Class Voice

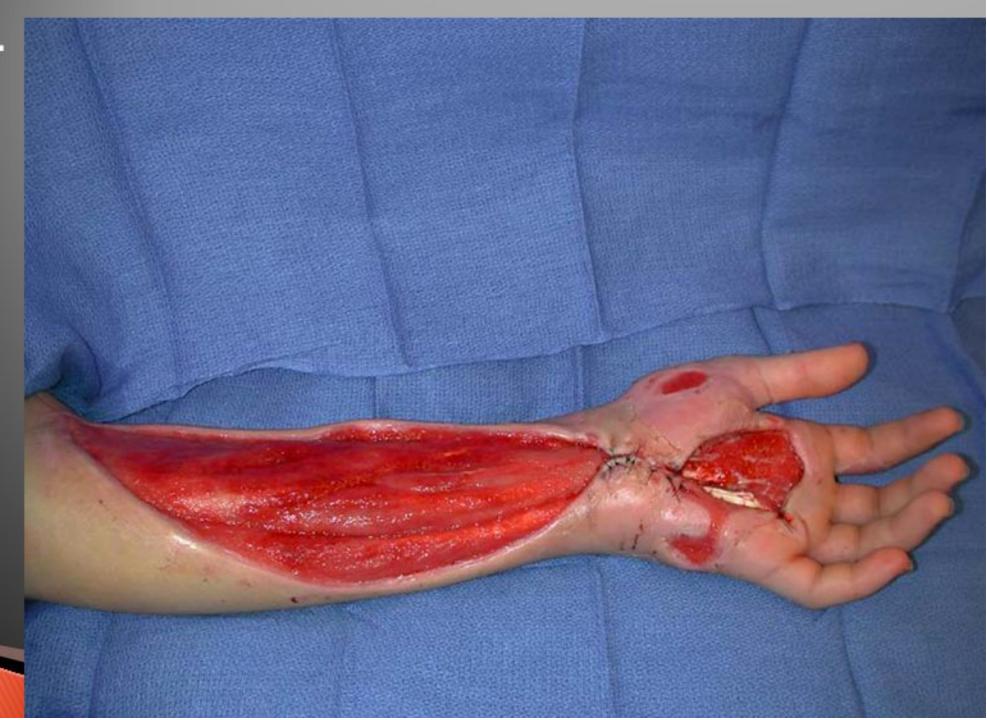
Review of Chapter Seven: **Muscles and Physical Balance**



Muscles - How do they work?

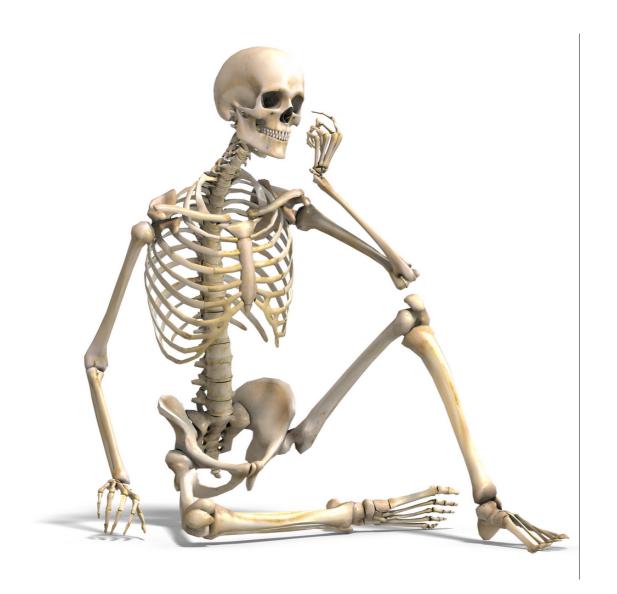
There are over 600 muscles in the human

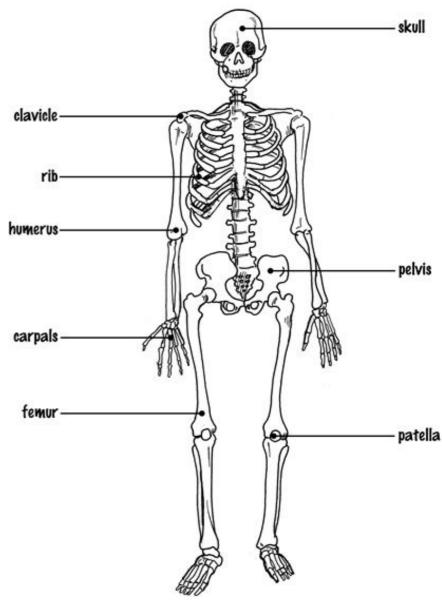
body.



1.

 Always look at the <u>skeletal structure</u> first to give you vital clues to how the body functions

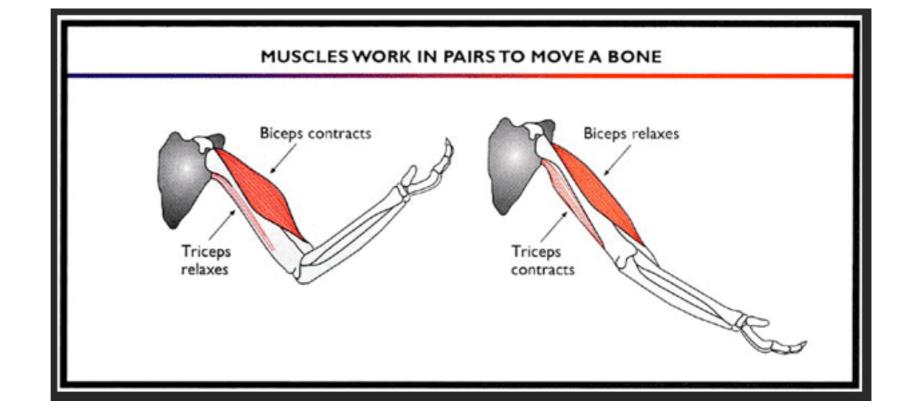




2.

Skeletal <u>muscles</u> create movement of the body —
not ligaments and membranes. When a muscle
<u>contracts</u>, a joint changes position. Any move we
make takes a <u>signal</u> of intent from the brain. . . .
The muscle then <u>shortens</u> or <u>contracts</u>. . . . The
body needs to replace <u>tension</u> with appropriate

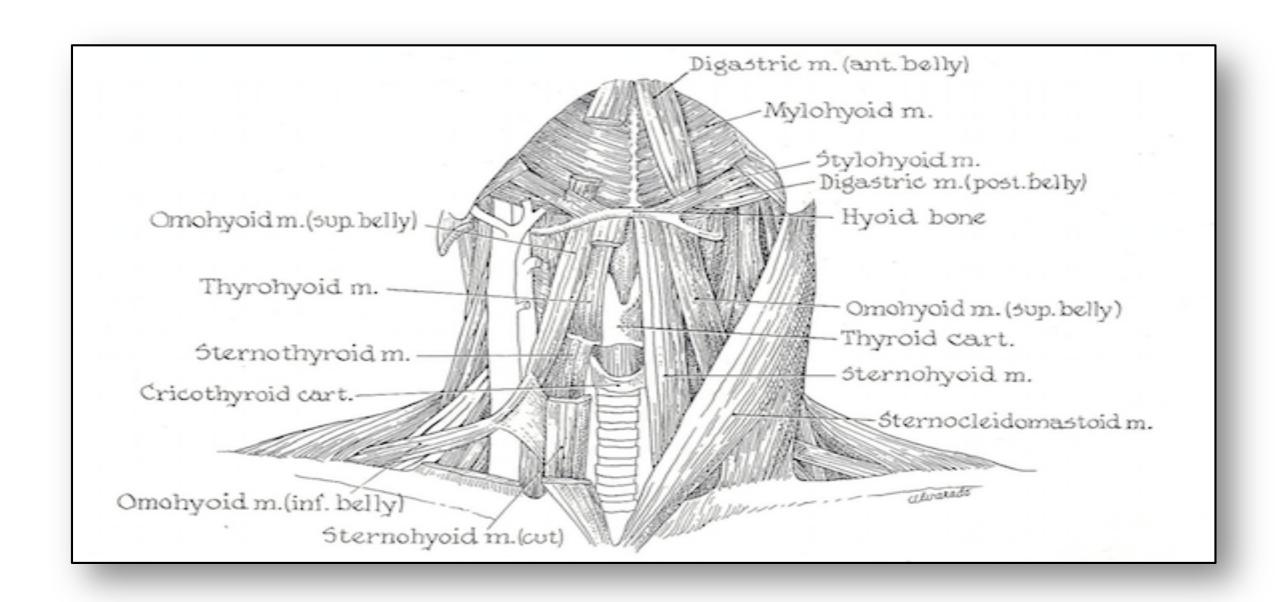
muscle use.



#3.

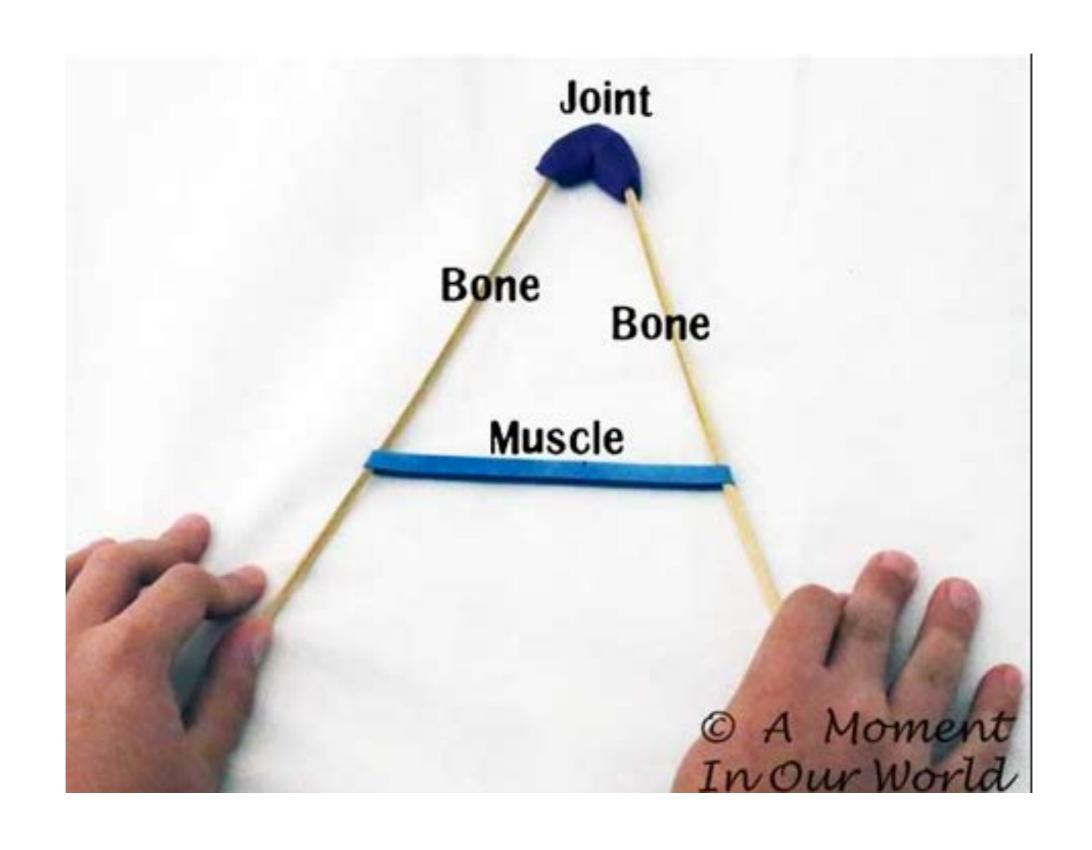
 To determine the action of a muscle, you need to know where it is <u>attached</u> and in which direction the fibers are running. Again, muscles only <u>contract</u> to create action. (They do <u>not</u> push or expand.) In general muscles are named according to where they are <u>located</u> in the body, their <u>shape</u>, or their <u>actions</u>.

MUSCULAR SYSTEM (ANTERIOR VIEW) galea aponeurotica temporalis m. Key frontalis m. orbicularis orbital part corrugator supercilii m. I. ligament oculi muscle palpebral part levator labii superioris alaeque nasi m. II. ligaments procerus m. auricularis muscles: m. muscle nasalis m. superior mm. muscles zygomaticus major m. anterior t. tendon masseter m. levator labii superioris m. tt. tendons buccinator m. zygomaticus minor m. depressor anguli oris m. levator anguli oris m. depressor labii inferioris m. risorius m. thyrohyoid m. depressor septi m. omohyoid muscle orbicularis oris m. sternohyoid m. (superior belly) levator scapulae m. mentalis m. trapezius m. platysma m. scalenus medius m. sternocleidomastoid m. subscapular m. deltoid m. biceps brachii _ long head coracobrachialis m. muscle short head latissimus dorsi m. teres major m. long head triceps brachii latissimus dorsi m. medial head muscle deltoid m. lateral head long head biceps brachii m. triceps brachii lateral head brachialis m. muscle medial head bicipital aponeurosis biceps brachii m. biceps brachii t. brachialis m. _ supinator m. brachioradialis m. - brachioradialis m. bicipital aponeurosis extensor carpi radialis longus m. flexor carpi radialis - pronator teres m. supinator m. flexor carpi radialis m. extensor carpi radialis longus m. palmaris longus m. flexor digitorum profundus m. flexor carpi ulnaris m. flexor carpi ulnaris m. abductor pollicis longus m. pronator teres m. flexor digitorum superficialis m. flexor pollicis longus m. pronator quadratus m. flexor pollicis longus m. flexor carpi radialis t. - flexor retinaculum gluteus medius m. - palmar aponeurosis tensor fasciae latae m. sartorius m. flexor digitorum superficialis m. aluteus minimus m. gluteus medius m. rectus femoris m. tensor fasciae latae m. iliopsoas m. sartorius m. pectineus m. pectineus m. vastus intermedius m. gracilis m. - adductor muscles longus vastus medialis m. magnus rectus femoris m. iliotibial tract vastus lateralis m. biceps femoris m. iliotibial tract lateral patellar retinaculum medial patellar retinaculum rectus femoris m. patellar I. peroneus longus m. gastrocnemius m. tibialis anterior m. tibialis anterior m. soleus m. extensor digitorum longus m. interosseous membrane peroneus longus m. extensor digitorum longus m. soleus m. extensor hallucis longus m. peroneus brevis m. peroneus longus t. Key peroneus brevis m. extensor hallucis longus m. 1 subclavius m. tibialis anterior t. 2 external intercostal mm. superior extensor retinaculum peroneus tertius m. 3 pectoralis minor m. extensor digitorum longus tt. 4 serratus anterior m. inferior extensor 5 pectoralis major m. retinaculum peroneus tertius t. 6 rectus sheath (anterior layer) extensor digitorum 7 rectus abdominis m. brevis m. 8 external abdominal oblique m. 9 internal abdominal oblique m. 10 transversus abdominis m. 11 rectus sheath (posterior layer) 12 arcuate line 13 cremaster m. 14 linea alba 15 aponeurosis of external abdominal oblique m.



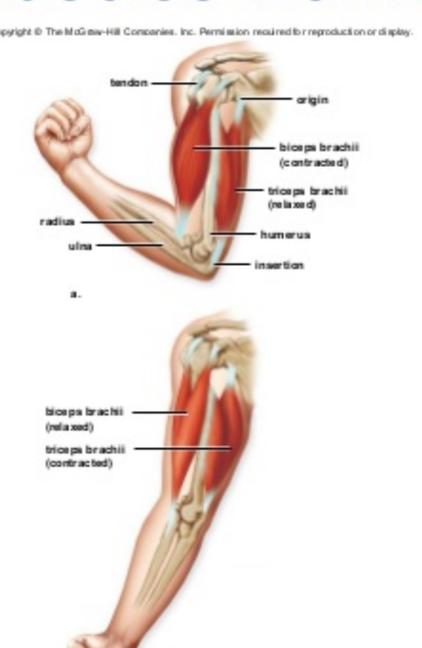
Extrinsic muscles of the Larynx.

 In order for muscles to <u>contract</u> and move a joint in one direction, muscles on the opposite side of the joint must **relax**. When muscles don't let go (relax) when they're supposed to, there is restriction of movement. A tug-of-war between opposing muscles creates pushing muscular antagonism. When this kind of antagonism is used to stabilize a joint to help its performance, it is known as **synergy**. It is unwanted **antagonism** that creates problems.



How do skeletal muscles work?

- Antagonistic muscles that work in opposite pairs
- Synergistic muscles working in groups for a common action



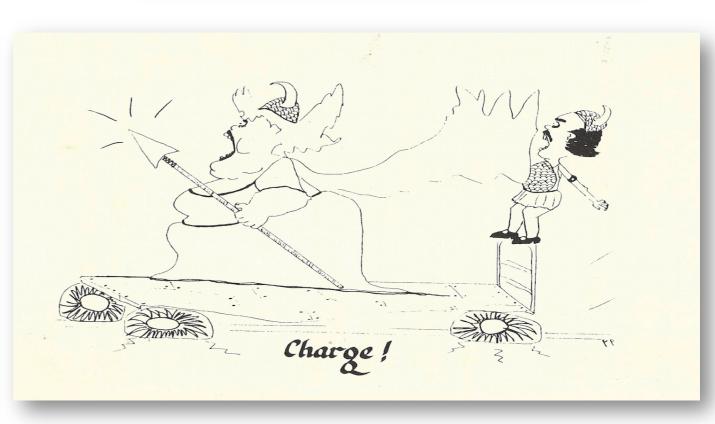
#5

Freeing your body is not just for singing; it has a direct relationship to your physical <u>alignment</u>, <u>energy, health, voice, breathing</u>, and image. . . . A balanced, free, and <u>flexible</u> body is fundamental to efficient vocal production and lovely vocal quality. The alignment of the breathing mechanism — the <u>chest</u>, the voice box (<u>larynx</u>), and the throat (<u>resonator</u>) — is the starting point for healthy singing.







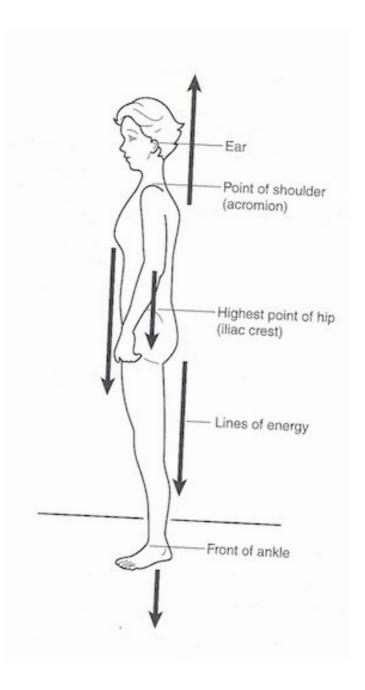




Kathleen Battle, soprano

#6

 One habit that drains energy is **pushing** the head forward rather than aligning it over the shoulders....Experts in physical function...have agreed on the following description of good posture. When a plumb line is dropped beside you, it falls through the **ear**, the point of the **shoulder**, the highest part of the **hip-bone**, just behind the **knee cap** and barely in front of the **ankle**.



7

 Know the "Guidelines for Good Physical Balance" on p. 262.

#8

 Always do all of the "Finding Out For Yourself" activities, as well as there "More Ways to Improve Your Alignment" on p. 263.