## BODY SYSTEMS NOTES 2019



### Directions

- \* On a sheet of notebook paper you will need to write down all the BLACK words, you will NOT need to copy any of the pictures (images).
- **\*** REMEMBER to copy the title of each page!



### Homeostasis



Things your body does to keep itself stable, <u>healthy</u>, protected and <u>balanced</u> without you having to think about it. It's controlled by your <u>nervous</u> system.

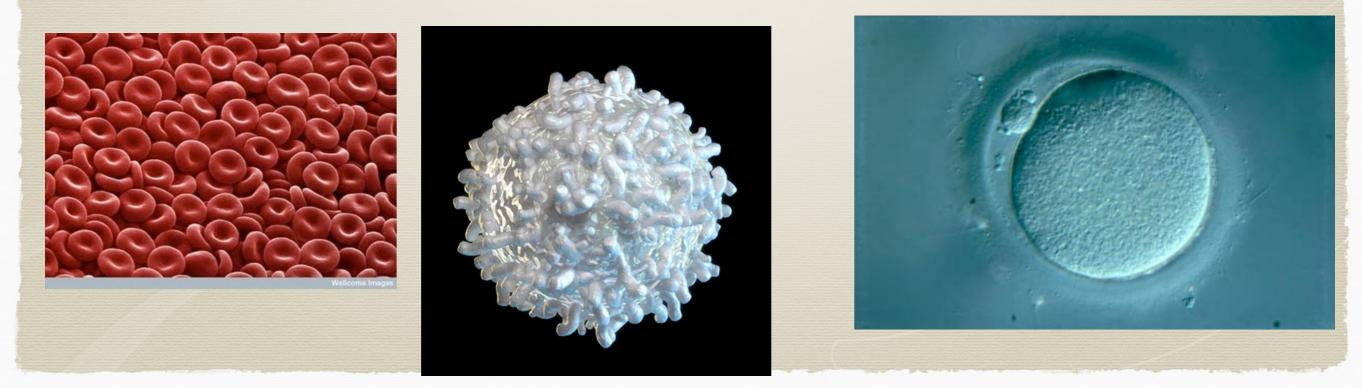
•Regulates your body temperature, <u>heart rate</u>, and breathing rate

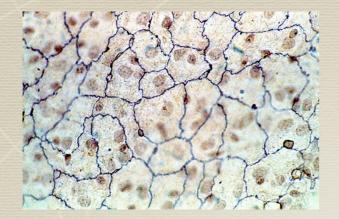


Cells

\* The <u>smallest</u> unit of an organism that can perform <u>life</u> functions

Ex: Red and white <u>blood</u> cells, skin cells, sperm cells, <u>egg</u> cells,

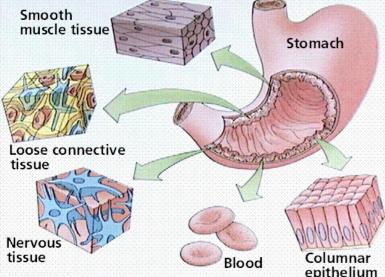




## Tissues

\* Groups of similar <u>cells</u> that perform the same function.

#### 4 types: muscle, <u>connective</u>, nerve, <u>epithelial</u>

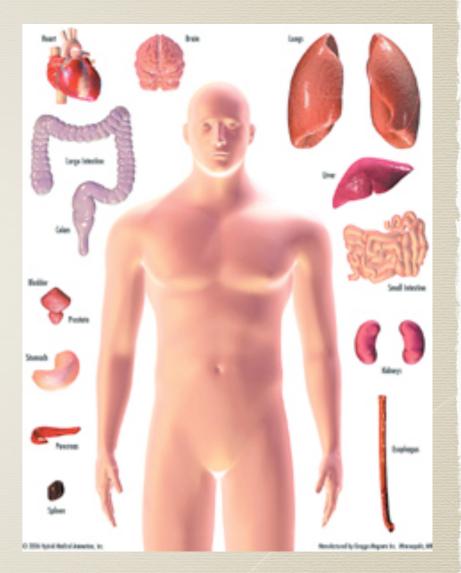


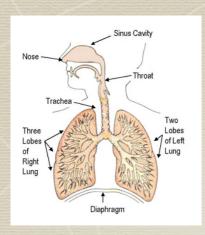


Organs

\* A structure made of different kinds of <u>tissues</u> that perform the same function

Ex: liver, kidney, <u>heart</u>, intestines, <u>skin</u>, lung, brain



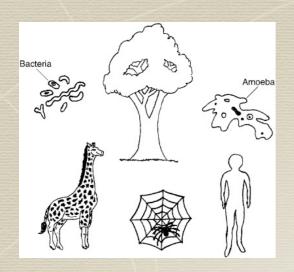


Organ System

A group of <u>organs</u> that work together to perform a specific job. Example: The <u>digestive</u> System contains the esophagus, stomach, small and large intestines, liver, gall bladder

\*No organ system can act <u>alone</u>. Each system works with and affects all the other <u>systems</u> in the body







A complete
<u>living</u> thing that
has the ability to
function
independently.

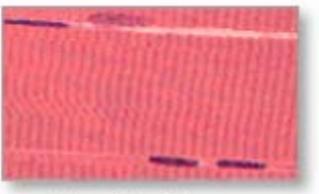


# 4 Kinds of Tissues in the Body

#### Four types of tissue



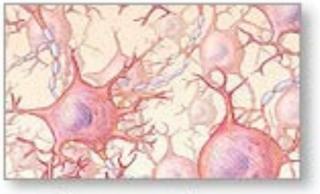
Connective tissue



Muscle tissue



Epithelial tissue

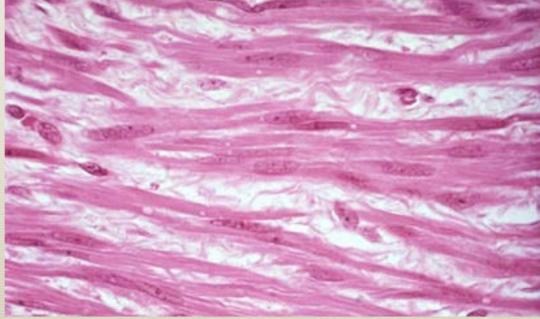


Nervous tissue



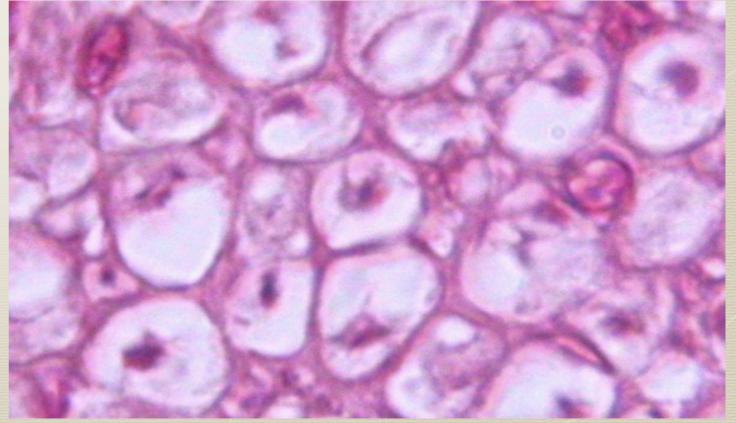
## Muscle Tissue

- \* The only tissue that has the ability to <u>contract</u>, or shorten
- \* Helps to move parts of your body
- \* Found in your muscles, <u>heart</u>, inside your intestines, <u>tongue</u>



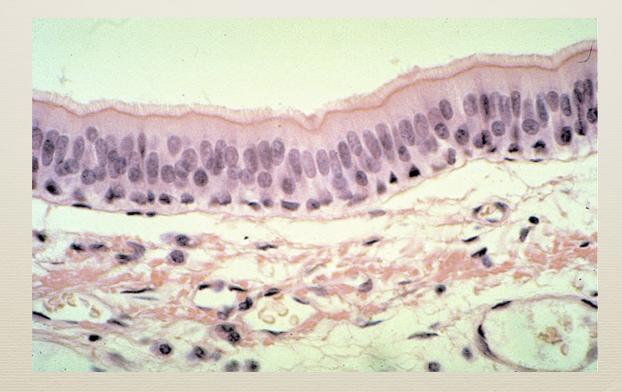
### Nerve Tissue

- \* Carries messages and signals back and forth between your <u>brain</u>, spinal cord, and in <u>nerves</u> throughout your body
- \* Found in your brain, <u>spinal cord</u>, and in nerves throughout your body.



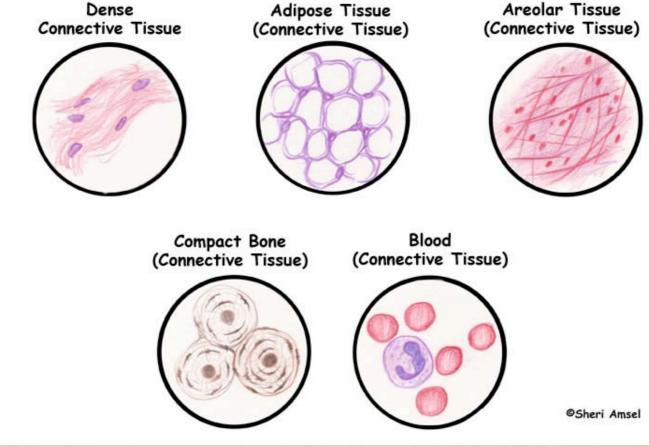
## Epithelial Tissue

- \* Covers the surfaces of your <u>body</u> inside and out
- \* Found in your <u>skin</u> covering your body and in the skin surrounding all of your <u>organs</u>



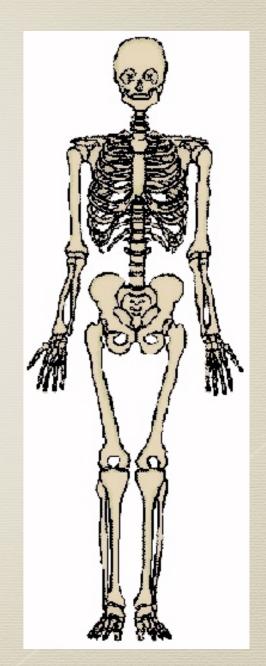
## Connective Tissue

\* Tissue that supports your <u>body</u> and connects parts
\* Found in blood, <u>bone</u>, fat, cartilage, ligaments and <u>tendons</u>

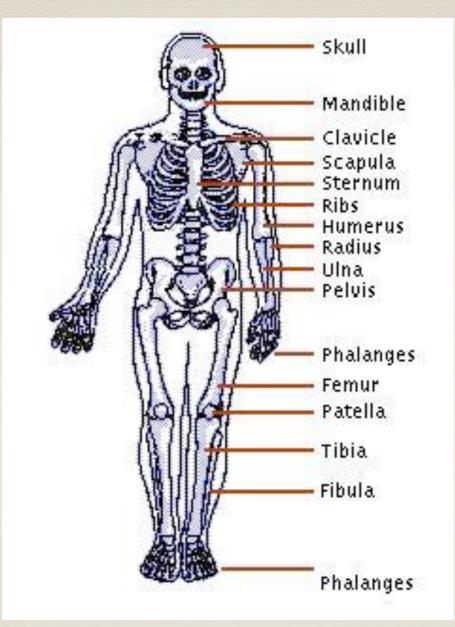


## Skeletal System

- \* Protects your internal organs
- \* Gives your body a shape and framework
- \* Works with the <u>muscles</u> to help your body move
- \* Makes blood cells
- \* Stores materials for later use (calcium and <u>fat</u>)



### Organs of the Skeletal System



#### Main Parts: bones

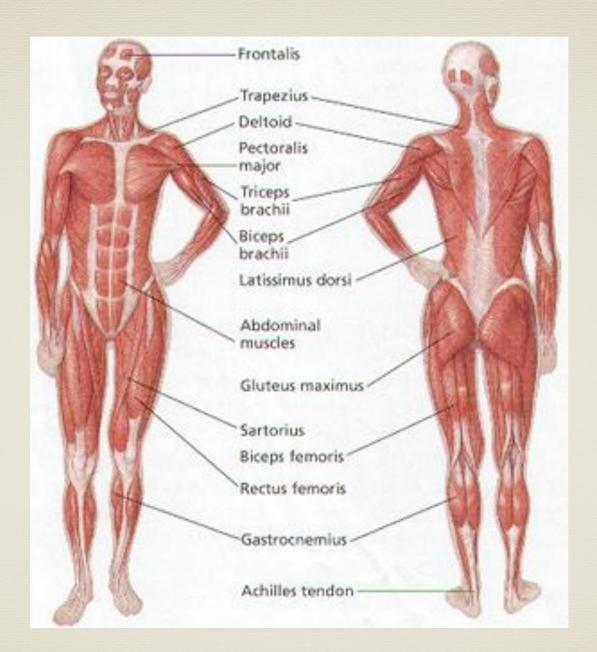
## Muscular System

#### \* <u>Moves</u> the body

- \* Moves food through the <u>digestive</u> system
- \* Heart pumps <u>blood</u> throughout the body
- \* Muscles keep your <u>posture</u> by holding up your <u>bones</u>



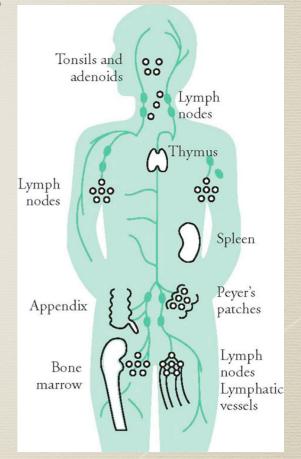
#### Organs of the Muscular System



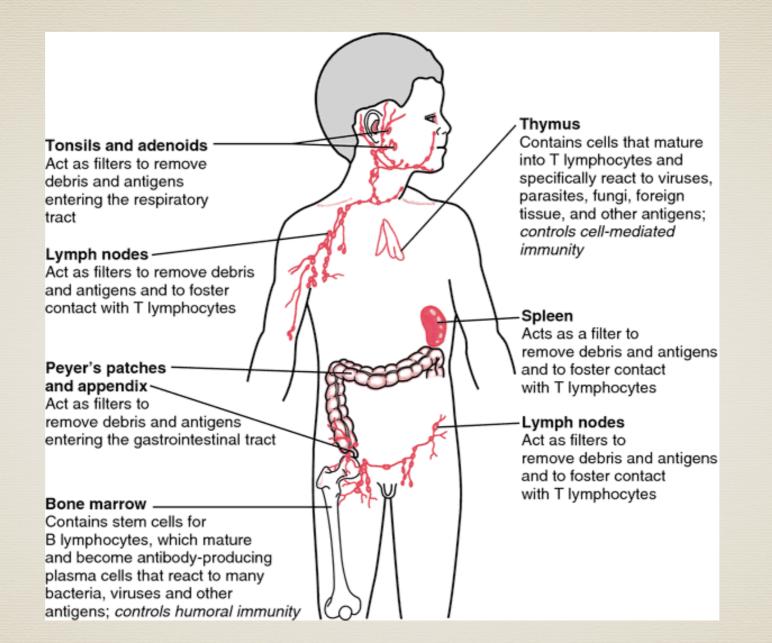
#### Main Parts: muscles, <u>heart</u>, diaphragm, <u>tongue</u>

## Immune System

- \* Helps your body fight <u>infection</u>, disease, and <u>illness</u>
- \* <u>Skin</u> protects harmful substances from entering your <u>body</u>
- \* White blood cells destroy <u>harmful</u> substances
- \* <u>Antibodies</u> fight infection and illnesses



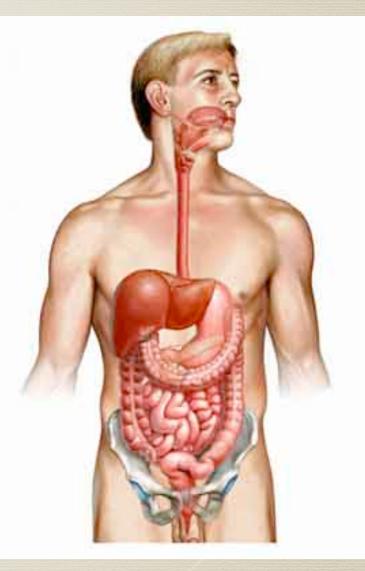
#### Organs of the Immune System



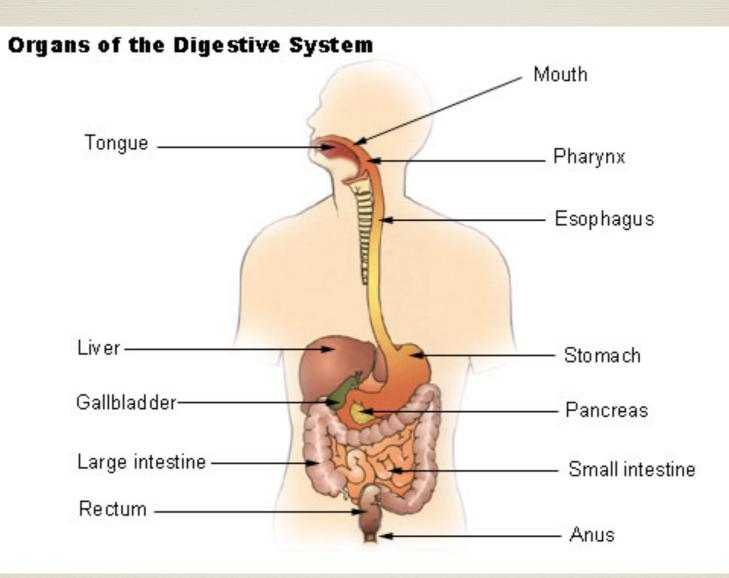
Main Parts: your skin, <u>white blood</u> cells, lymph nodes, antibodies, <u>mucus</u>

# Digestive System

- \* Takes food into the body and <u>breaks</u> it down
- \* Absorbs digested material into the <u>bloodstream</u>



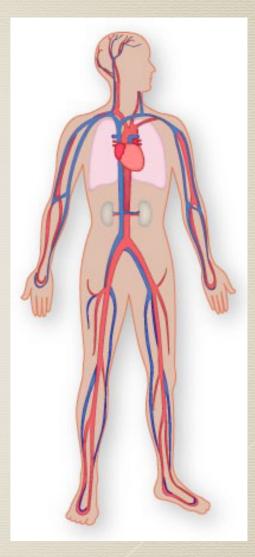
#### Organs of the Digestive System



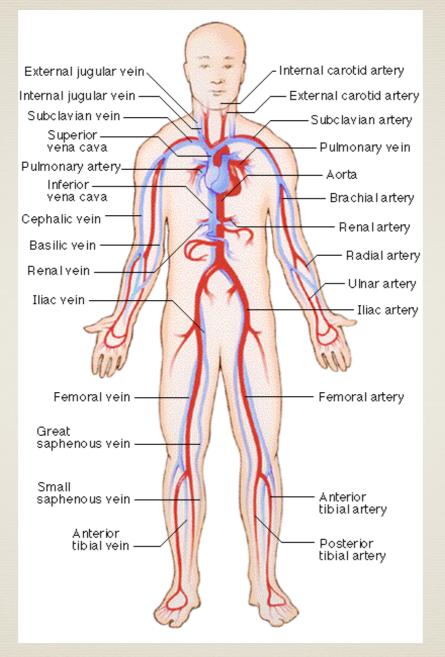
Main Parts: esophagus, stomach, <u>liver</u>, small and <u>large</u> intestine

## Circulatory System

- \* Blood circulates through the <u>heart</u>, lungs, and <u>body</u>
- \* Blood is the delivery system that brings food and oxygen to the <u>cells</u> and pick up waste and carbon dioxide



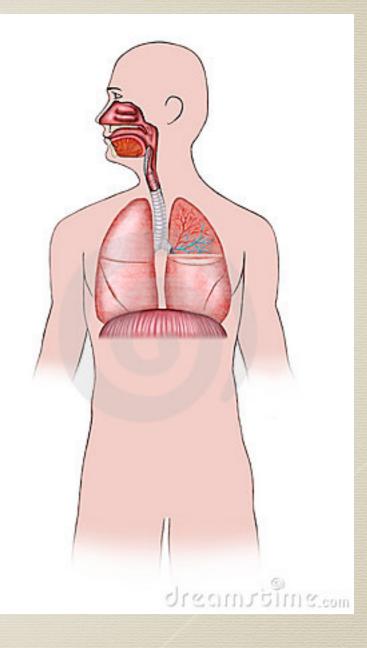
#### Organs of the Circulatory System



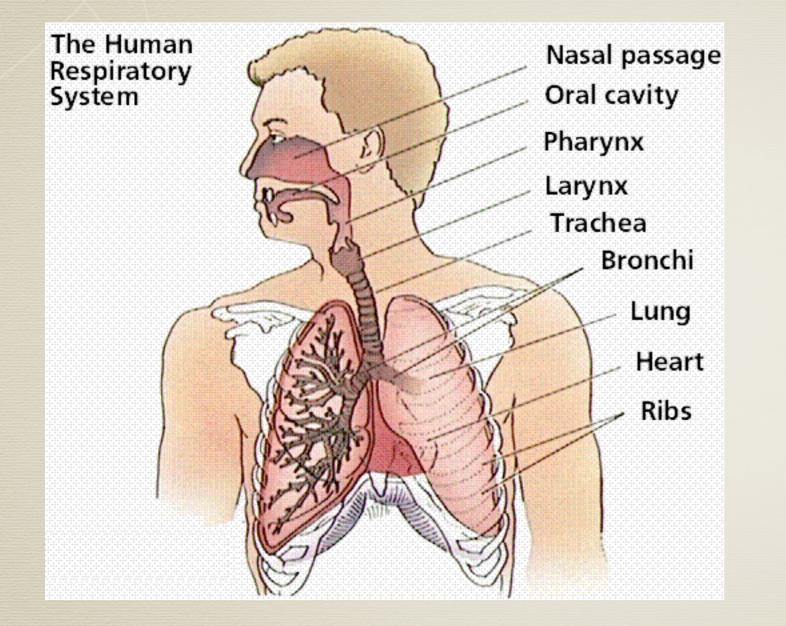
Main Parts: heart, <u>veins</u>, arteries, capillaries, <u>blood</u>

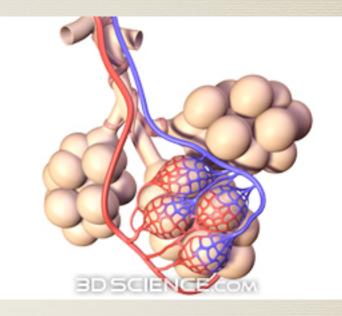
## Respiratory System

- \* System that allows you to <u>breathe</u>, or respirate
- \* Takes needed <u>oxygen</u> into the body and eliminates unneeded <u>carbon</u> <u>dioxide</u>



### Organs of the Respiratory System

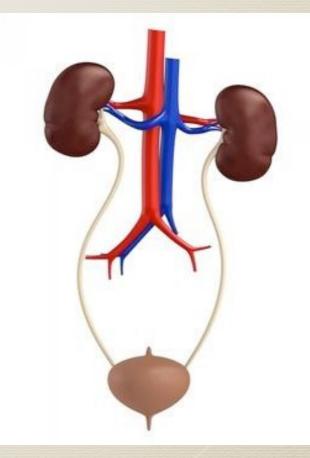




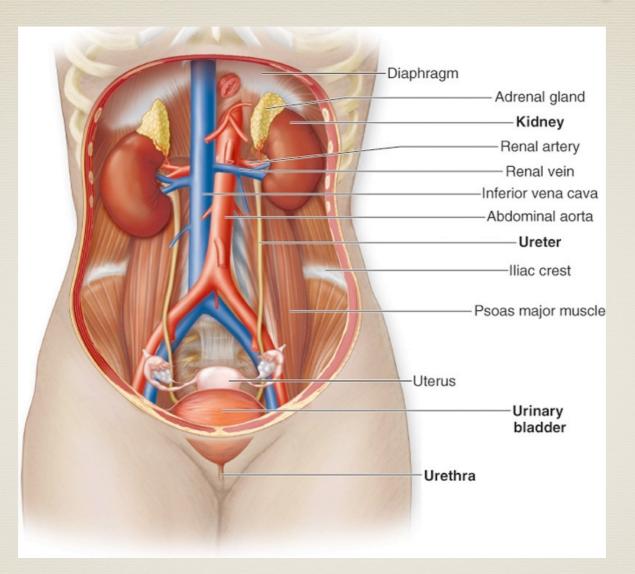
#### Main Parts: trachea, <u>lungs</u>, diaphragm

## **Excretory System**

\* Removes solid and liquid <u>waste</u> from the body (waste *EX*its the body)



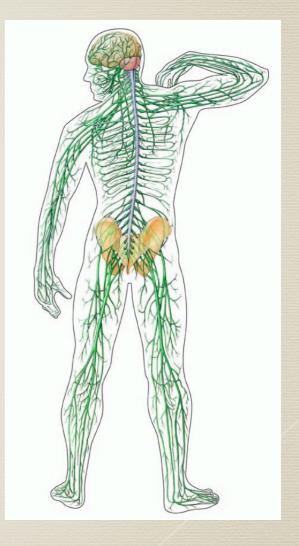
### Organs of the Excretory System



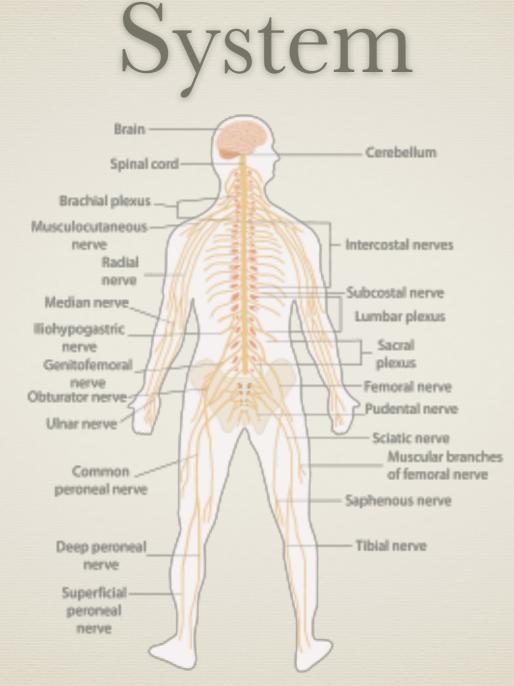
#### Main Parts: <u>kidneys</u>, large intestine, liver, <u>bladder</u>, urethra

## Nervous System

- \* Takes in information about your surroundings through your <u>5 senses</u> and directs the way your body <u>responds</u> or reacts.
- \* Controls and regulates <u>ALL</u> systems in your body
- \* Controls and maintains homeostasis



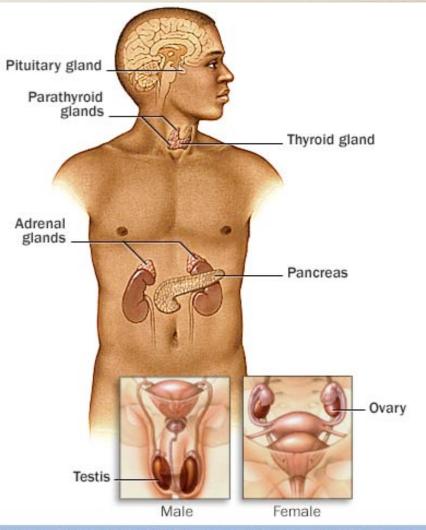
## Organs of the Nervous



Main Parts: <u>brain</u>, spinal cord, and <u>nerve</u> cells throughout your body

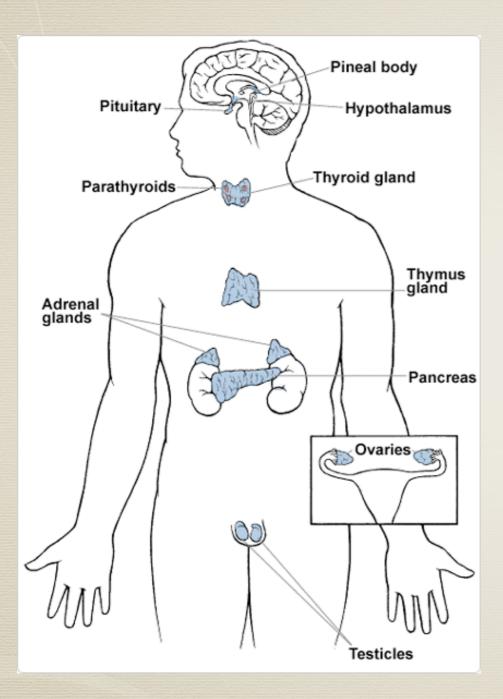
## Endocrine System

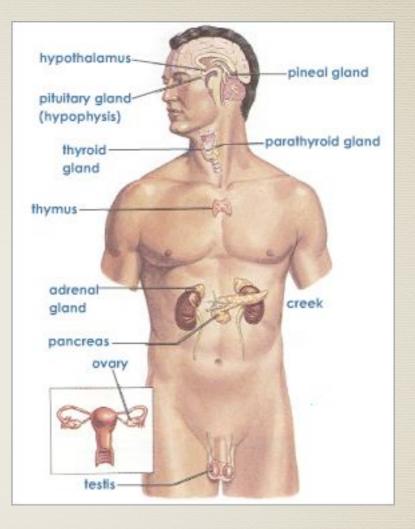
- \* Controls many body processes using chemicals called <u>hormones</u>
- Hormones control your <u>growth</u>, development, metabolism (breaking down food for energy), and <u>reproduction</u>



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### Organs of the Endocrine System





Main Parts: glands, pancreas, ovaries, testes

## Reproductive System

- \* Produces <u>sperm</u> (male) and <u>egg</u> (female) cells used to create <u>offspring -</u>
- \* Controls male and female <u>characteristics</u>

\*

