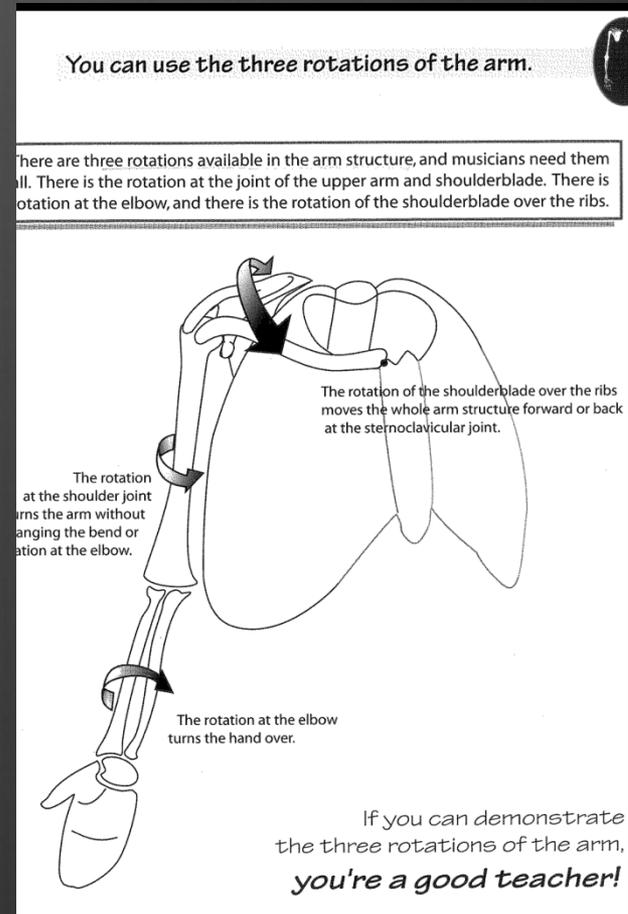
- Body Mapping concepts taught by Barbara Conable
- Build alignment from the ground up
 - Benefits of yoga and Tai Chi
- “Up and Over” concepts of Alexander Technique
- Our students/singers are mirrors of our body alignment and position
- The body is our instrument and must be aligned for proper breath and phonation



Body map of the shoulder & arm joints and its rotations



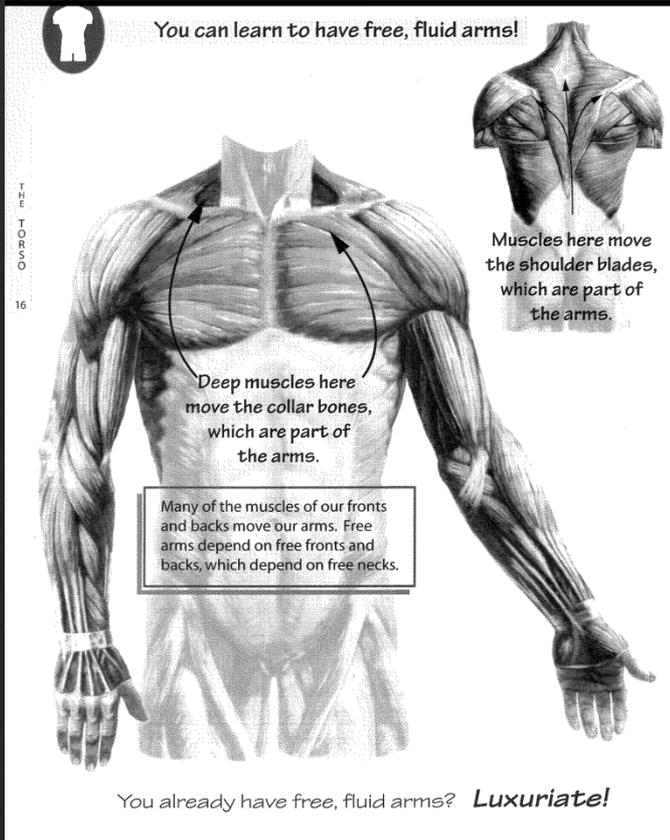
- There are four major joints in the arm, not three!
- Conducting is a repetitive motion that can be harmful in the long term
- It is important to stretch, warm-up, listen to how your personal body functions, and strive to maintain muscular balance



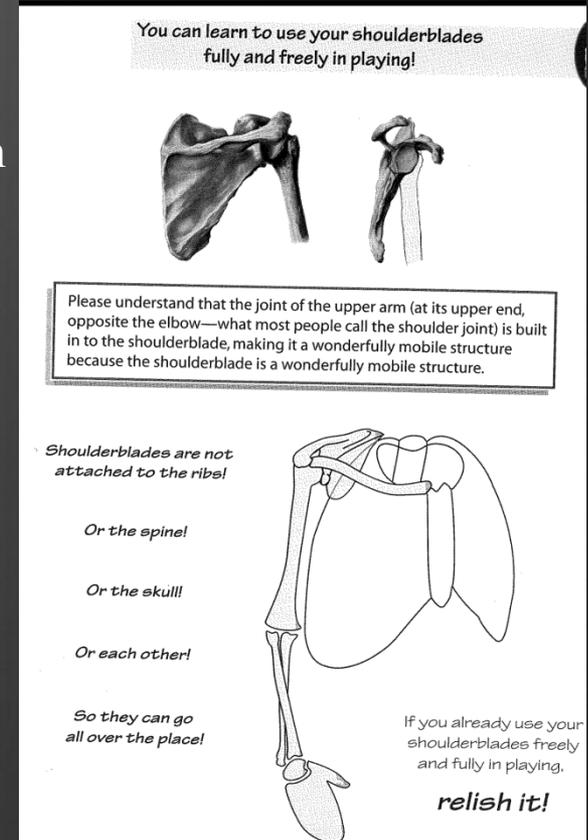
Left image from The Human Anatomy Coloring Book.

Right image from What Every Musician Needs to Know About the Body by Barbara Conable

Do not neglect the shoulder blades!

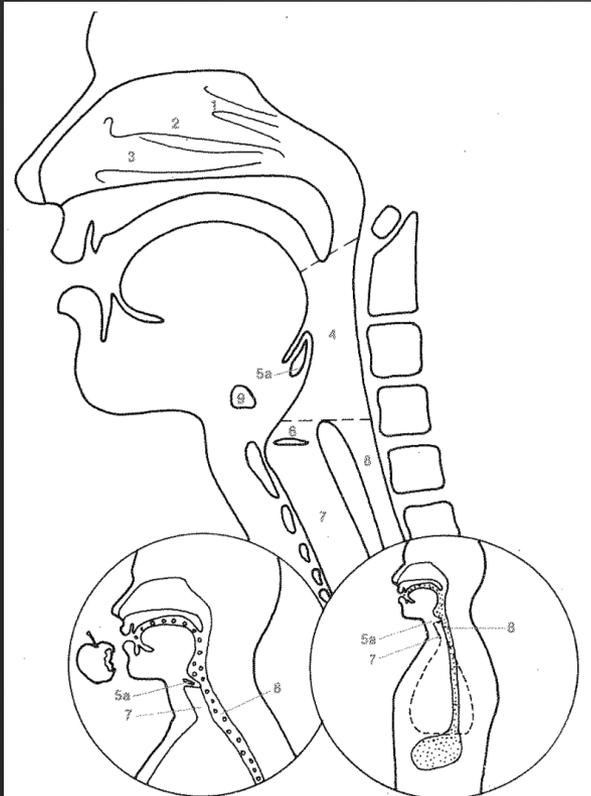


- Shoulder blades “float;” are not connected to sternum or ribs
- Conductors must maintain freedom in the muscles in chest, back, shoulders, and neck
- Yoga poses to open chest and shoulders



How accurate is your internal map?

Trachea vs. esophagus



- ❉ Trachea is the “front pipe” through which air passes into the lungs
- ❉ Esophagus is the “back pipe” through which food and liquids pass into the stomach
- ❉ Epiglottis closes off the airway when swallowing, or else particles stimulate cilia and mucous membranes of trachea causing cough
- ❉ Water, tea, food, etc. does not pass the vocal folds

Image from Human Anatomy Coloring Book by Margaret Matt

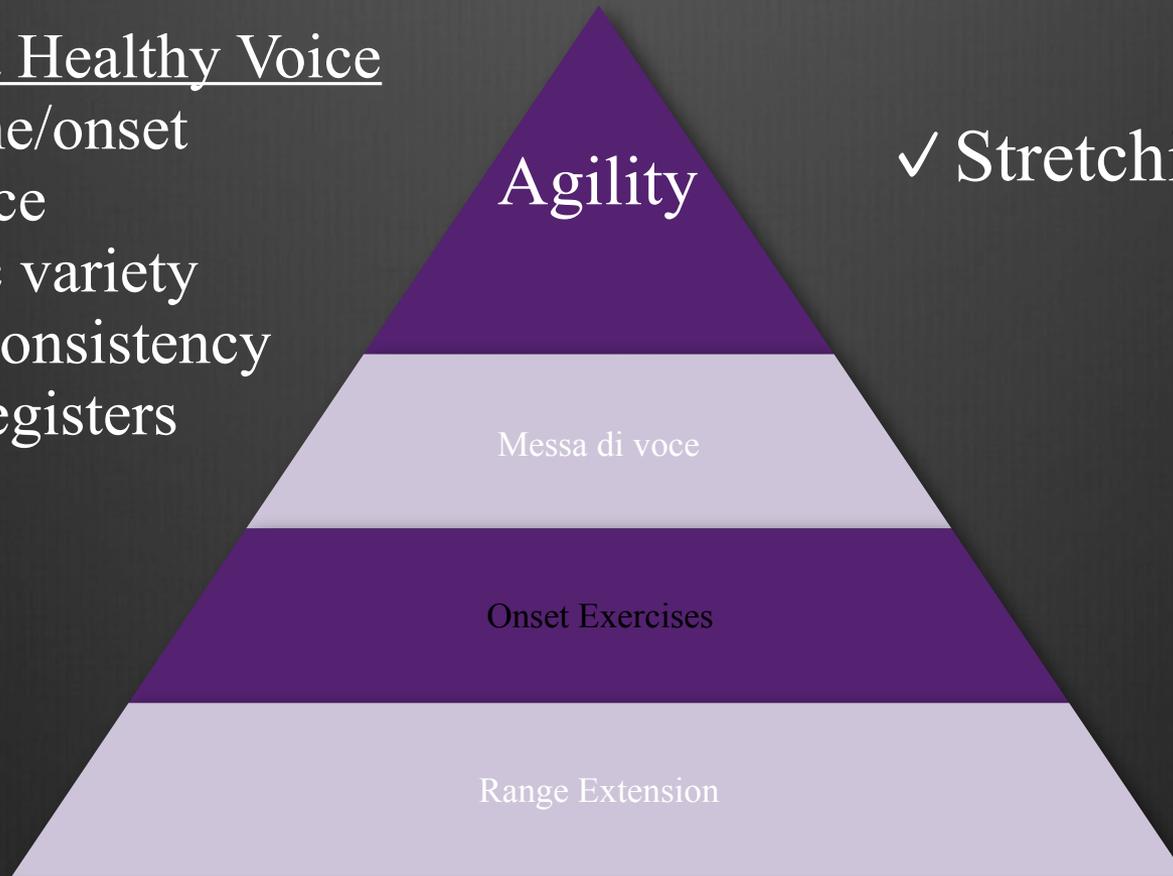
Longevity of the Voice



Daily Warm-Up & Cool Down

Signs of a Healthy Voice

- Clear tone/onset
- Resonance
- Dynamic variety
- Timbre consistency through registers
- Vibrato
- Range
- Freedom



✓ Stretching!

Awareness of Speaking Voice

Areas for Attention

- Habitual vs. optimal pitch level
 - Clues from resonance and endurance
- Volume
- Amount of use
 - Instruction vs. gesture
- Supported speech
- Alignment

Underestimated Abuse

- Habits outside of the classroom; hyperfunction vs. hypofunction
- Clearing the throat/coughing
- Speaking/singing when sick
- Whispering
- *Modeling
- Glottal onsets
- Vocal fry
- Mirror neurons

Warning signs of vocal damage...

Hydration and Diet

Optimal Foods and Liquids	Foods and Liquids to Avoid
<i>Proteins and carbohydrates for energy</i>	<i>High salt content which causes dehydration</i>
<i>Water or liquids with electrolytes to avoid dehydration (Smartwater); humidifier</i>	<i>Caffeinated beverages and alcohol which cause dehydration</i>
<i>Slippery Elm, Fisherman's Friend, Throat Coat Tea or other non-menthol oral demulcents</i>	<i>Cough suppressants with numbing menthol – e.g. Halls</i>
<i>Natural medicines; e.g. Roxalia Homeopathic Sore Throat Remedy, Neti pot</i>	<i>Milk products which increase mucosal production</i>
<i>A healthy, balanced diet; apple and ginger</i>	<i>Products that aggravate acid reflux like acidic fruits, caffeine, alcohol, fried/heavy foods; cigarettes and medicinal marijuana (including second-hand smoke) which harm the lungs</i>

Antihistamines/Inhalers

- Dryness, hoarseness; shrinking of vocalis muscle

Aspirin (Ibuprofen/Naproxen)

- Potential for vocal fold hemorrhages (dilates the capillaries that supply blood to vocal folds)

Doctor Prescribed Medications

- Steroids, birth control, antidepressants, hormones, etc. can have serious effects on the voice which should be discussed with a doctor; see *Singing Voice Rehabilitation* by Karen Wicklund for an excellent chart

Effects of Medication

Awareness of the Aging Voice

- 🎬 Changes in rate of vibrato, timbre, intonation, and resonance can change due to respiratory problems, loss of elasticity/thinning and stiffening of vocal folds (incomplete glottal closure), hardening of laryngeal cartilages (ossification), vocal tract lengthening, and growing facial skeleton. (paraphrased from Sing Into Your Sixties... And Beyond! By Sangeetha Rayapati)
- 🎬 Hormonal changes and menopause – thickening and drying of vocal folds which leads to a lower tessitura and less clear tone
- 🎬 Acid Reflux – As esophageal sphincter weakens and acid backs up, symptoms can include heartburn, slow or breathy onset, sore throat, “lump” in the throat; avoid caffeine, attempt natural remedies and diet changes, or see a doctor for medication depending on severity of symptoms

Vocal Choral Myths

- 🎬 “Drop the jaw” = misalignment and vocal tension
- 🎬 “Create [a] with three fingers” = laryngeal depression
- 🎬 “Lift you eyebrows to sing in tune” = laryngeal instability
- 🎬 “Add [h] in melismas” = delayed onset and disconnected from breath
- 🎬 “Place the sound” = false perception that pitch is a place and tone is a thing instead of responding to sympathetic vibration
- 🎬 “Let’s sing it ONE more time” - rest the voice and create more reliable muscle and aural memory with mental singing
- 🎬 “Breathe with me” - only if it’s inaudible and diaphragmatic instead of audible and clavicular

Resources

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- 🎬 McKinney, James. *The Diagnosis & Correction of Vocal Faults*. Long Grove, Illinois: Waveland Press, Inc., 2005.
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- 🎬 Olson, Margaret. *The Solo Singer in e Choral Setting*. Lanham, MD: The Scarecrow Press, Inc., 2010.
- 🎬 Rayapati, Sangeetha. *Sing Into Your Sixties... And Beyond!* Delaware, Ohio: Inside View Press, 2012.
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