

BODY SYSTEMS

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Levels of Organization

- ▶ Cells work together to form tissues
- ▶ Tissues work together to form organs
- ▶ Organs work together to form organ systems

Circulatory Systems

- ▶ contains the heart and all the blood vessels
- ▶ Responsible for movement of blood, nutrients, and gases
- ▶ Heart pumps blood to lungs to receive oxygen and then to the rest of the body

Respiratory Systems

- ▶ Responsible for bringing in oxygen and ridding our bodies of carbon dioxide Lungs, diaphragm, and windpipe , Oxygenates our entire body

Skeletal System

- ▶ Includes bones, cartilage, and teeth
- ▶ About 206 bones in the Human Body
- ▶ **4 major functions:**
 - Protection – protects vital organs
 - Storage – stores minerals and fat
 - Movement – muscles pull bones to move
 - Blood Cell Formation – make blood cells

Muscular System

- ▶ The muscular system works with the skeletal system to provide movement.
- ▶ **Voluntary** – muscles move under your control
 - ▶ – Example: skeletal muscles, bicep, quadriceps
- ▶ **Involuntary** – muscles that move without you controlling them
 - ▶ – Example: smooth and cardiac, and sometimes skeletal (eyes blinking)
- ▶ **Tendons** – connect muscles to bones
- ▶ **Ligaments** – connect bone to bone

Excretory System

- ▶ It releases of wastes and regulates bodily fluids.
- ▶ The excretory system is a passive biological system that removes excess, unnecessary materials from the body fluids of an organism, so as to help maintain internal chemical.
- ▶ The dual function of excretory systems is the elimination of the waste products of **metabolism** **and** to drain the body of used up and broken down components in a liquid and gaseous state.

Reproductive System

- ▶ is a system of sex organs within an organism which work together for the purpose of sexual reproduction. Many non-living substances such as fluids, hormones, and pheromones are also important accessories to the reproductive system.

Nervous System

- ▶ The nervous system is the part of an animal's body that coordinates its voluntary and involuntary actions and transmits signals to and from different parts of its body. It receives and sends electrical messages throughout the body.

Endocrine System

- ▶ The endocrine system refers to the collection of glands of an organism that secrete hormones directly into the circulatory system to be carried towards distant target organs.
- ▶ **Some of the major endocrine glands include the:**
pituitary, pancreas, ovaries, testes, thyroid, hypothalamus, and adrenal glands.

Digestive System

- ▶ It breaks down the food you eat into nutrients for your body.
- ▶ The organs known as the accessory digestive glands are the liver, gall bladder and pancreas. Other
- ▶ components include the mouth, teeth and epiglottis.