

How Your Body Is Organized

Levels of Organization

- Organized from Simple to Complex
 - 1. Cells
 - 2. Tissues
 - 3. Organs
 - 4. Organ Systems
 - 5. Organism

Cells

- **Definition:** Cell is the basic unit of **structure and function**
- Your body contains about **100 trillion** cells
- Cells are tiny and only can be seen with a **microscope**
- Each cell contains a nucleus, cytoplasm, cell membrane & other organelles
- Cells carry on **processes** that keep organisms alive

Tissues

- **Definition:** A group of similar cells performing the same function.
- **4 types:**
 - 1. Muscle
 - 2. Nerve: brain, spinal cord, nerves
 - 3. Connective: blood, fat, cartilage, bones, tendons
 - 4. Epithelial: covers surfaces of body (outside/inside)

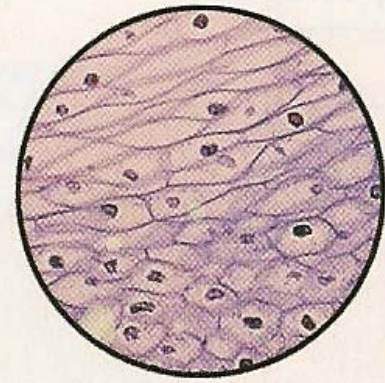
Connective Tissue

Connective tissue, such as the bone shown here, connects and supports parts of your body.



Epithelial Tissue

Epithelial tissue, such as the skin cells shown here, covers the surfaces of your body and lines your internal organs.

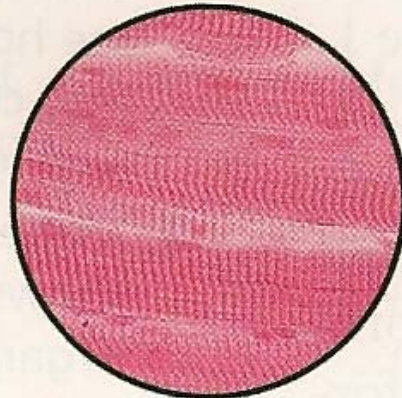


Tissue Types

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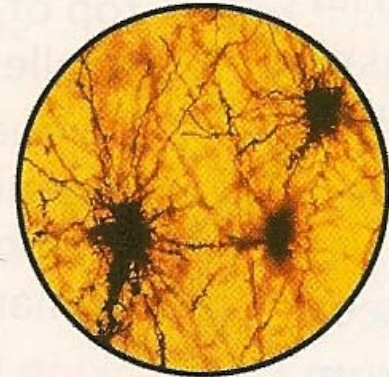
Muscle Tissue

Every movement you make depends on muscle tissue. The muscle tissue shown here allows your body to move.



Nervous Tissue

Nervous tissue, such as the brain cells shown here, enables you to see, hear, and think.

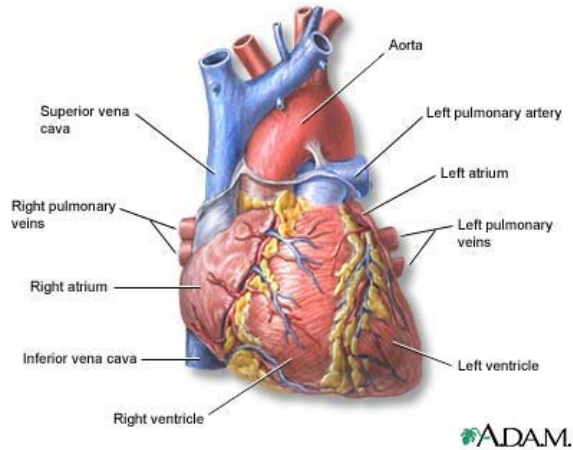


Organs

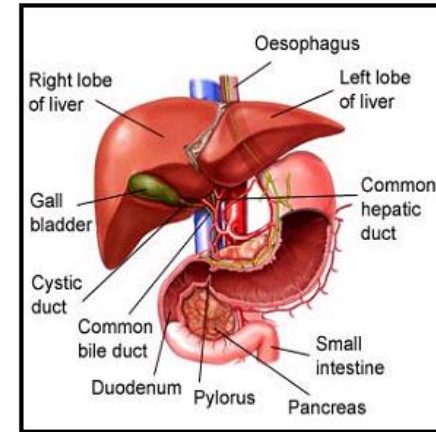
- **Definition:** Different types of tissue that perform a specific job
- **Examples:** Heart, liver, lungs, stomach, intestines
- The Heart contains all 4 kinds of tissue and each tissue type contributes to the overall job of pumping blood.

Examples of Organs

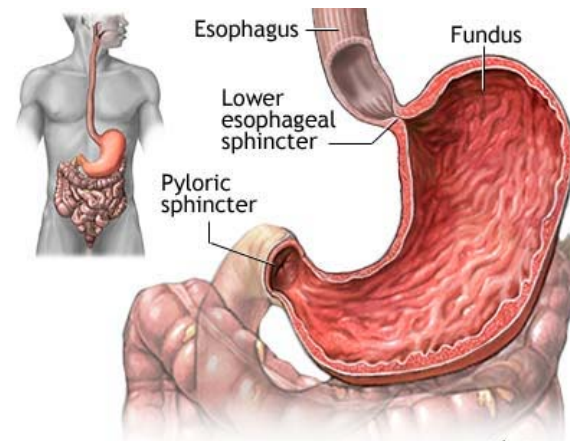
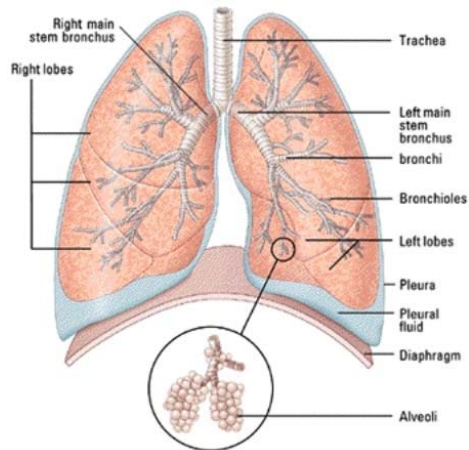
Heart



Liver



Lungs



ADAM.

Stomach

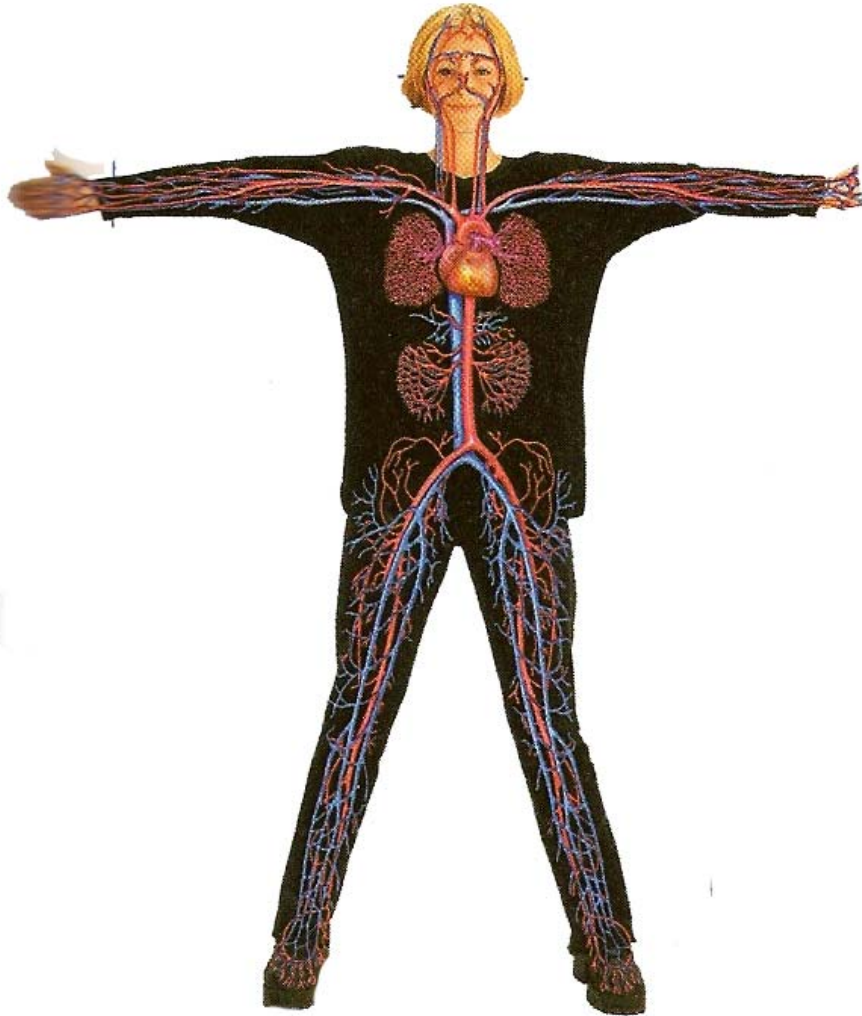
Organ Systems

- **Definition:** Group of organs that work together to perform a major function
- Systems depend on each other.

(Types of Organ Systems on Following
Slides

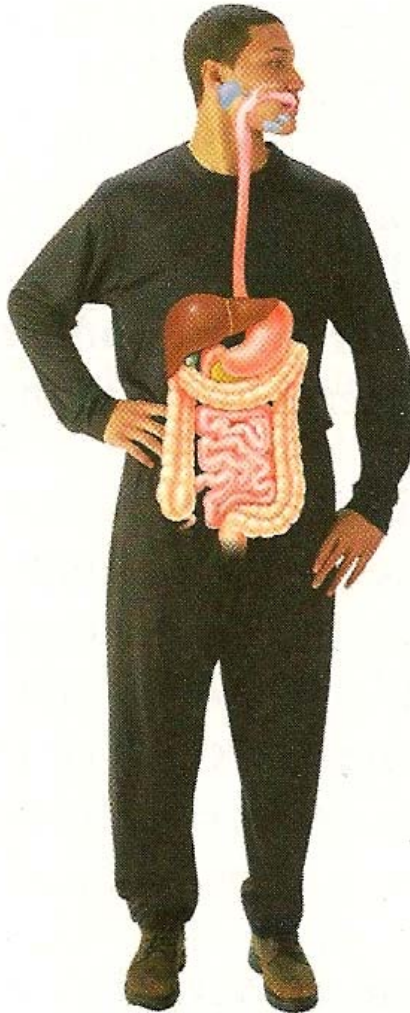
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Circulatory System



- Carries materials to cells and wastes away from cells.
- Helps fight disease

Digestive System



- Takes in food breaks it down, and absorbs digested materials

Digestive System

Skeletal System

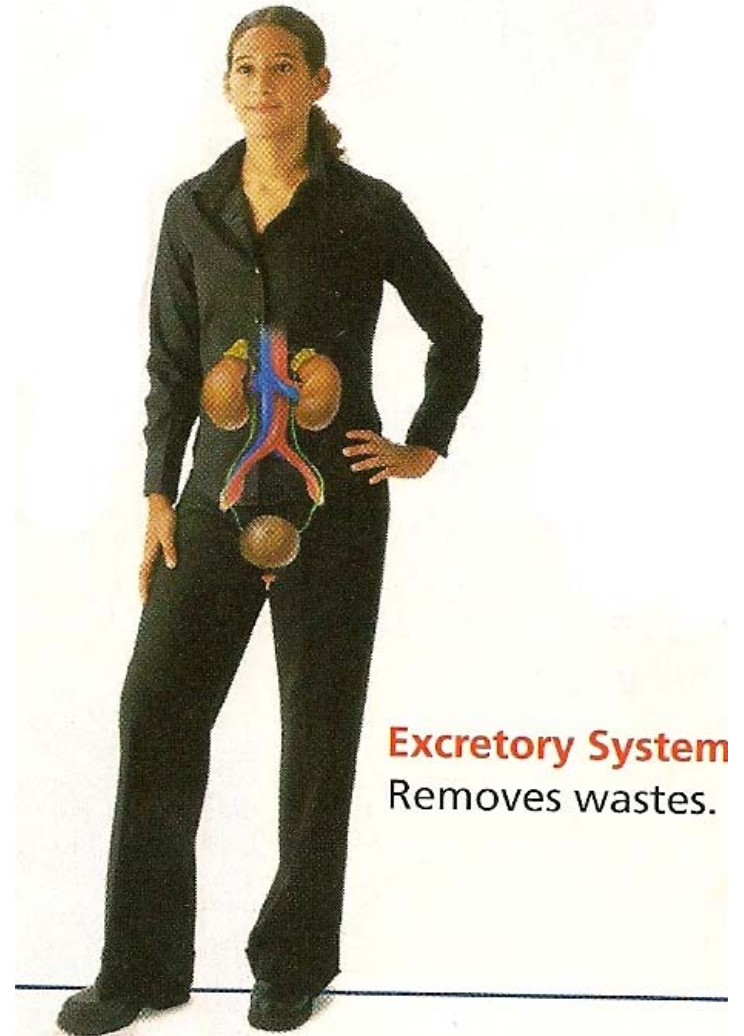
- Supports body, protects, works with muscle to allow movement.
- Stores some materials



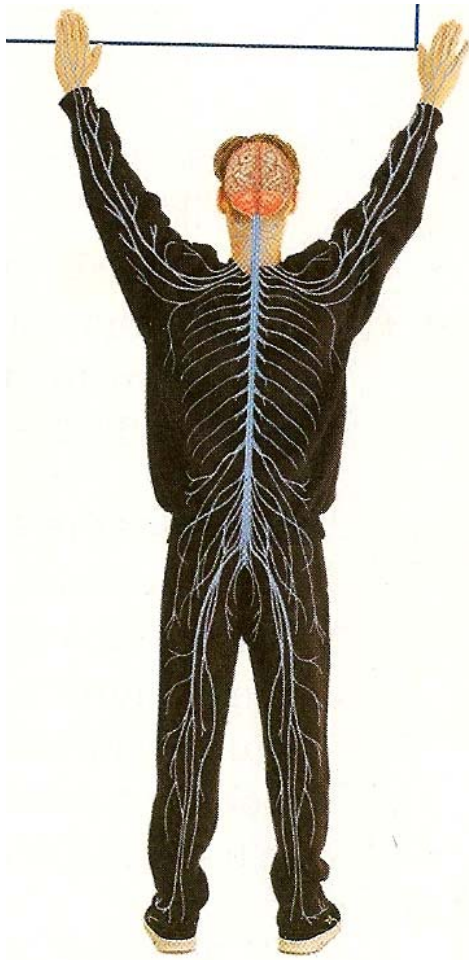
Skeletal System

Excretory

- Removes wastes



Nervous



Nervous System

- Detects, interprets information
- Controls most body functions

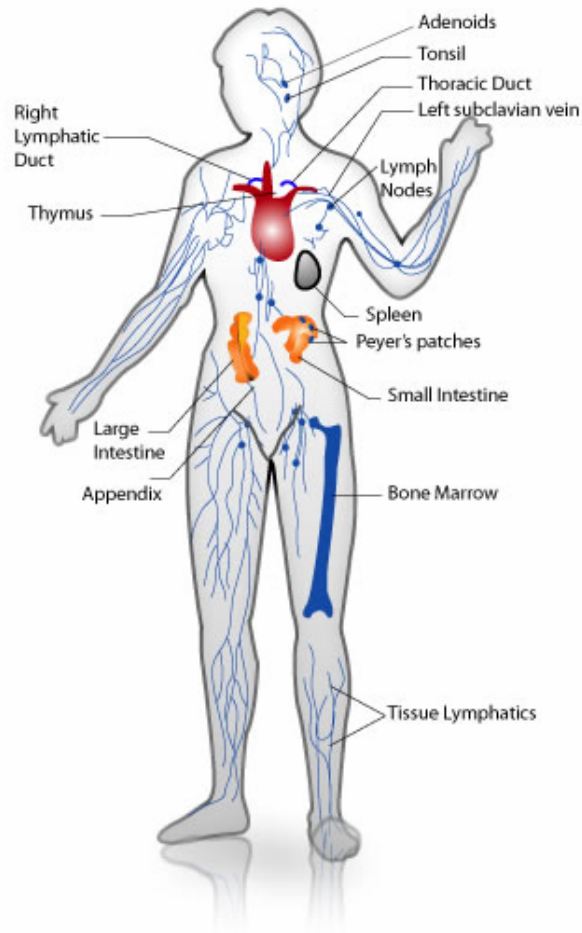
Muscular

- Enables body to move
- Moves food through digestive system
- Keeps heart beating



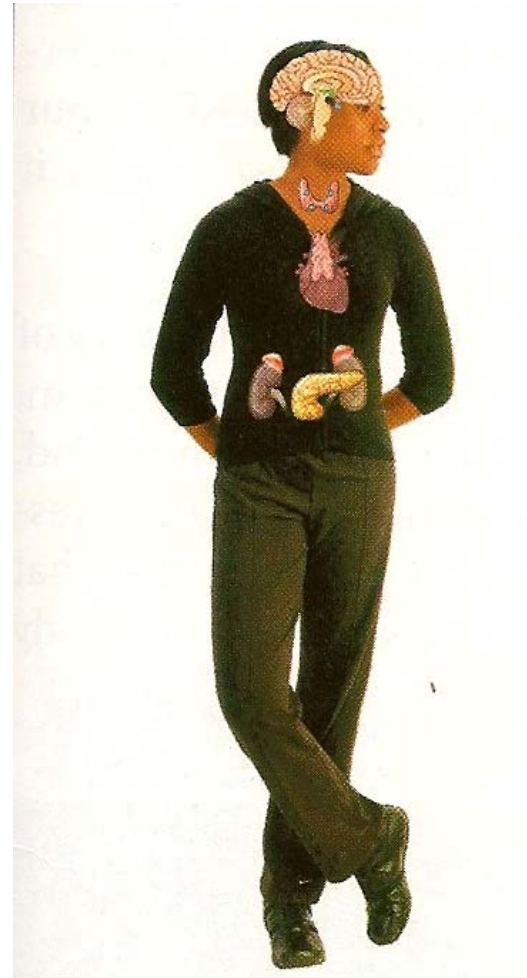
Immune

- Fights disease



Endocrine

- Controls body processes by means of chemicals

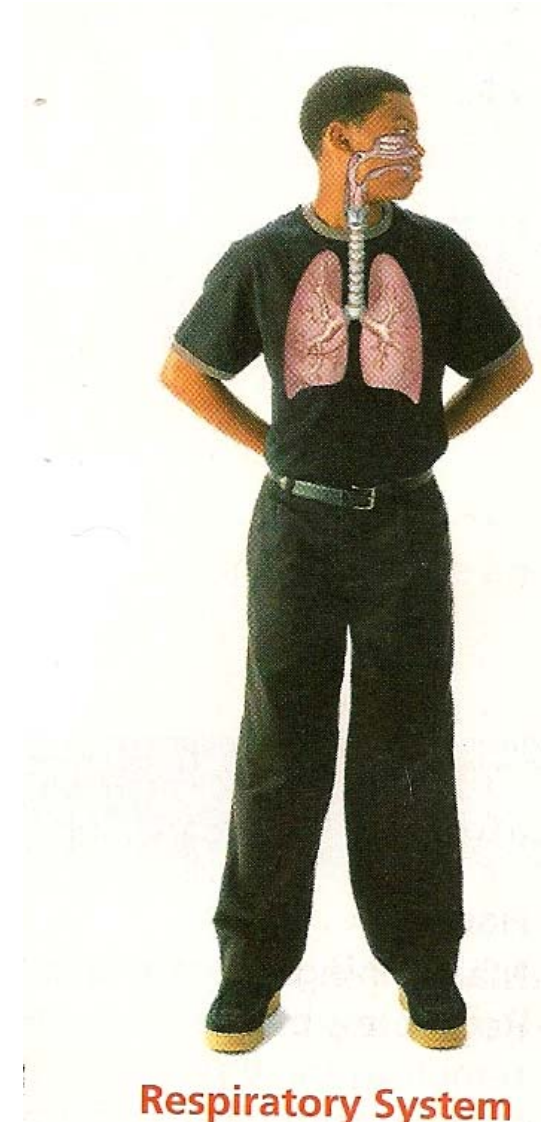


Reproductive

- Produces sex cells that can unite with other sex cells to create offspring

Respiratory System

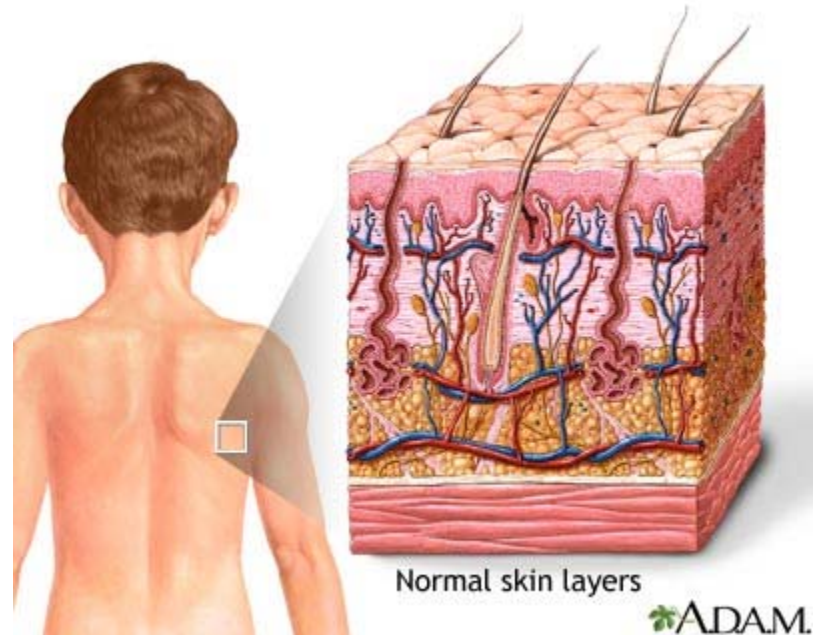
- Takes oxygen into body and eliminates carbon dioxide



Respiratory System

Integumentary System (skin)

- Protects body
- Keeps water in
- Helps to regulate body temperature



Assignment

- **Coloring Diagrams:**

- Cell & Tissue

- Tissue & Organ

- Staple and attach to the notes with finished.