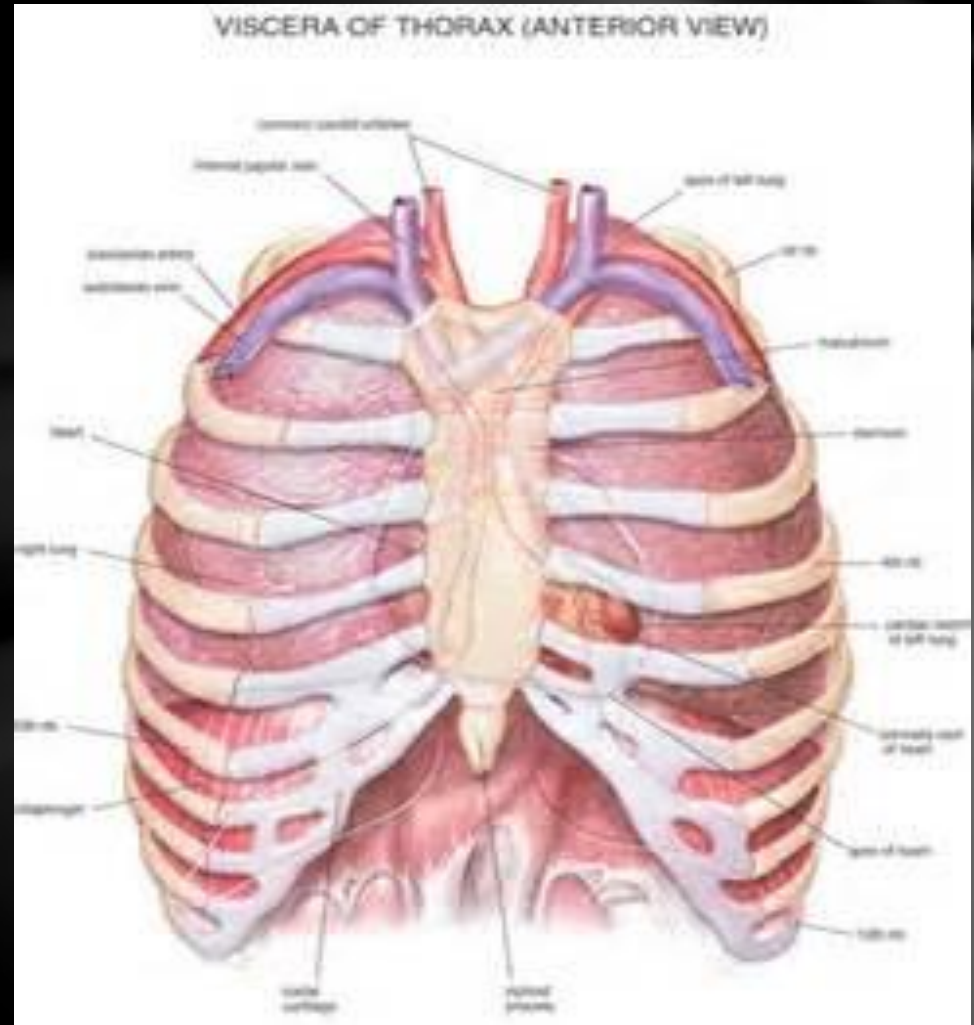


Thorax & Abdomen

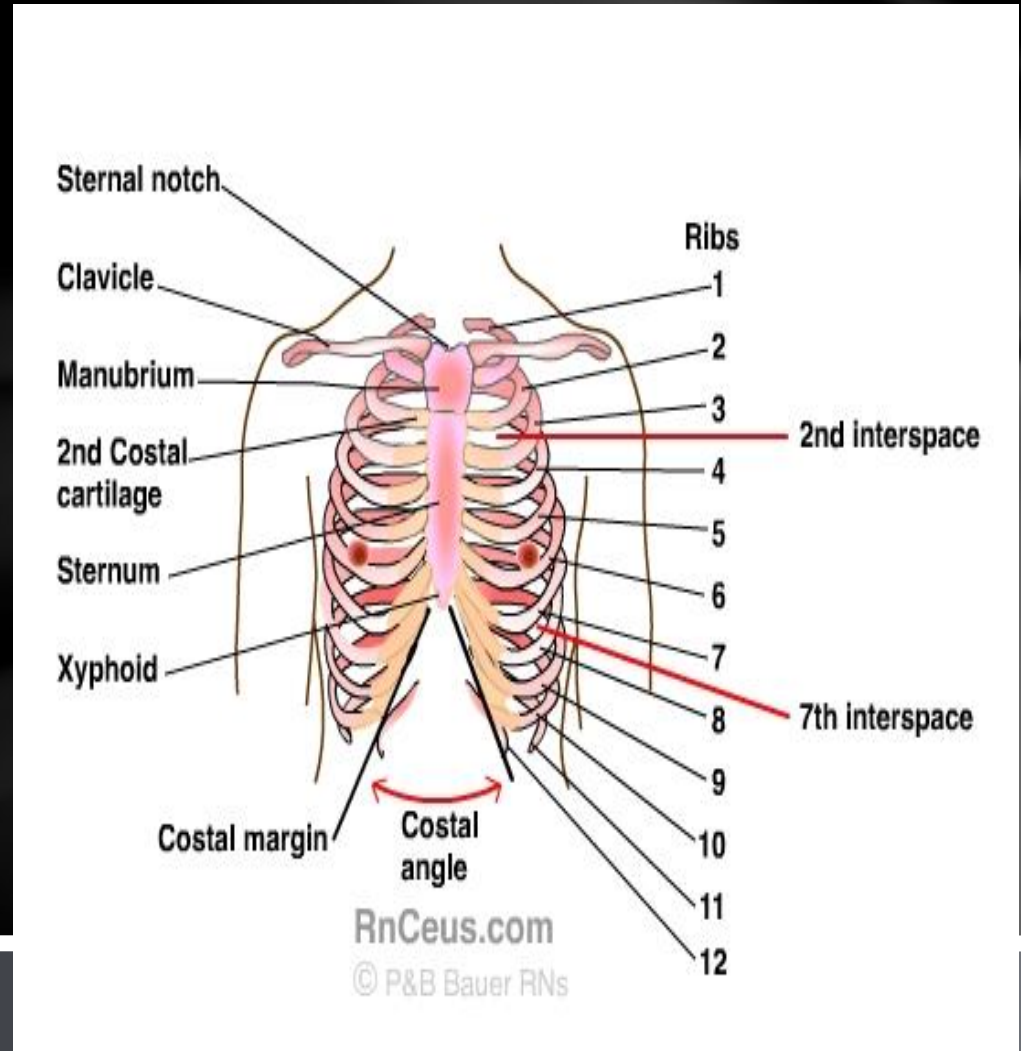
Anatomy of the Thorax

- The thorax consists of the chest which contains the ribs.
- Its function is to protect the vital organs and assist with the circulatory and respiratory systems.



Bones of the Thorax

- Ribs
 - 12 on each side
 - The upper 7 are true
 - Ribs 8-10 are false
 - Ribs 11-12 are floating
 - Ribs 1-10 are all connected by costal cartilage



More Thorax and Abdomen Anatomy

Sternum or Breast Bone is located in the center of the chest. Parts of the Sternum include:

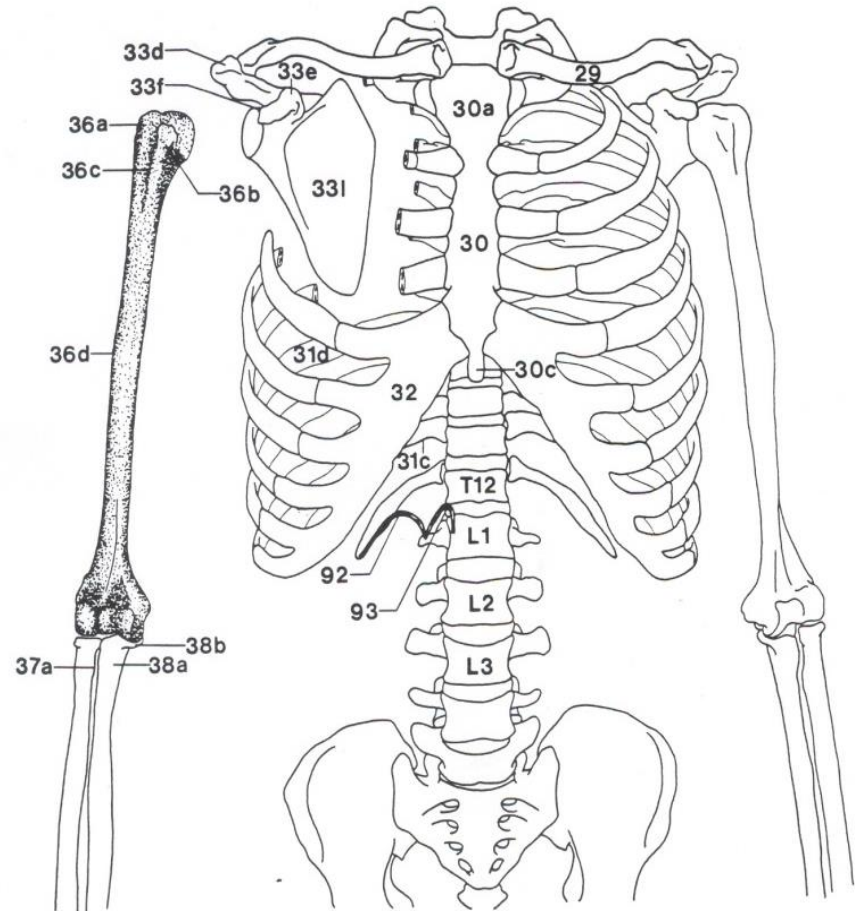
- Manubrium
- The Sternal Body
- Xiphoid Process

Thoracic Spine (T₁-T₁₂)

Lumbar Spine (L₁-L₅)

RIB CAGE, PECTORAL GIRDLE, UPPER ARM—ANTERIOR VIEW

(Ribs partially removed, right arm disarticulated)



Anatomy of the Abdomen

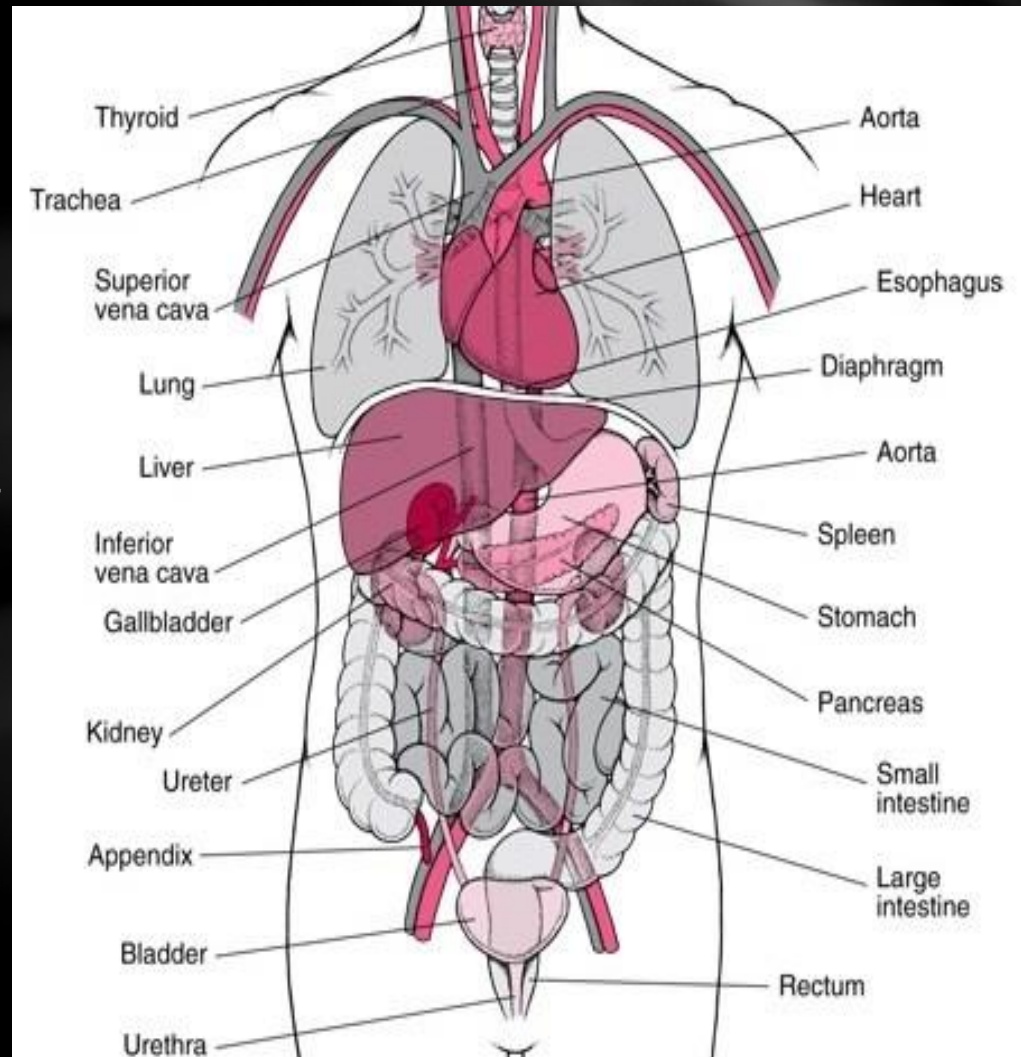
Consist of hollow and solid organs.

- Solid organs

Kidneys, spleen, liver, pancreas, and adrenal glands.

- Hollow organs

Stomach, intestines, gallbladder, and urinary bladder.



Know the Quadrants and its Contents

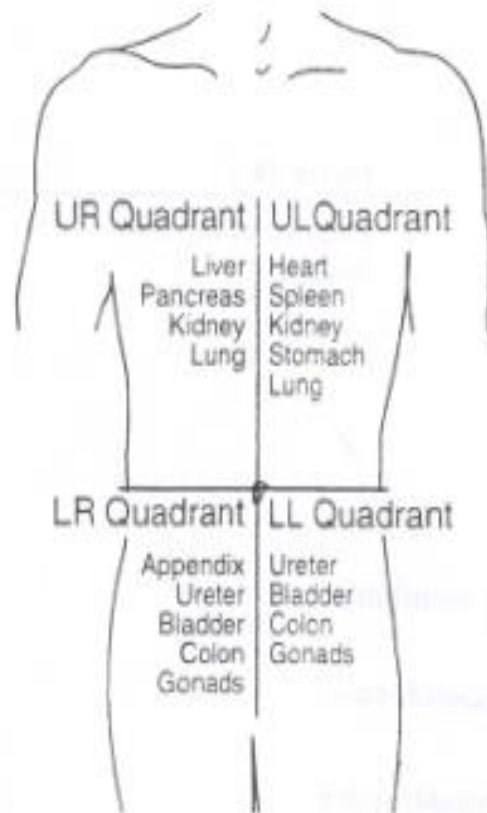


Figure 10-10. Abdominal quadrant reference system. The sagittal quadrants are relative to the athlete. Therefore, the right kidney is on the athlete's right-hand side.

IMPORTANT!!!!!!LEARN THIS INFORMATION!!!!!!

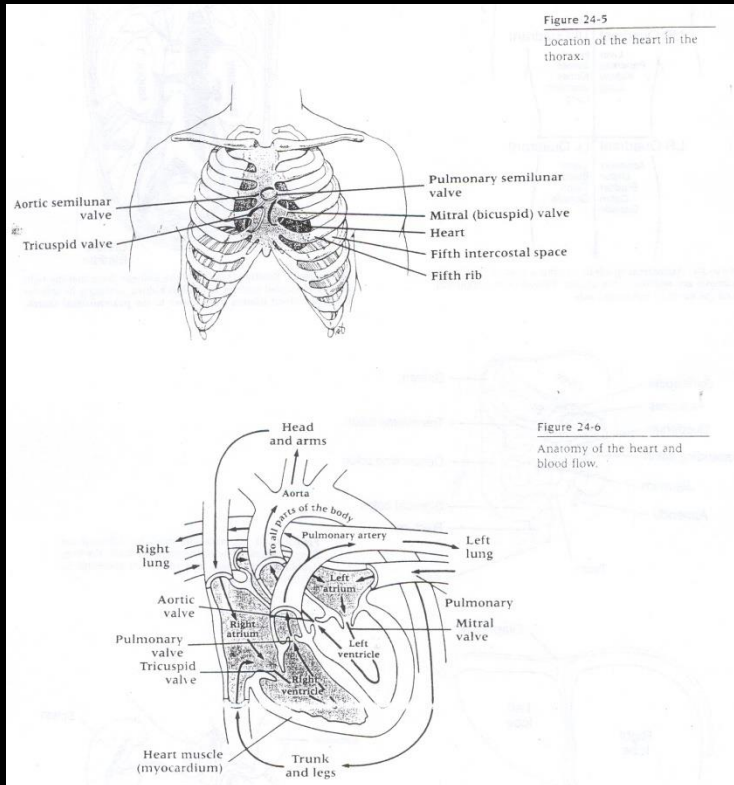
Upper Right: Liver, Pancreas, Kidney, and Lung, Gall Bladder

Upper Left: Heart, Spleen, Kidney, Stomach, and Lung

Lower Right: Appendix, Urinary Bladder, Ureter, Large Intestine (Colon), Small Intestine, and Reproductive System (Gonads)

Lower Left: Ureter, Urinary Bladder, Large Intestine (Colon), Small Intestine, and Reproductive System (Gonads)

ORGANS: The HEART

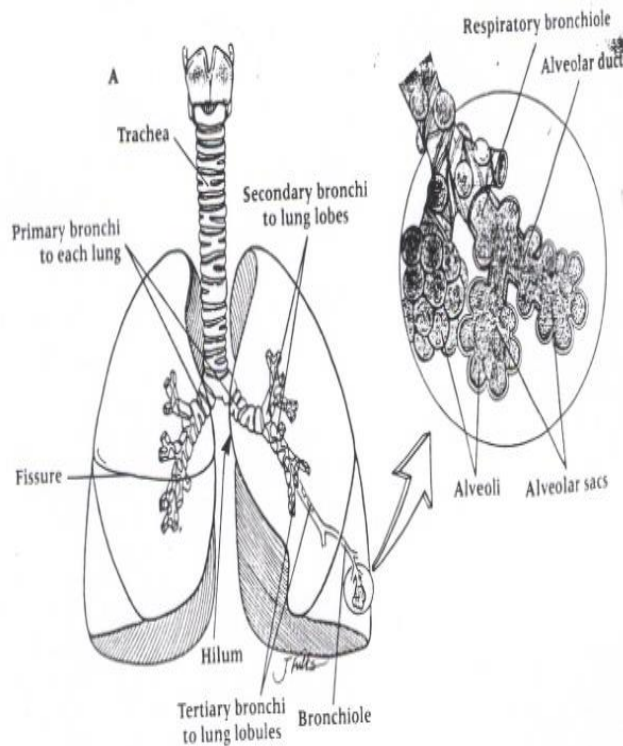


• The Heart continuously propels oxygen, nutrients, wastes, and other substances into the connecting blood vessels.

• We couldn't live without our HEART!

ORGANS: The Lungs

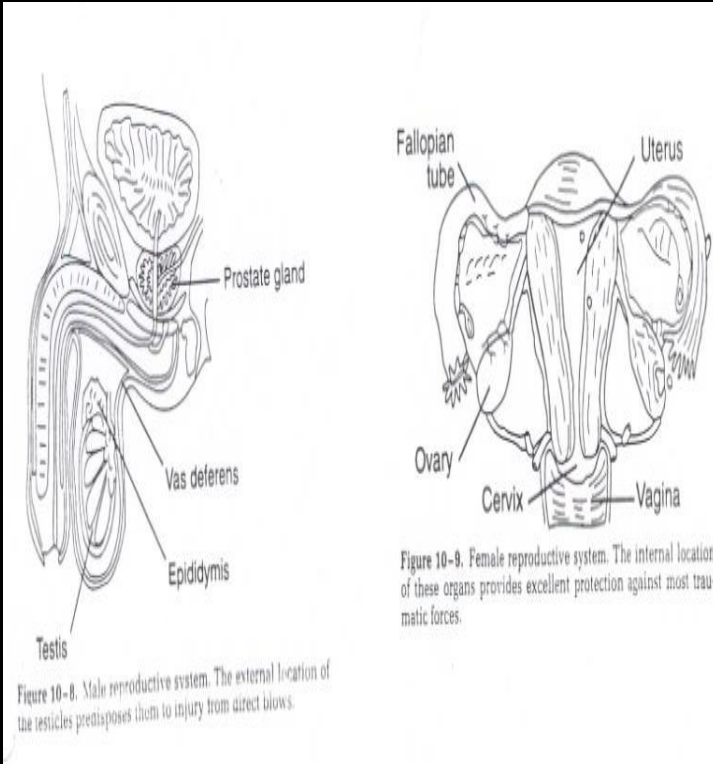
Figure 24-4
Anatomy of the trachea,
lungs, and alveoli.



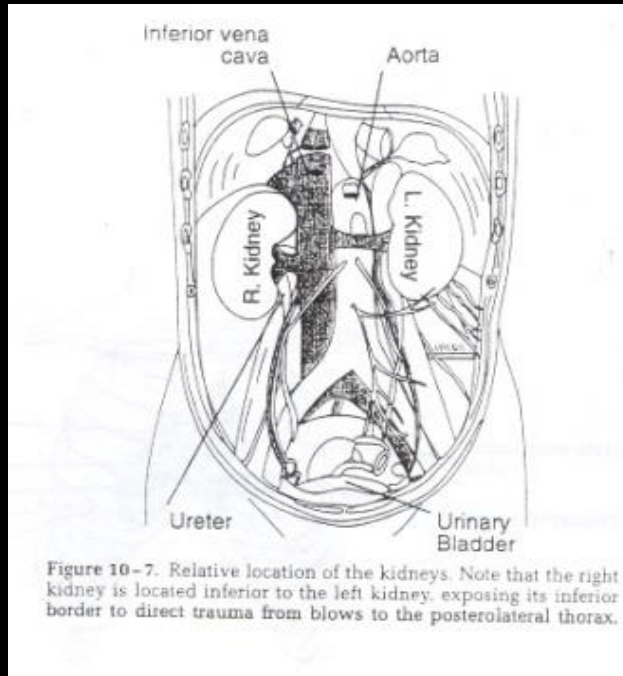
- The lungs assist in pulmonary ventilation (breathing).
- We couldn't BREATHE without them.

More Organs: Reproductive System

Male Reproductive Organs and Female Reproductive Organs are needed to Reproduce. 😊



More Organs: Kidneys, Ureter, and Urinary Bladder



Kidneys maintain the consistency of fluids in our internal environment. They also help Filter waste.

You are able to live without a kidney.

Ureters are tube like organs that help transport urine from the kidneys to the bladder.

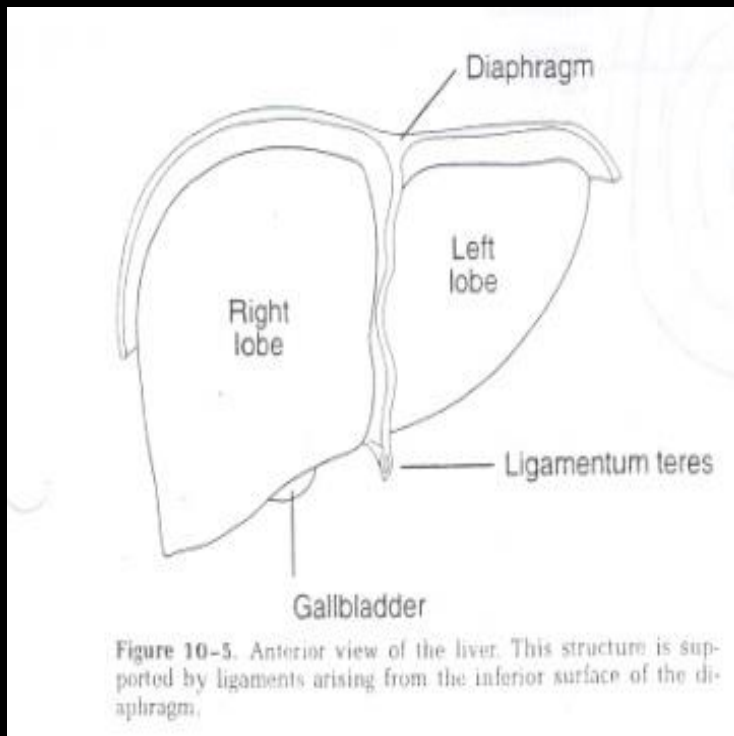
Urinary Bladder is a temporary storage reservoir for urine.

Urethra is a muscular tube that drains urine from the bladder out of the body.

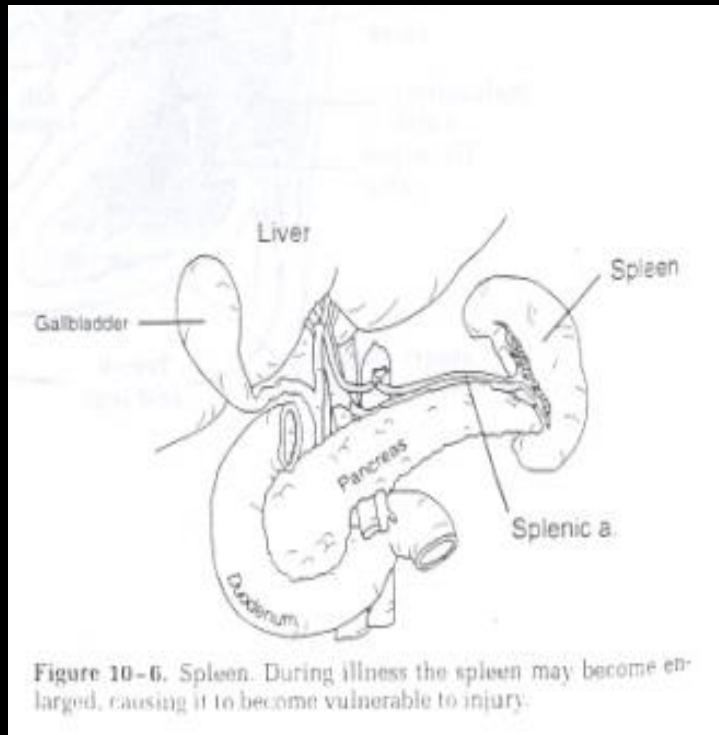
More Organs: Liver

Liver produces bile to help digest fat and it has other metabolic and regulatory functions.

It helps filter and process nutrient rich blood.



More Organs: Spleen, Pancreas, and Gallbladder

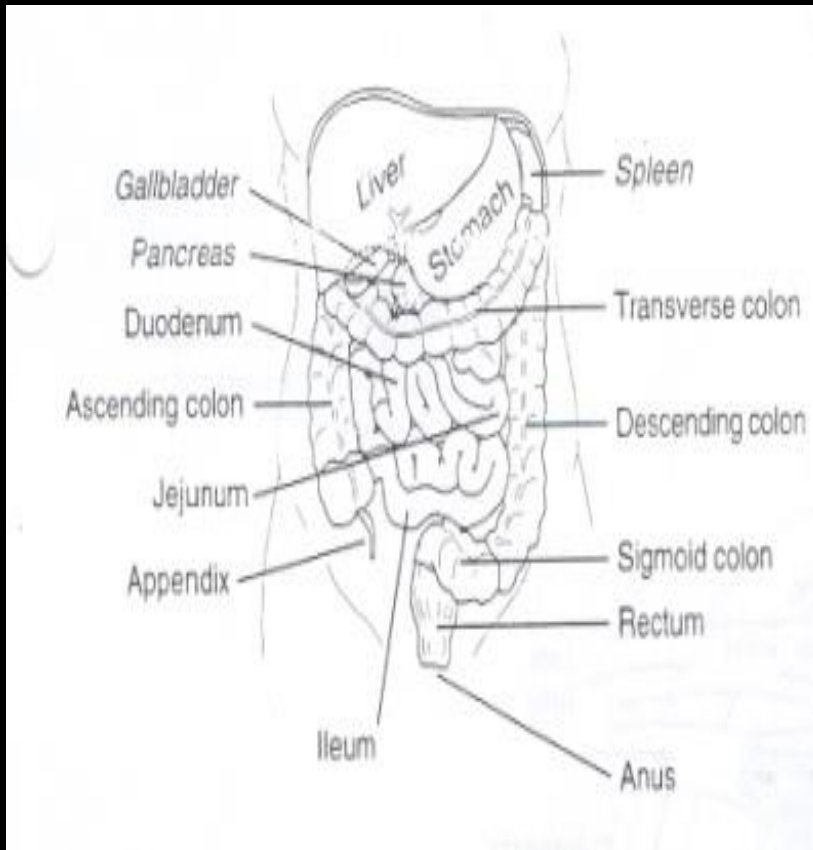


Spleen aids the immune system. It has blood cleansing functions too. It extracts aged and defective blood cells and platelets for later use. It is the site of erythrocyte production and it stores blood platelets.

Pancreas produces enzyme rich juice in the small intestine to aid in digestion. It also helps regulate blood sugar by secreting insulin.

Gallbladder is an accessory digestive organ. It stores bile produced by the liver.

More Organs



Stomach is a temporary storage tank where the chemical breakdown of food begins. Food is converted to a creamy paste called chyme in the stomach. Your stomach can hold up to a GALLON of food!

Small Intestine processes food and passes the waste into the large intestine.

Large Intestine frames the small intestine. Its major function is to absorb water from indigestible food and eliminate the solid waste from the body.

Appendix destroys bacteria.

Muscles of the Thorax- Colors Needed: Blue, Orange, and Green

Inspiration (Inhale): BLUE

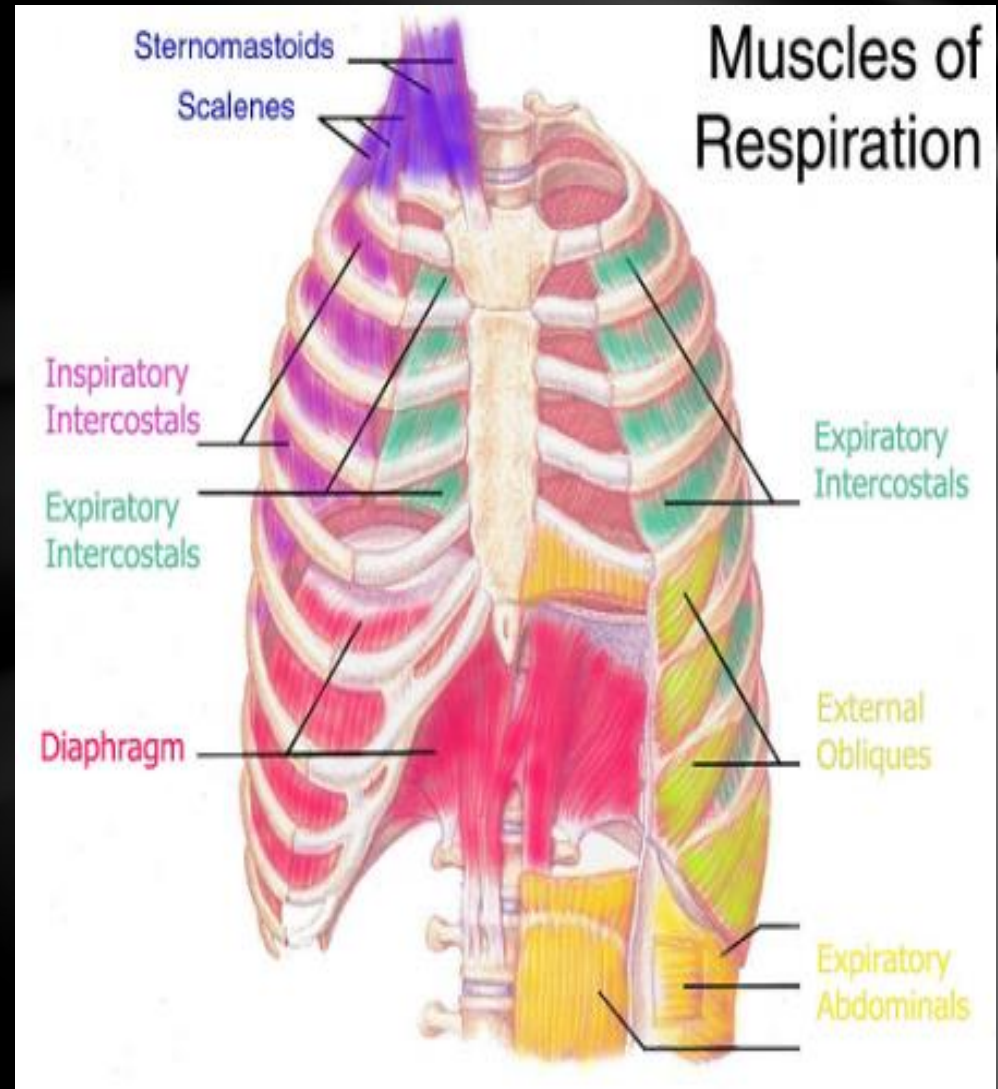
- Intercostales Externus
- Serratus Posterior Superior

Expiration (Exhale): ORANGE

- Intercostales Internus

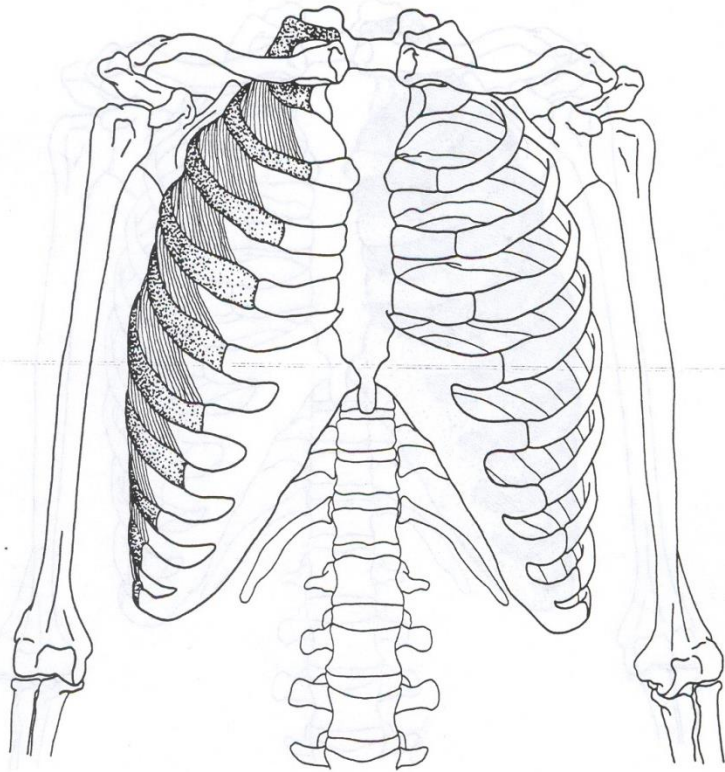
Expands the Rib Cage: GREEN

- Serratus Posterior Inferior
- Diaphragm (it flattens when you inhale)



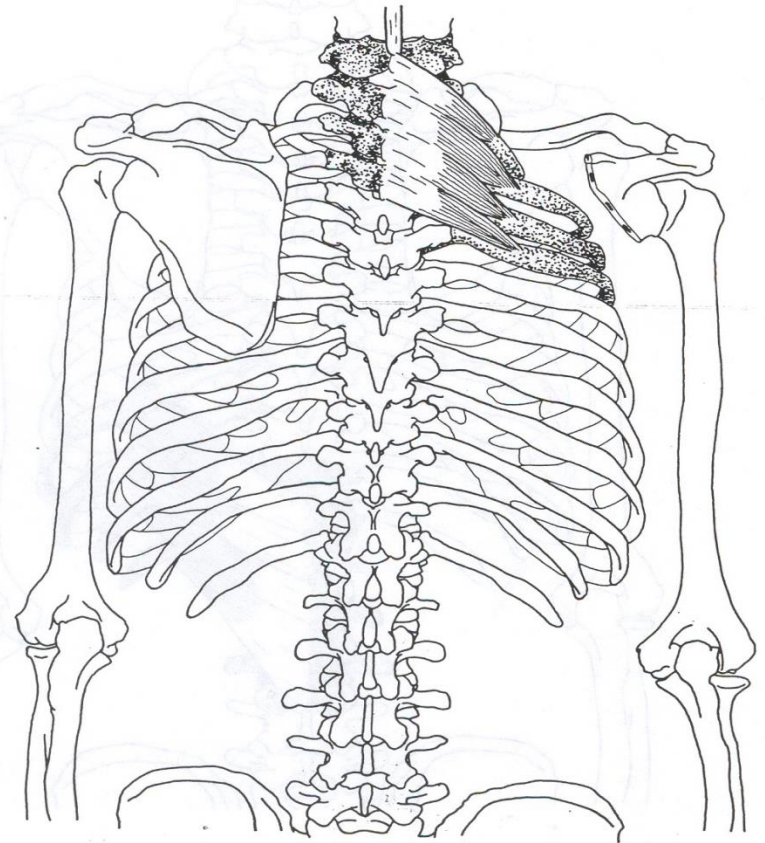
Inspiration (Inhale)

INTERCOSTALES EXTERNI



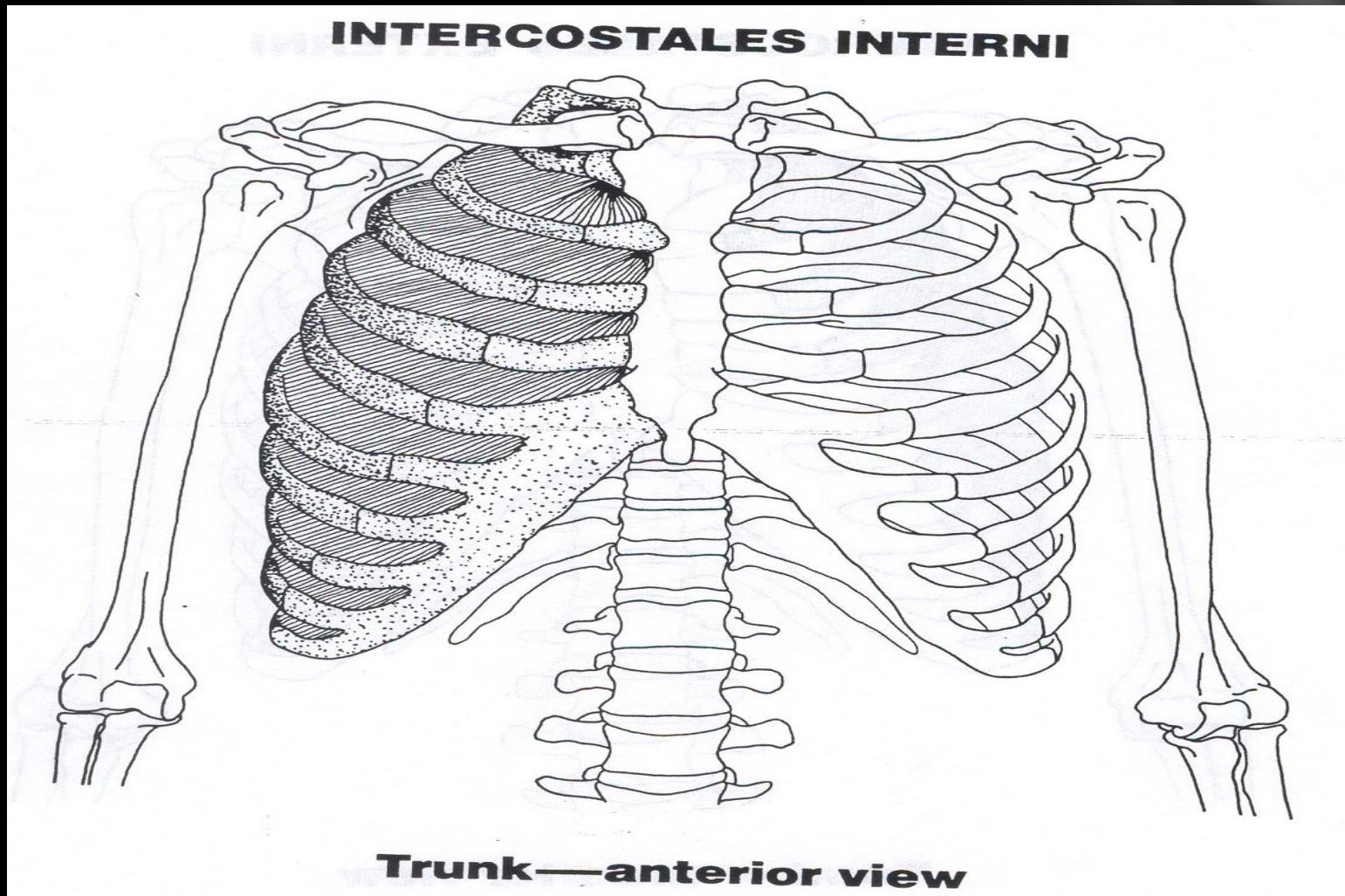
Trunk—anterior view

SERRATUS POSTERIOR SUPERIOR



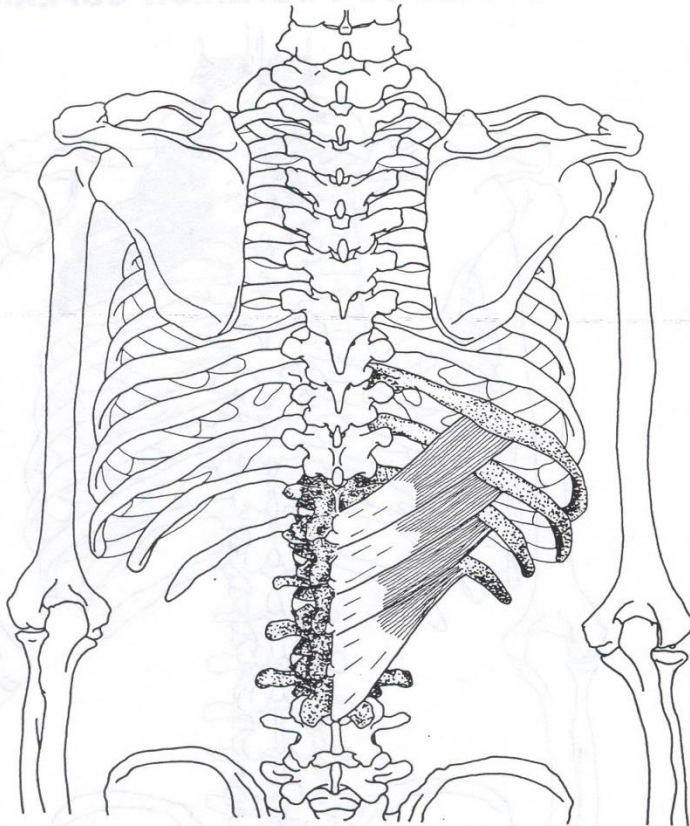
Trunk—dorsal view

Expiration (Exhale)



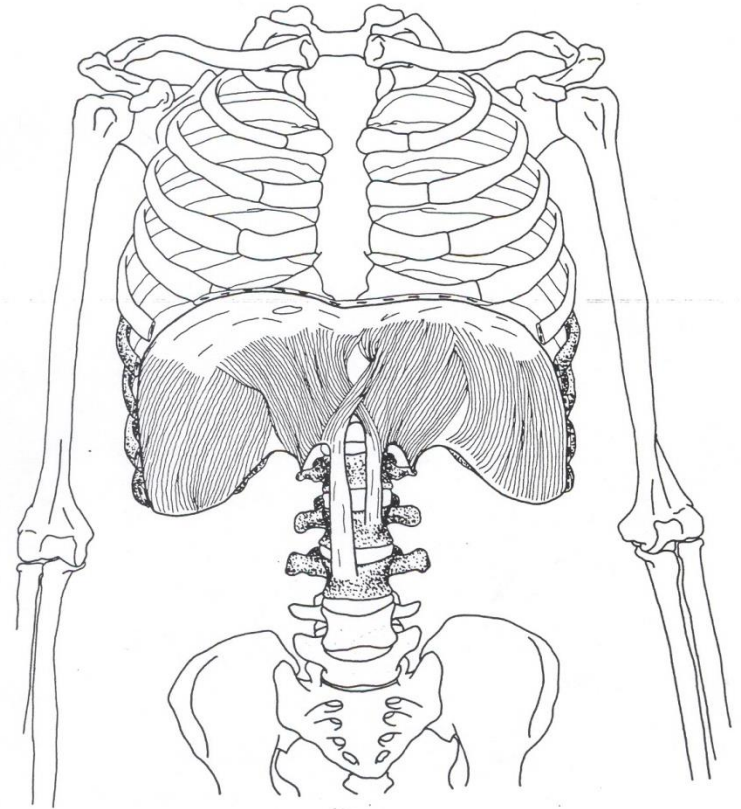
Expands the Rib Cage-they work against each other

SERRATUS POSTERIOR INFERIOR



Trunk—dorsal view

DIAPHRAGM



Trunk—anterior view

(Lower costal cartilages removed)

Muscles of the Abdomen-Colors needed Black, Red, and Yellow

Rotation and Lateral Flexion

(BLACK)

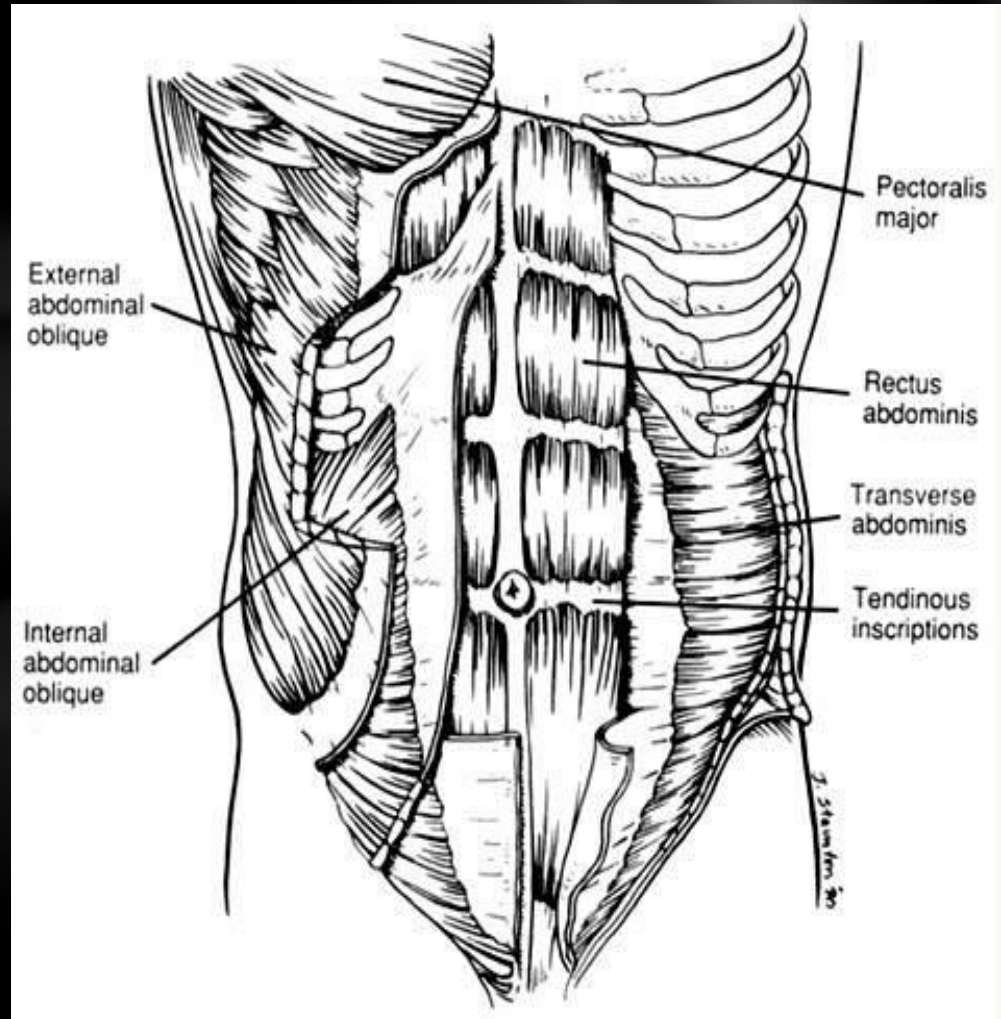
- Obliquus Externus
- Obliquus Internus

Compression (RED)

- Transverse Abdominus

Flexion (YELLOW)

- Rectus Abdominus



Range of motion (Cont.)

- Torso Flexion

- i. Moving the torso forward through the sagittal plane



Range of motion (Cont.)

- Torso Extension

- i. Moving the torso forward through the sagittal plane



Range of motion (Cont.)

- Torso Lateral Flexion

- i. Moving the torso laterally (side to side) in the frontal planes



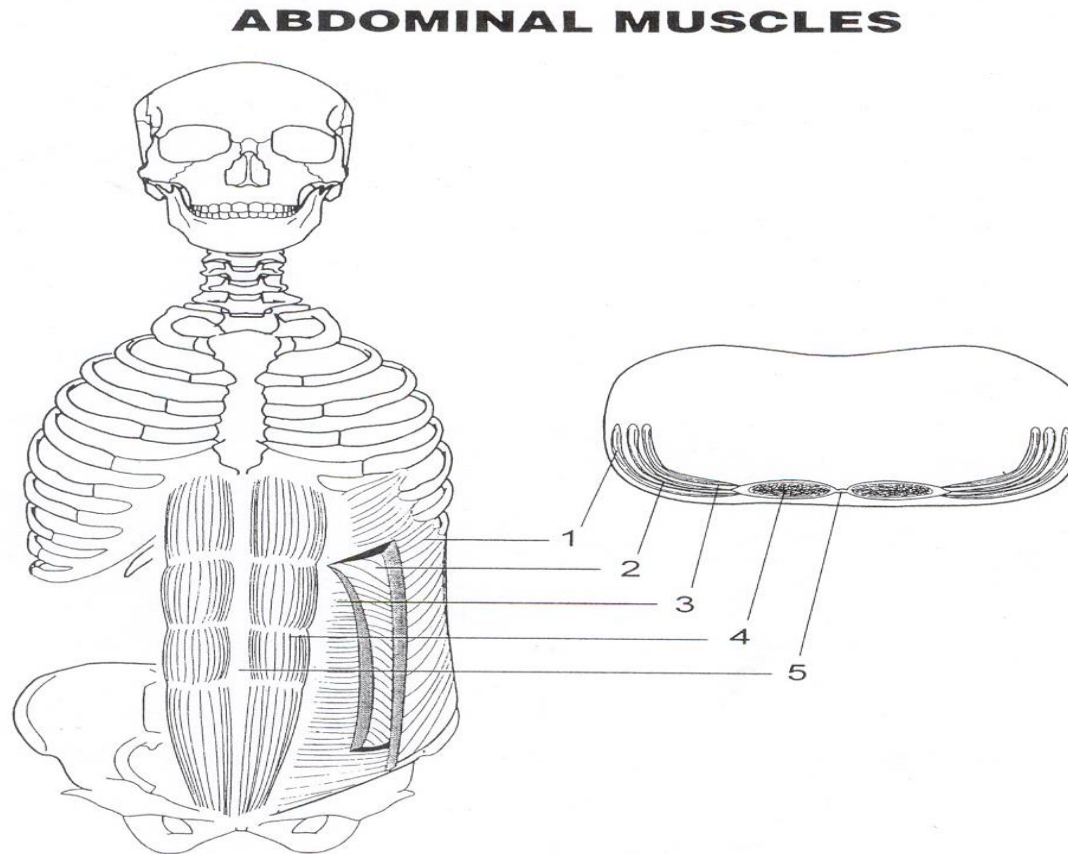
Range of motion (Cont.)

- Torso Rotation

- i. Rotating the torso in the transverse plane



ABDOMINAL MUSCLES

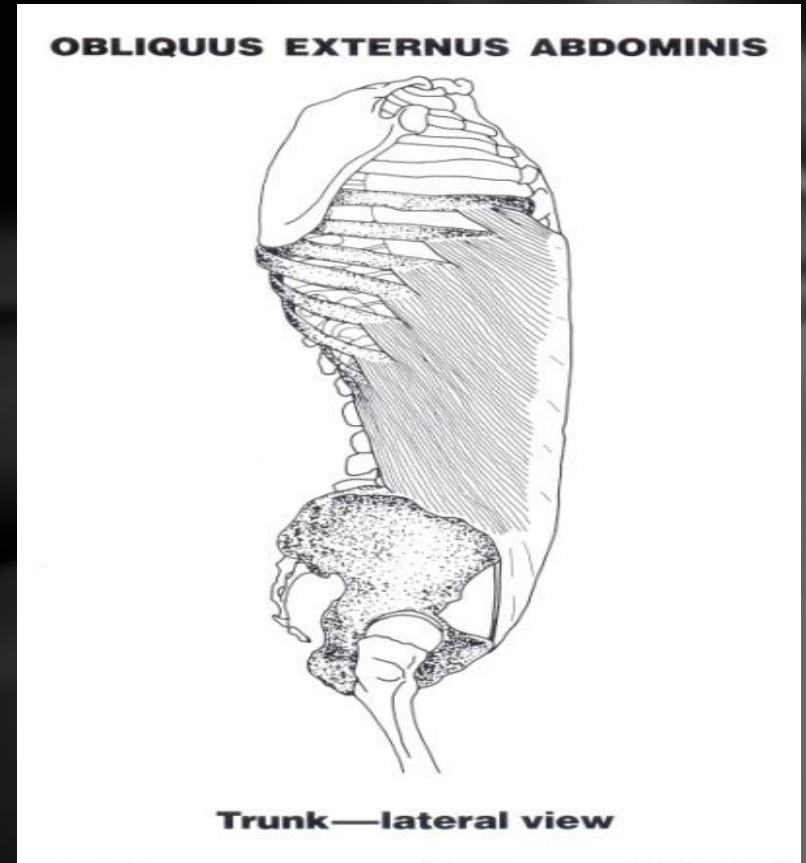
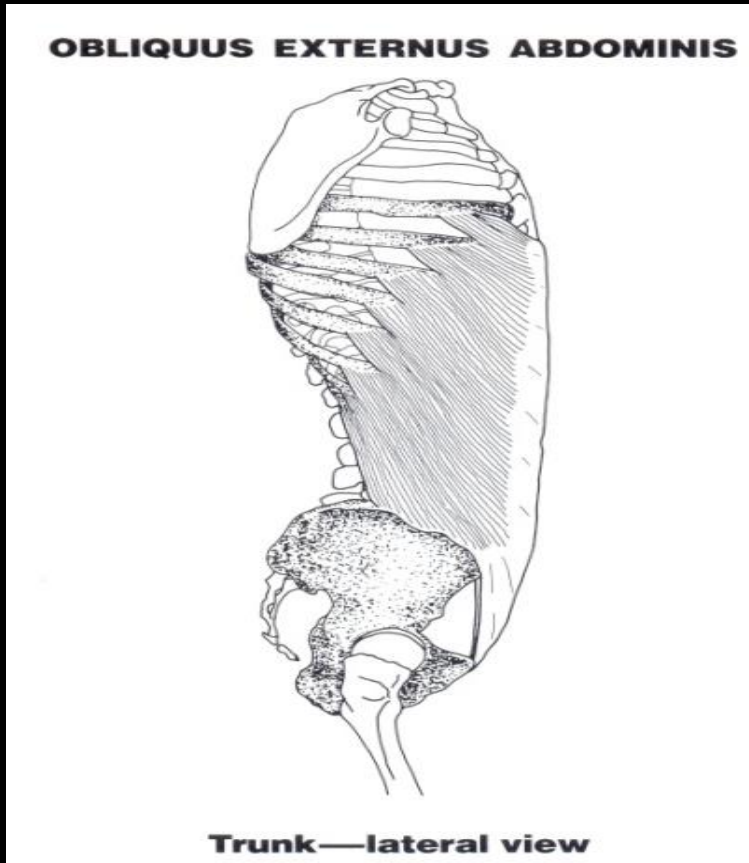


Trunk—anterior and cross-sectional views

1. Obliquus externus abdominis
2. Obliquus internus abdominis
3. Transversus abdominis

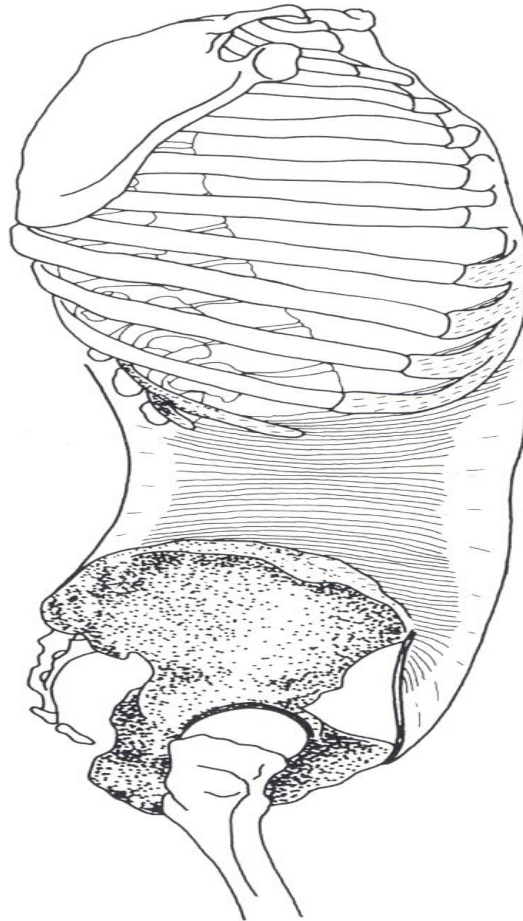
4. Rectus abdominis
5. Linea alba

Rotation and Lateral Flexion (Black)



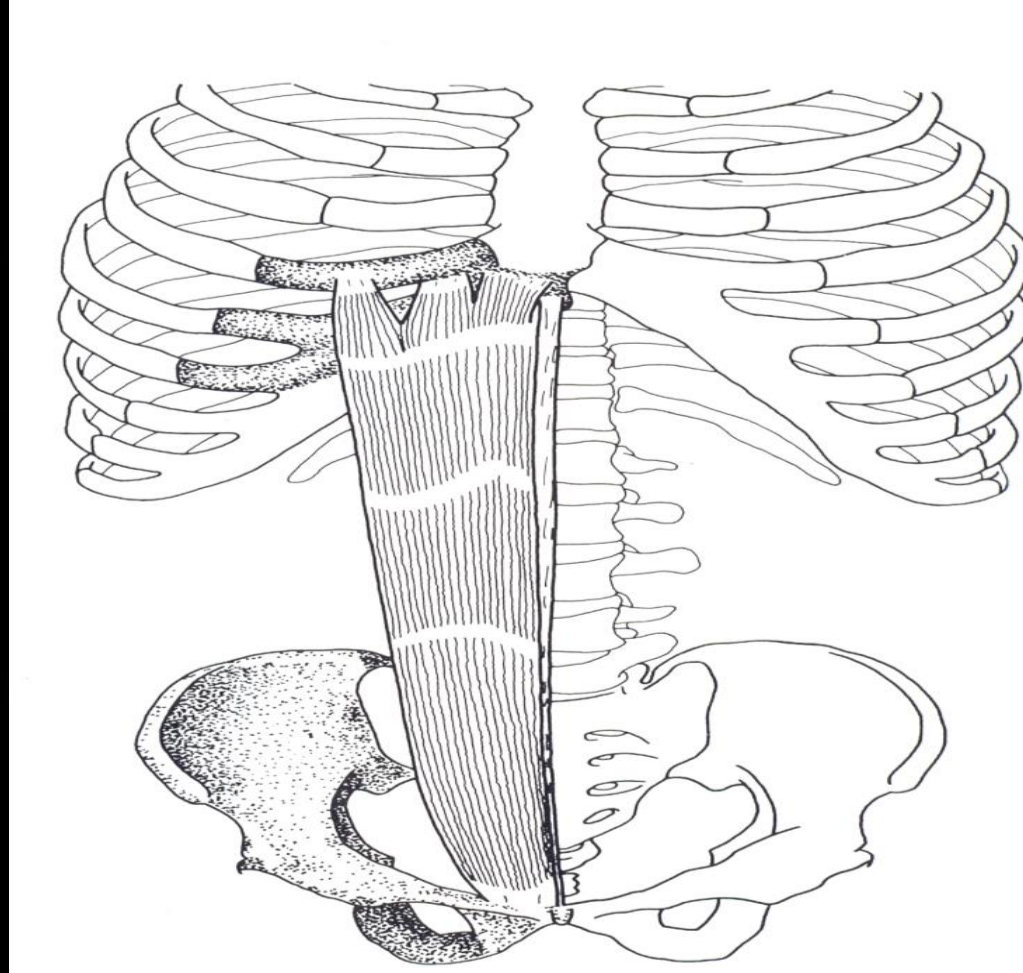
Transverse Abdominis: Compression

TRANSVERSUS ABDOMINIS



Trunk—lateral view

Rectus Abdominus: Flexion



Flashcard FUN!!!

Muscles of Thorax	Muscles of the Abdomen
Inspiration (Inhale) BLUE	Rotation and Lateral Flexion BLACK
Expiration (Exhale) ORANGE	Compression RED
Expands the Ribcage GREEN	Flexion YELLOW

Flashcard FUN!!!

Muscles of Thorax	Muscles of the Abdomen
Intercostales Externus Serratus Posterior Superior (BLUE)	Obliquus Externus Obliquus Internus (BLACK)
Intercostales Internus (ORANGE)	Transverse Abdominus (RED)
Serratus Posterior Inferior Diaphragm (GREEN)	Rectus Abdominus (YELLOW)