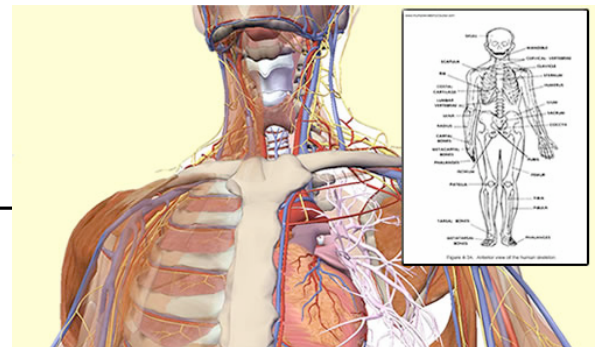


# Organization & Body Systems



## I. Anatomy & Physiology

- The study of \_\_\_\_\_
- \_\_\_\_\_ is concerned with the \_\_\_\_\_ of a part
- \_\_\_\_\_ is concerned with the \_\_\_\_\_ of a part

## II. Levels of Organization

- Body is organized into levels from most simple to most complex

### A. \_\_\_\_\_

- \_\_\_\_\_
- Compose all substances
- Chemical elements

### B. \_\_\_\_\_

- Atoms joined together form molecules (Ex: amino acid)

### C. \_\_\_\_\_

- Molecules joined together form macromolecules (Ex: protein)

### D. Organelles

- Tiny \_\_\_\_\_ that perform cellular functions
- Example: mitochondria - supplies cell with energy

### E. \_\_\_\_\_

- Macromolecules found in all cells
- \_\_\_\_\_ of all living things

### F. \_\_\_\_\_

- Composed of similar types of cells and performs a specific function
- Example: blood, muscle, fat

### G. Organs

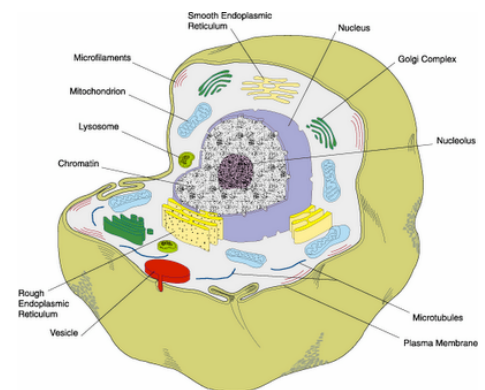
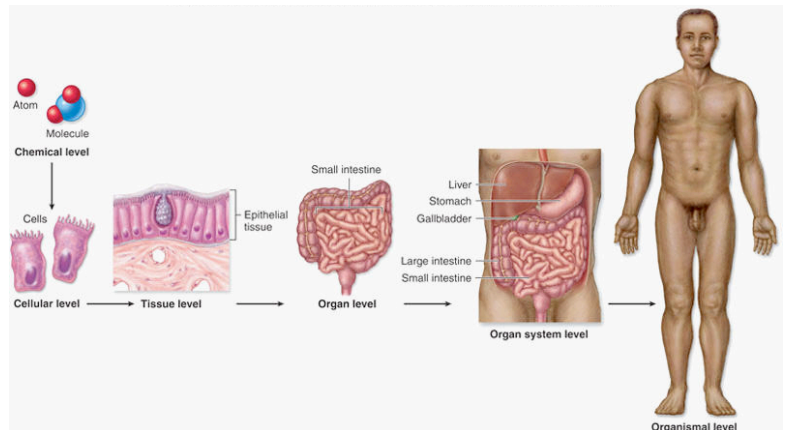
- \_\_\_\_\_ to perform a specific function
- Example: heart, stomach

### H. Organ System

- \_\_\_\_\_
- Example: digestive system: supply body with the nutrients needed for growth and repair

### I. Organism

- All the body systems make up an organism



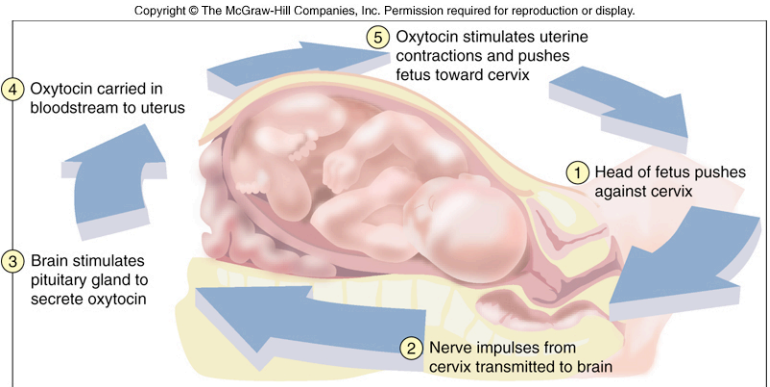
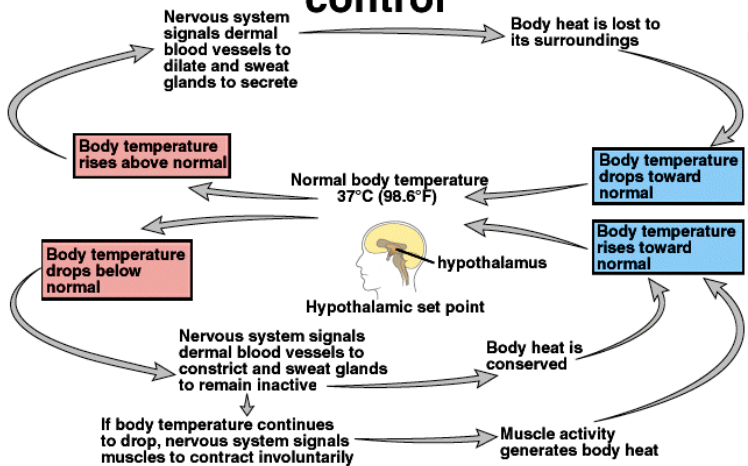
### III. Homeostasis

- Homeostasis is the relative \_\_\_\_\_ of the body's internal environment
- Even when external conditions change, the body's \_\_\_\_\_ stays within a \_\_\_\_\_
- \_\_\_\_\_ contribute toward maintaining homeostasis
- If the body's internal conditions changes greatly, illness results
- 2 types of homeostasis mechanisms:
  - Negative feedback - keeps a variable close to a particular value, or set point
    - Example: Body temperature
  - Positive feedback - mechanism that brings about an ever greater change in the same direction
    - Example: Childbirth

#### Negative Feedback

#### Positive Feedback

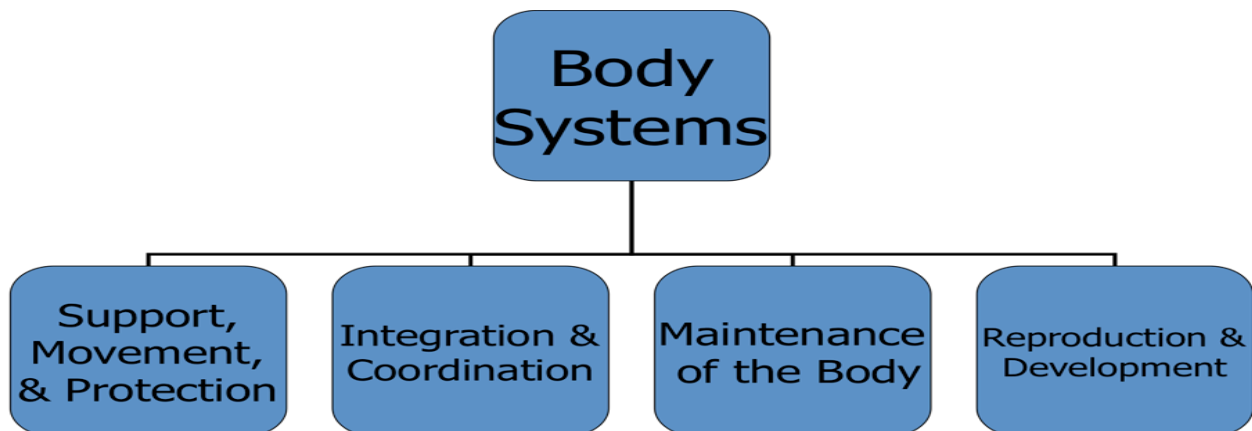
### Homeostasis and temperature control



### IV. Body Systems

#### A. Introduction

- Organs in the body work together in systems
- \_\_\_\_\_ organ systems in the body
- Organ systems can be \_\_\_\_\_ based on function



Unit 1: Introduction to Anatomy  
 A&P Chapter 1.1, 1.4, & 1.5

B. Support, Movement, & Protection

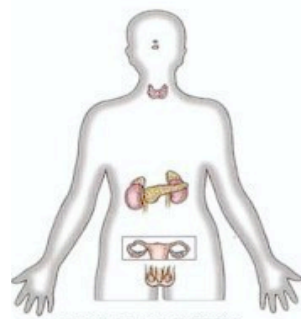


Integumentary system



Name	Integumentary System	Skeletal System	Muscular System
Organs	_____ and accessory organs (hair & nails)	_____, cartilage, & ligaments	Skeletal, cardiac, and smooth _____
Function	_____ tissue, _____ body temperature & contains sense organs	protects body parts, produce _____, stores calcium & phosphorus salts	_____, respond to stimuli, produce body heat,

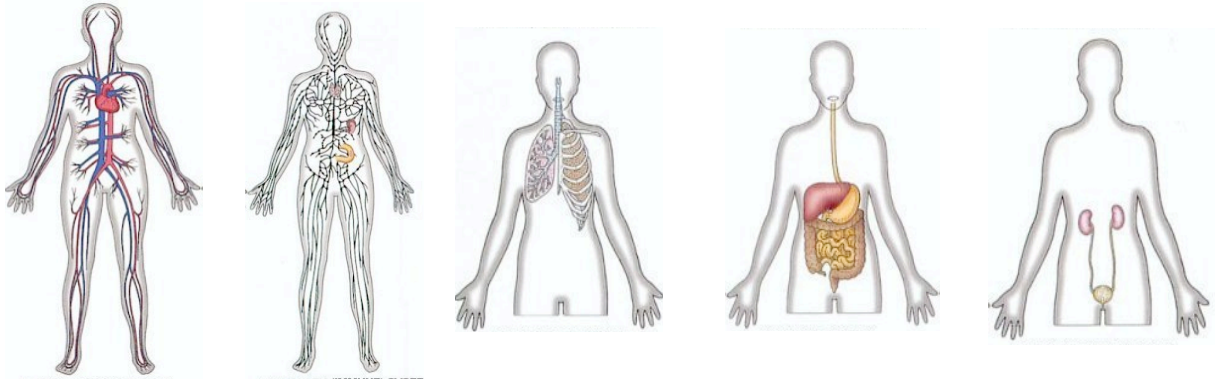
C. Integration and Coordination



Name	Nervous System	Endocrine System
Organs	_____, _____ & nerves	Hypothalamus, _____, thyroid, parathyroid, adrenals, pancreas, ovaries, testes
Function	_____ from the sense organs to the brain and then to the muscles and glands	_____ that are messengers between body part, maintain proper functioning of reproductive system

Unit 1: Introduction to Anatomy  
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D. Maintenance of Body



Name	_____	Immune System	Respiratory System	_____	Urinary System
Organs	Heart, blood vessels, blood	Lymph nodes, thymus, spleen	Nose, pharynx, larynx, trachea, lungs	Mouth, pharynx, esophagus, stomach, small & large intestine, rectum	_____ and urinary bladder
Function	_____ and oxygen to cells through blood, removes wastes	protects body from _____	bring _____ lungs and take carbon dioxide out of the lungs	receive food and digest into _____	gets rid of nitrogenous wastes, helps regulate fluid level and chemical content of the blood

E. Reproduction & Development

Name	Reproductive System	
Organs	Male: testes, epididymis, vas deferens, urethra, penis	Female: ovaries, fallopian tubes, uterus, vagina
Function	produce _____	produce sex cells, nourish and _____

