Anatomy Chapter 1

_____ is the study of the structure and shape of the body and its parts.

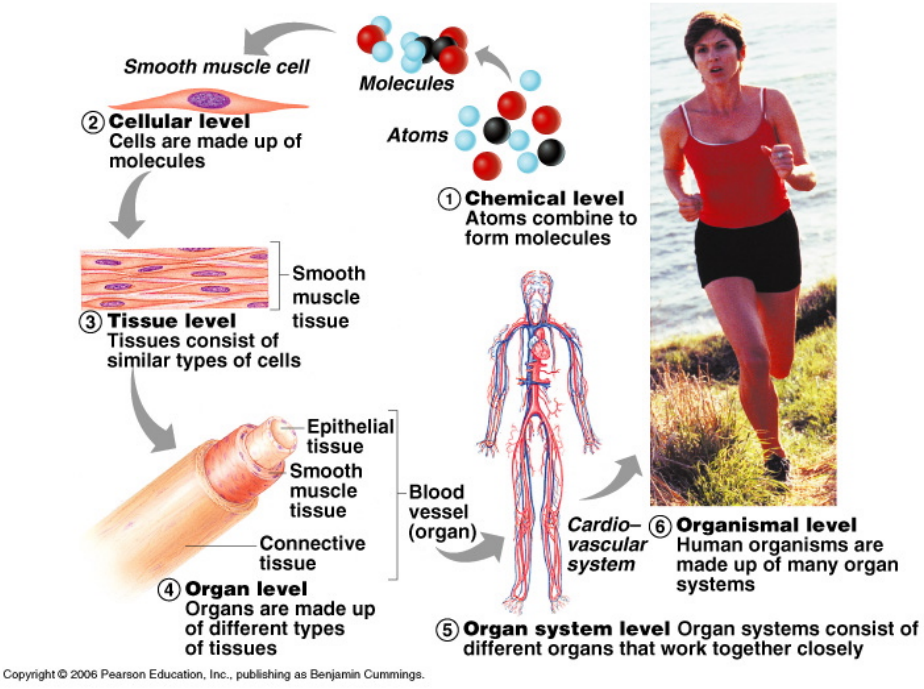
Can be studied on the _____ and include _____,

_____ and _____.

Examples include…

_____ is the study of how the body and its parts work or function.

Examples include…



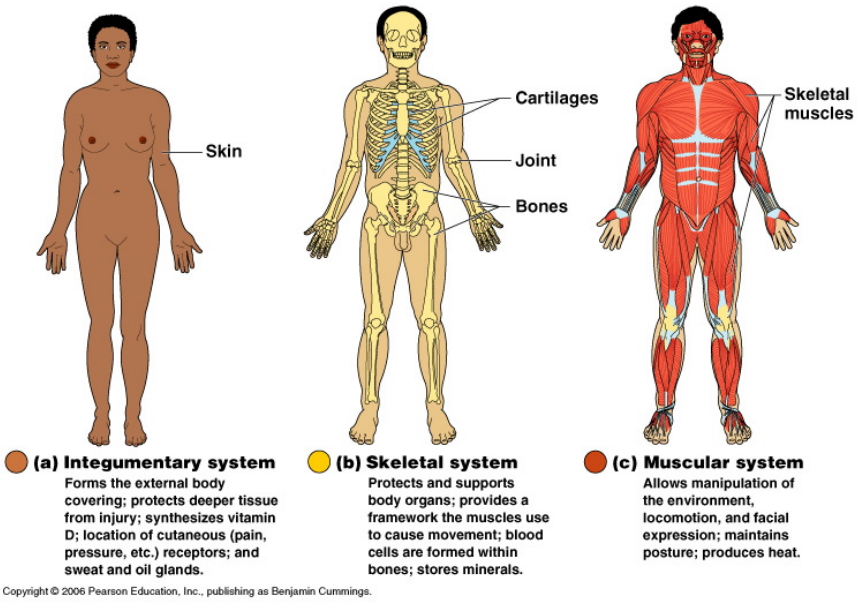
Place the following words in order of increasing complexity.

ORGAN SYSTEM CELL ORGANISM ORGAN TISSUE

_____ _____ _____ _____ _____

*Know the order of decreasing complexity as well.

Body Systems



_____-the external covering of the body (_____)

What are the functions of the skin?

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-

What are some types of damage the skin can incur?

What is the skeletal system composed of?

What is its function?

What are the four functions of the muscular system?

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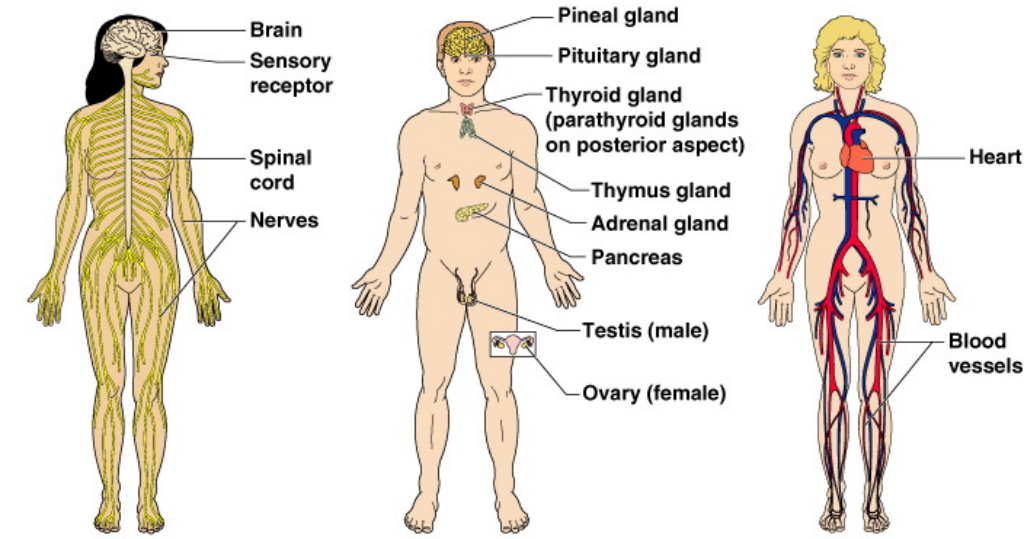


Is the nervous system fast or slow action?

What is the function of the nervous system?

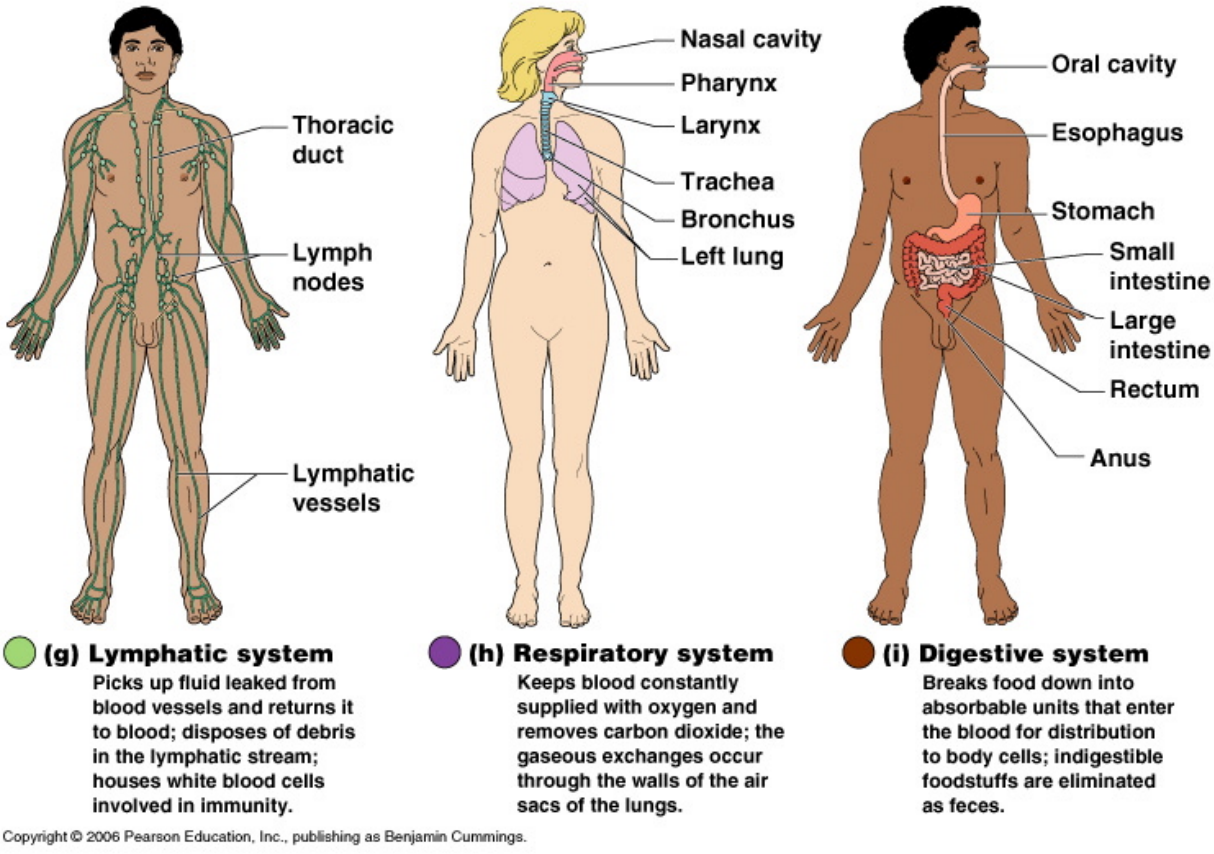
What is regulated by the endocrine system?

What is secreted by the endocrine system?

List six glands:

What pumps the blood around the circulatory system?

What is transported around the circulatory system?



What are the three functions of the lymphatic system?

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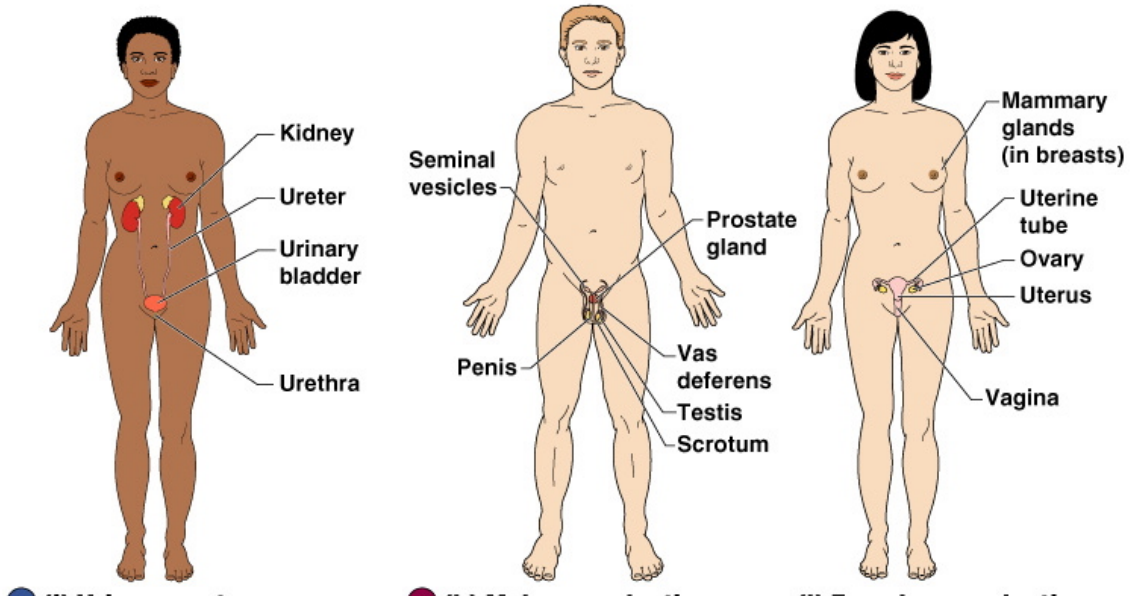
How does the respiratory system maintain proper levels of gasses?

What organs are used?

What are the functions of the digestive system?



(j) Urinary system
Eliminates nitrogenous wastes from the body; regulates water, electrolyte, and acid-base balance of the blood.

(k) Male reproductive system

(l) Female reproductive system

Overall function of the reproductive system is production of offspring. Testes produce sperm and male sex hormone; ducts and glands aid in delivery of viable sperm to the female reproductive tract. Ovaries produce eggs and female sex hormones; remaining structures serve as sites for fertilization and development of the fetus. Mammary glands of female breast produce milk to nourish the newborn.

What is eliminated from the excretory system?

What is regulated?

What is the function of the reproductive system?

What is produced by the male reproductive system?

How does the female reproductive system prepare for a new baby?

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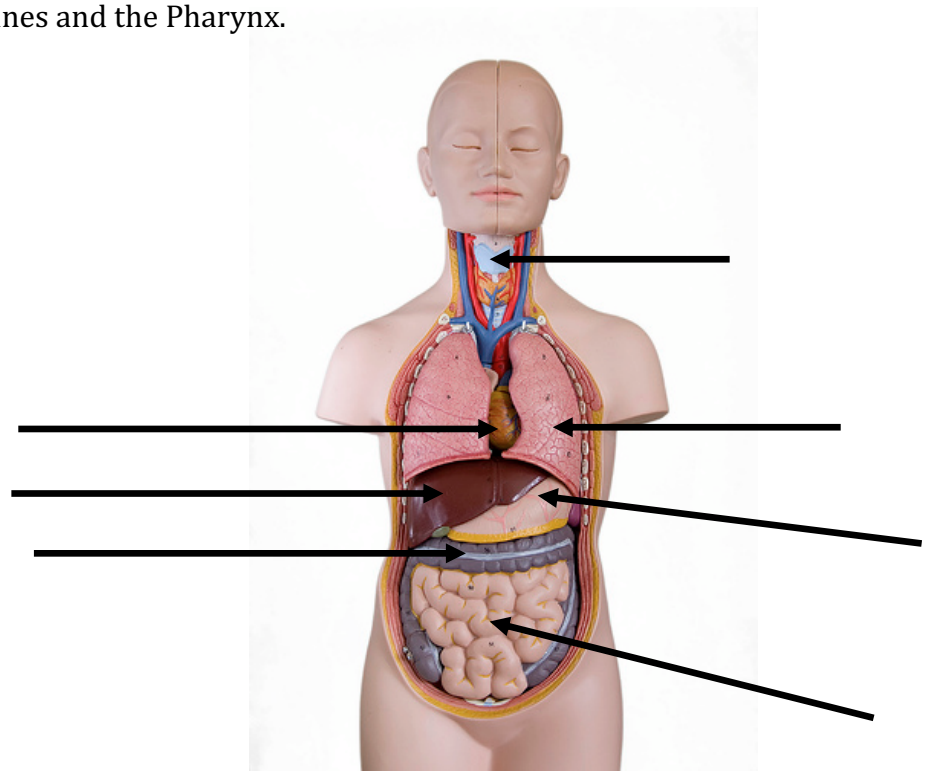
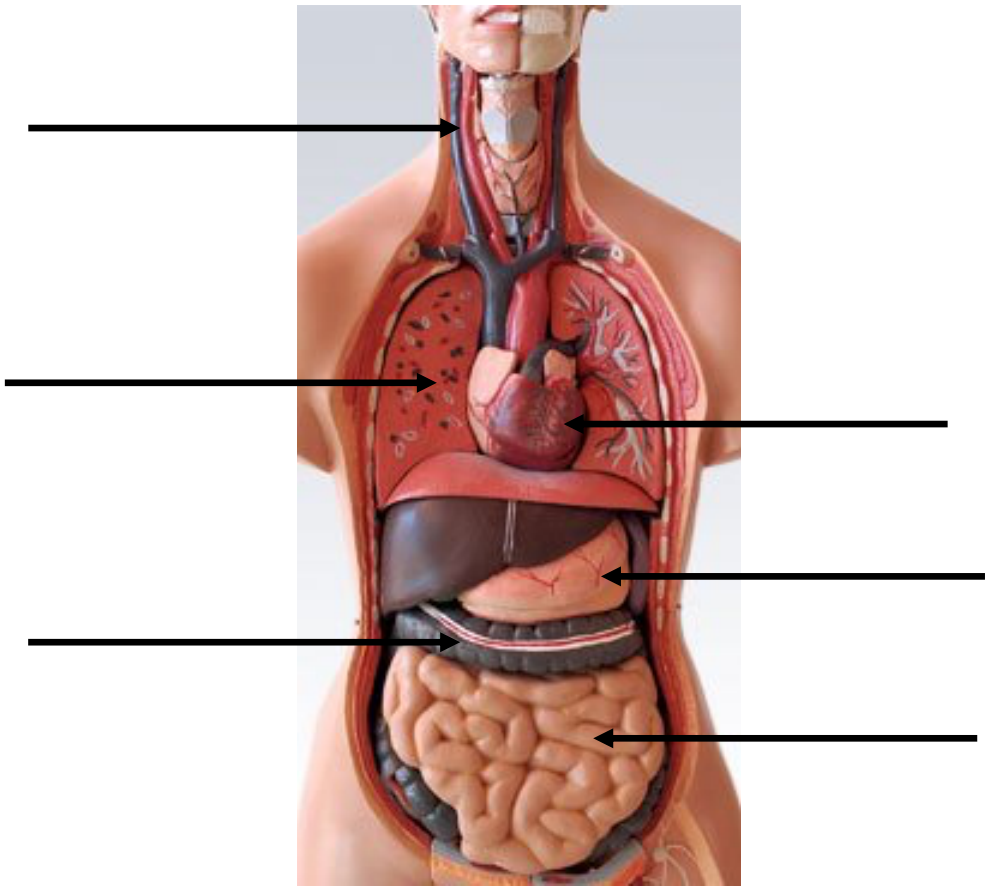
Label the following on the diagram. Small Intestines, Heart, Lungs, Liver, Stomach, Large Intestines and the Pharynx.



Label the following on the diagram. Small Intestines, Heart, Lungs, Blood Vessels, Stomach, and Large Intestines.



How did the large intestines get their name?

Maintaining Boundaries

Keeps the body's internal environment distinct from the external environment.

Movement- Includes all the activities promoted by the _____ system.
Examples include:

Responsiveness-Ability to react to _____.

- Major role of the _____ system.

Digestion-Food ingested is broken down to its chemical _____.

Metabolism-All _____ reactions that occur within body cells.

- _____ complex molecules into smaller ones and makes larger molecules from smaller ones.
- Uses nutrients and oxygen to produce _____. Process called _____
- Regulated by hormones secreted by the glands of the endocrine system.

Excretion-Elimination of _____ by the lungs and elimination of _____ wastes by the kidneys.

Reproduction-Provides new cells for _____and _____.

Growth-Increase the number of cells _____ than they are _____.

Survival Needs

Nutrients-Taken in via the diet and contain chemicals used for energy and cell building.

Examples include:

Water- _____% of the body's weight that provides fluid for body's _____ and _____

Oxygen-Oxygen is necessary to release energy from chemical reactions that take place in the body.

- Needed to release _____ from food.

- _____% of the air we breathe is oxygen.

Body Temperature- Must remain at _____ (_____) What happens if the temp is too high or too low?

- Too Low-

- Too High-

Atmospheric Pressure-Breathing depends on the pressure exerted on the body.

- If the altitude is too high (lower pressure) gas exchange may be to low to support metabolic activity.
- Mountain climbers need to bring oxygen tanks because oxygen is needed to support metabolic activities.

Homeostasis-The tendency of the body's systems to maintain a relatively _____ or balanced internal environment.

Homeostatic Control Mechanisms-Communication between organ systems is essential.

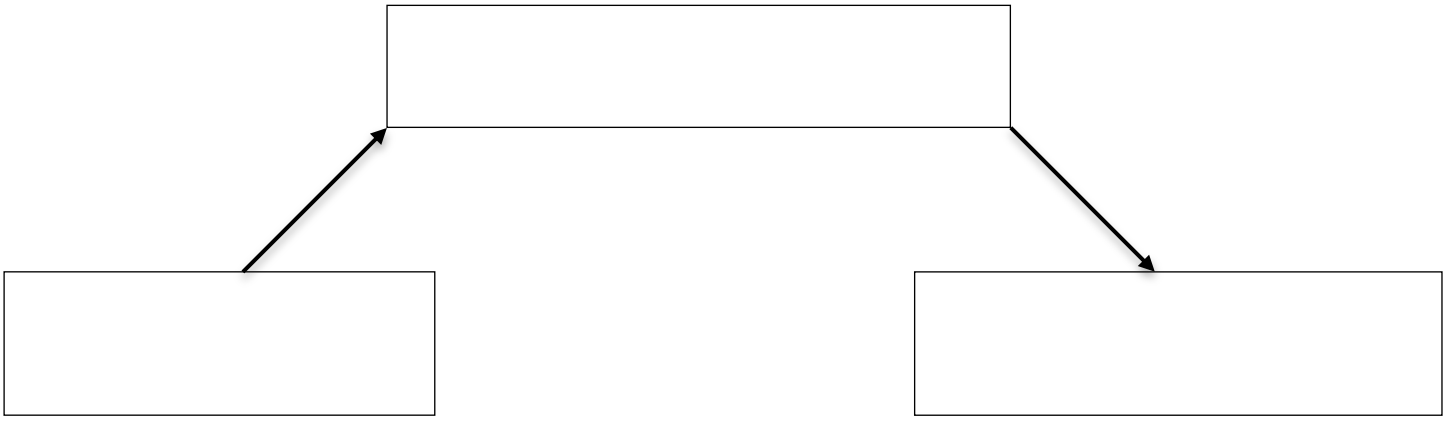
- The_____ and _____ systems are chiefly responsible through chemical or electrical responses.

Receptor-A sensor that monitors changes in the environment called stimuli. Message is sent to the control center along the afferent pathway

Control Center-Analyzes the information from the receptor and determines the appropriate response.

Effector-Control center determines the response and activates the effector.

- Provides the means for the control centers response to the stimulus along the efferent pathway.
- The effector is usually a muscle or gland.



Negative Feedback Mechanism-The net effect of the response to the stimulus is to _____ the original stimulus or reduce its effects.

- Example-body releases insulin when sugar is ingested.
- Most common feedback system in the body.

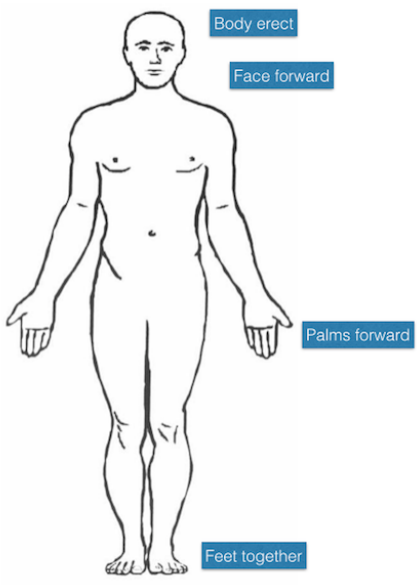
Positive Feedback Mechanisms-_____ or _____ the original stimulus.

- Examples are blood clotting or the birth of a baby.

Language of Anatomy

Anterior means _____ and posterior means _____

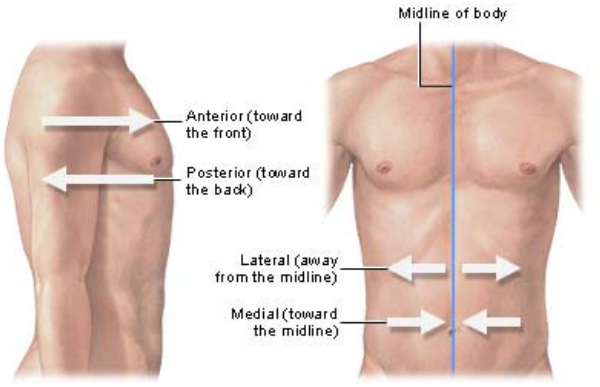
Anatomical position is when someone is facing you with their hands and feet parallel and palms are facing outward.



Medial vs Lateral

Medial-

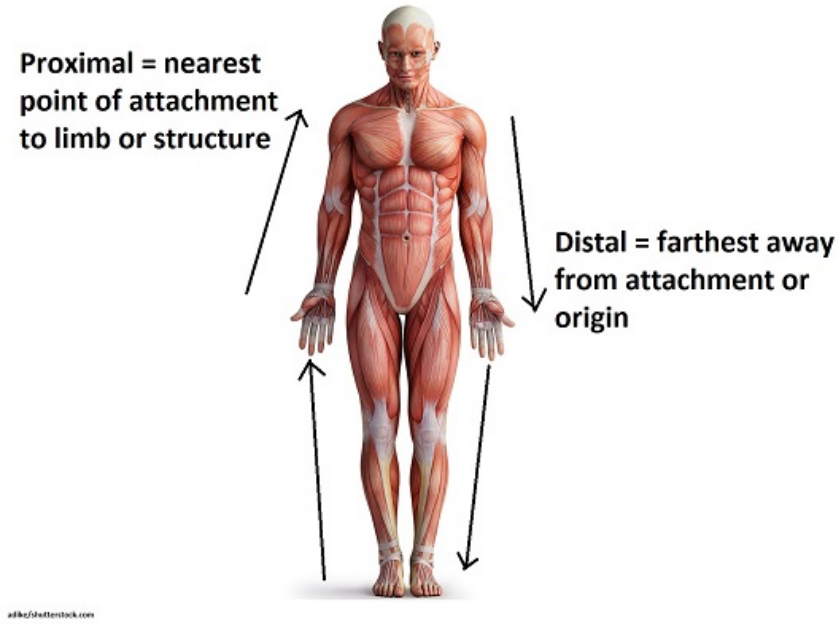
Lateral-



Proximal vs Distal

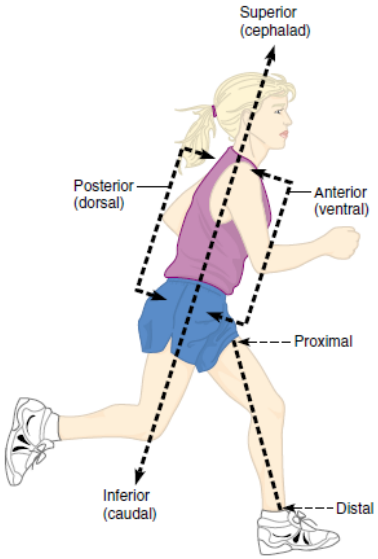
Proximal-

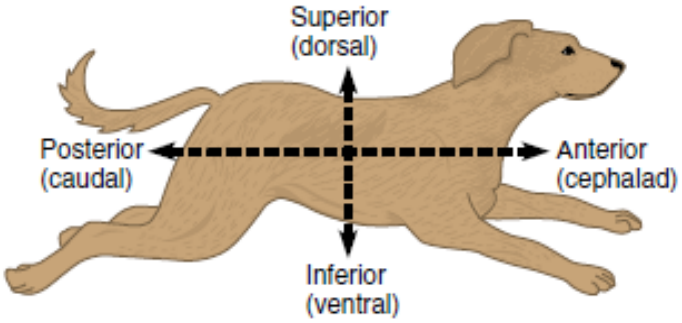
Distal-



Upright vs A 4-Legged Animal

Top of the organism-_____. Bottom of the organism-_____





Your feet are _____ to your knees

The front of your body is _____

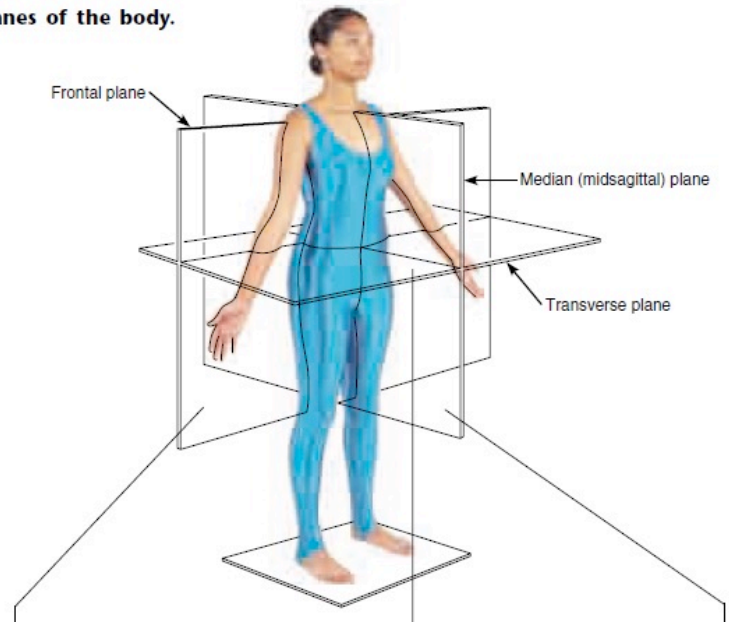
Your nose is _____ to your eyes

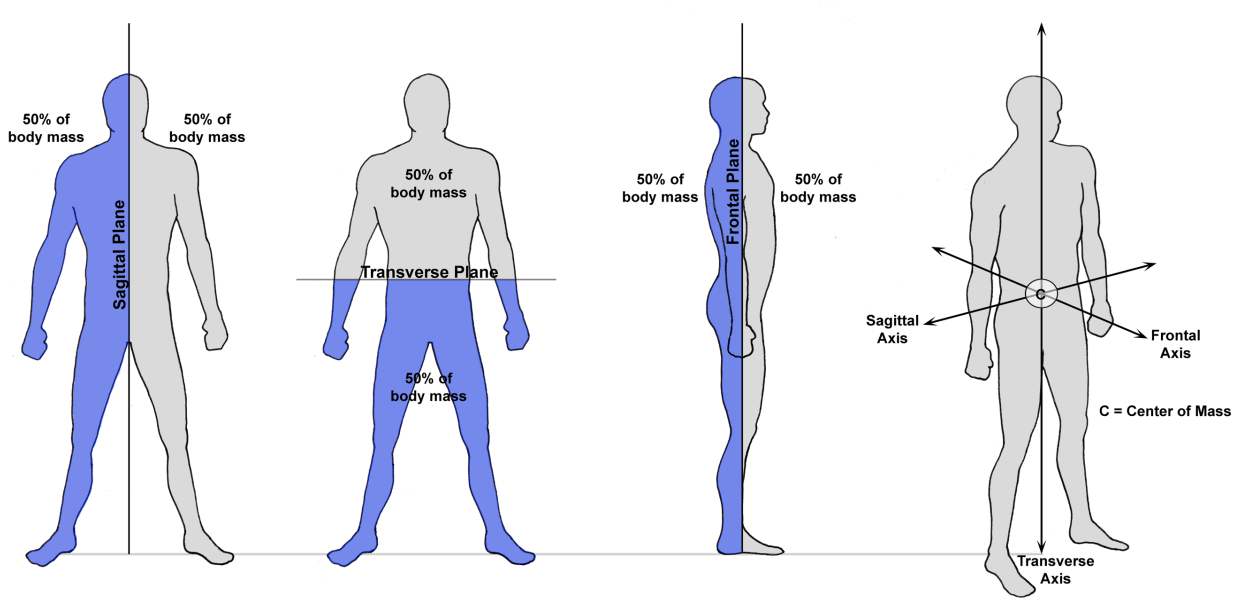
Your head is _____ to your feet

Frontal-

Transverse

Midsagittal-





Body Cavities

Dorsal Body Cavities-Completely surrounded by bone

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Ventral Body Cavities-Partially surrounded by bone

-
-
-

The abdominal and pelvic cavities are typically called the _____ cavity

The _____ separates the thoracic from the abdominal cavity