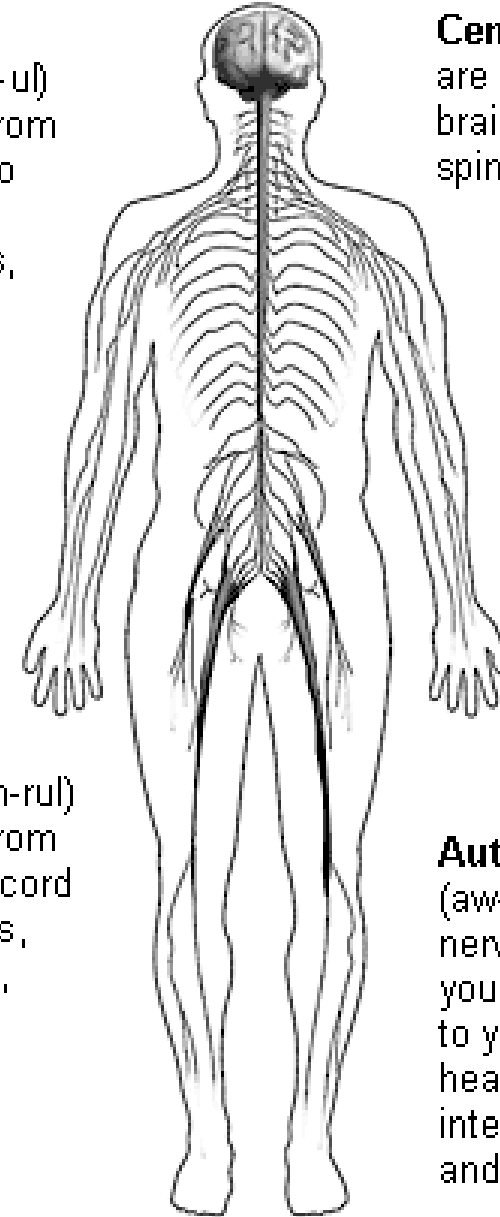


Human Body Systems

Nervous System

- Functions
 - Controls all body's functions
 - Senses and recognizes information from inside and outside of the body

Cranial
(KRAY-nee-ul)
nerves go from
your brain to
your eyes,
mouth, ears,
and other
parts of
your head.



Central nerves
are in your
brain and
spinal cord.

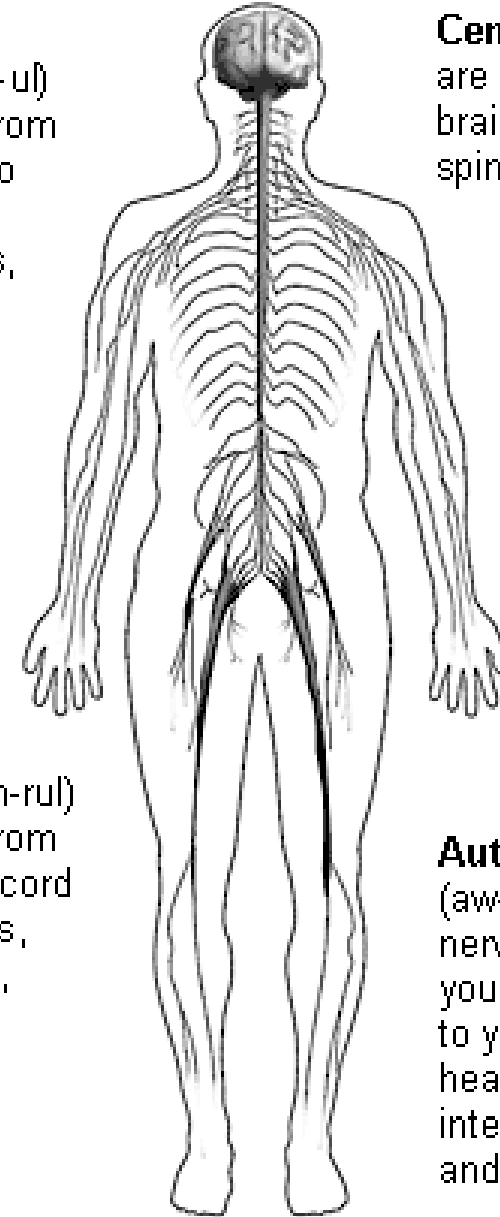
Peripheral
(puh-RIF-uh-rul)
nerves go from
your spinal cord
to your arms,
hands, legs,
and feet.

Autonomic
(aw-toh-NOM-ik)
nerves go from
your spinal cord
to your lungs,
heart, stomach,
intestines, bladder,
and sex organs.

Nervous System

- Main Parts
 - Brain
 - Nerves
 - Spinal cord

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(KRAY-nee-u)
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to your lungs,
heart, stomach,
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and sex organs.

What it helps you do...

- Move
- Sense things from the environment
- And much more!

Interactions with other systems:

- All systems – helps keep the systems functioning

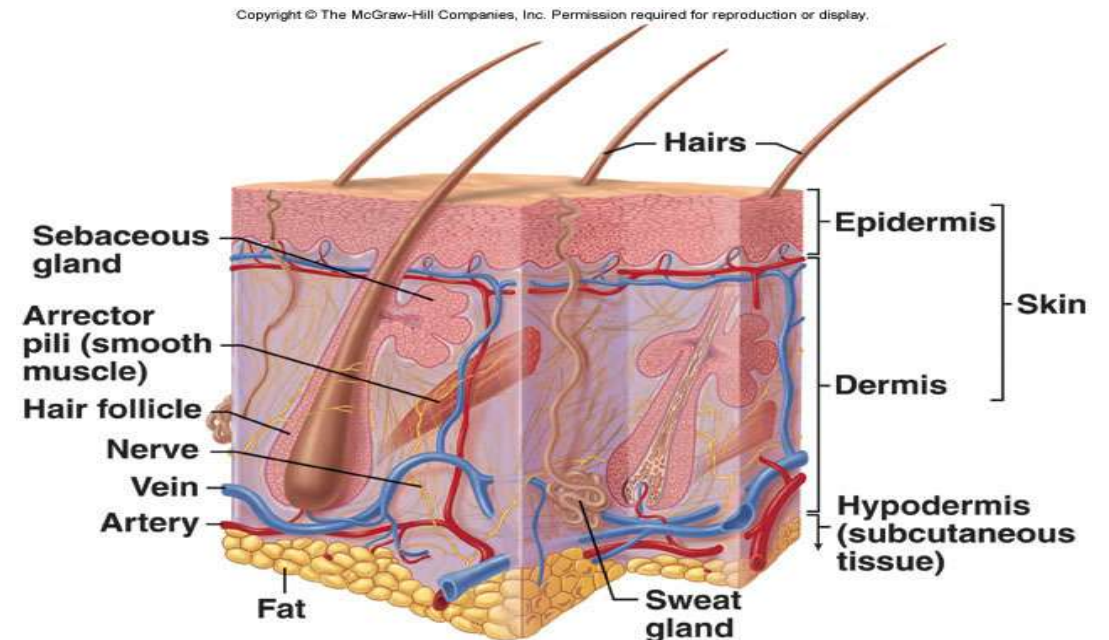
Integumentary (Skin) System

- Function

- 1st line of defense against disease
- Helps maintain body temperature
- Keeps fluids inside

- Main Parts

- Skin
- Sweat glands
- Hair
- nails



What it helps you do...

- Helps you maintain fluids (don't dehydrate)
- Helps you know your environment by feeling things around you
- Protect organs
- Remove waste

Interactions with other systems...

- Works with the excretory and the immune system to help remove cellular waste and protect us from disease.

Skeletal System

- Support and protect body parts.
- Helps maintain homeostasis
- Makes red blood cells (red bone marrow)

Skeletal System: Parts & Function

Main parts:

- Bones
- Cartilage
- Connective Tissue

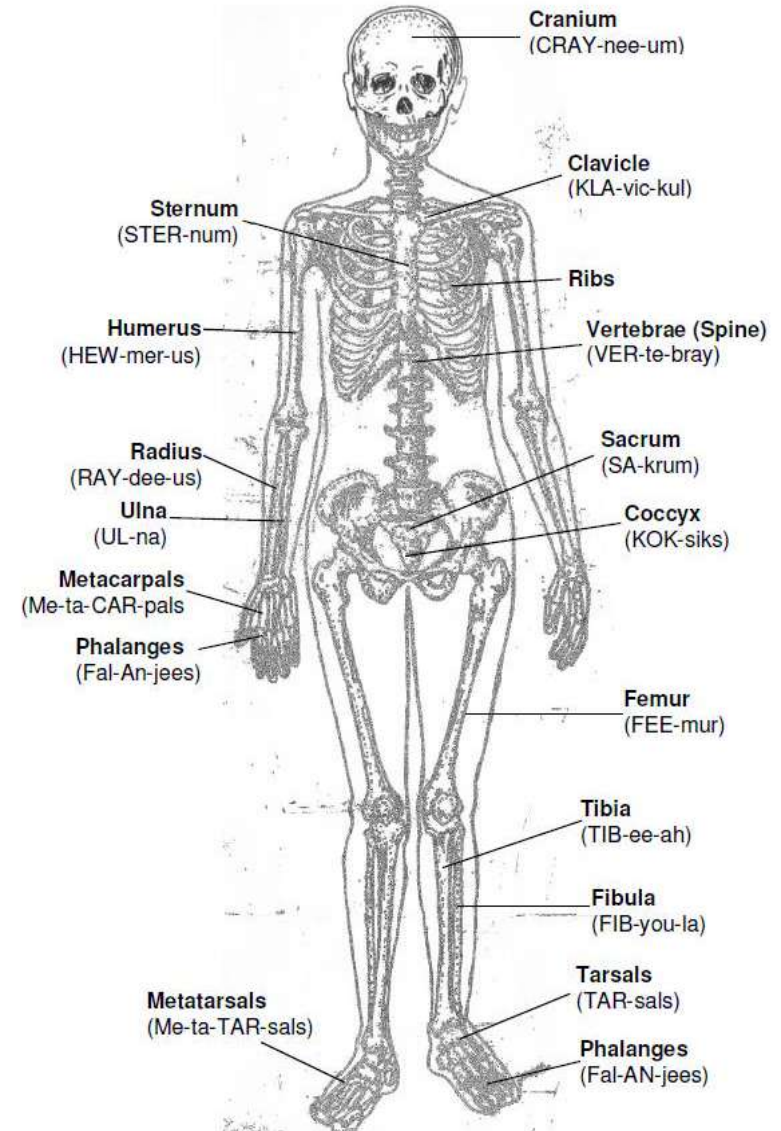
Function:

- Helps support your body parts
- Helps support your body during movement
- Helps protect your major organs:
 - Skull protects the brain
 - Sternum and ribs protects the heart and lungs
 - Vertebra protect the spinal cord



Skeletal System Interactions

- Works with the muscular system to help you move.



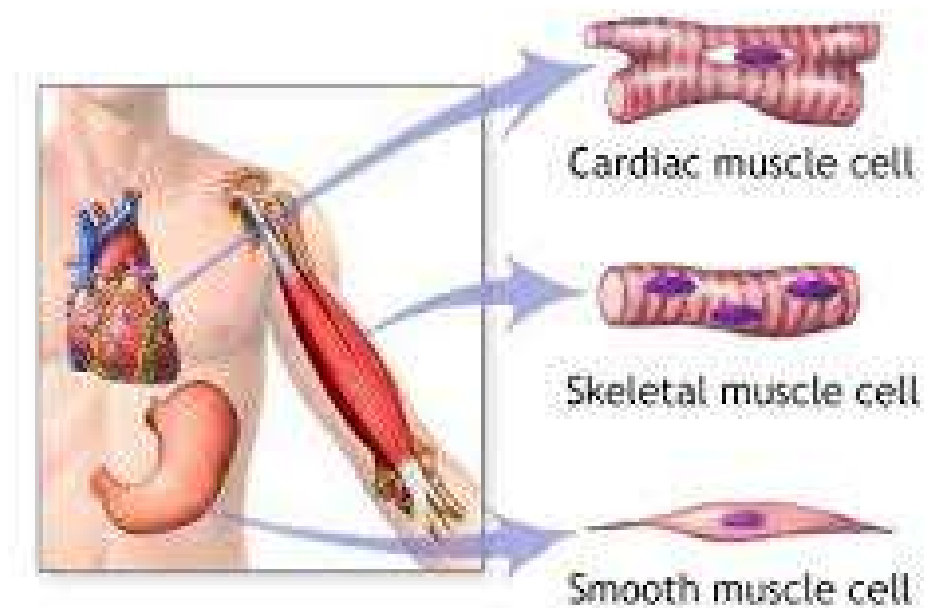
Muscular System

- Function
 - Helps you move.
 - Moves materials through the body
- Main parts
 - Muscles
 - Tendons
 - Ligaments
 - Muscles in organs



Three types of muscles found in the body:

- Cardiac – found in the _____ (_____ muscle)
- _____ - attaches to the bones (_____ muscle)
- Smooth – lines _____ and vessels. (_____ muscle)



Muscular Systems help you...

- Helps you move
- Helps you move materials through the body
- Maintain homeostasis
- Skeletal muscles work in pairs: one contracts and the other returns to its original length.

Interactions with other systems

- Works with the skeletal system to help you move by your muscles pulling on your bones.
- Works with the nervous system and controls the types of movements: voluntary (under your control – ex: talking) and involuntary (NOT under your control – ex: heartbeat)

Three types of muscles found in the body:

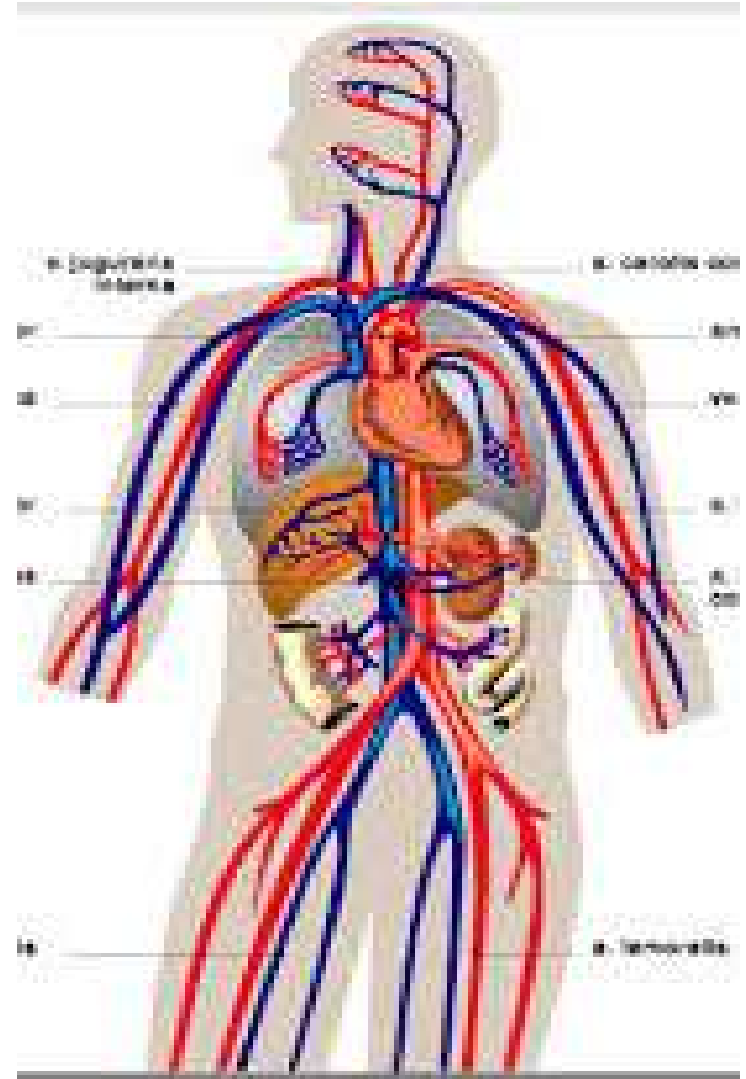
- Cardiac – found in the heart (_____ muscle)
- Skeletal- attaches to the bones (_____ muscle)
- Smooth – lines organs and vessels. (_____ muscle)

Circulatory (Cardiovascular) System

- Function
 - Carries blood and nutrients to the cells of the body
 - Carries waste away from the cells, such as carbon dioxide.
- Main Parts
 - Heart
 - Blood (made up of plasma, red blood cells, white blood cells & platelets)
 - Veins
 - Arteries

What it helps you do...

- Arteries help carry oxygenated blood away from the heart
- Veins carry un-oxygenated blood toward the heart
- Capillaries are tiny blood vessels that connect arteries and veins. Gas exchange takes place here.



Interactions with other systems:

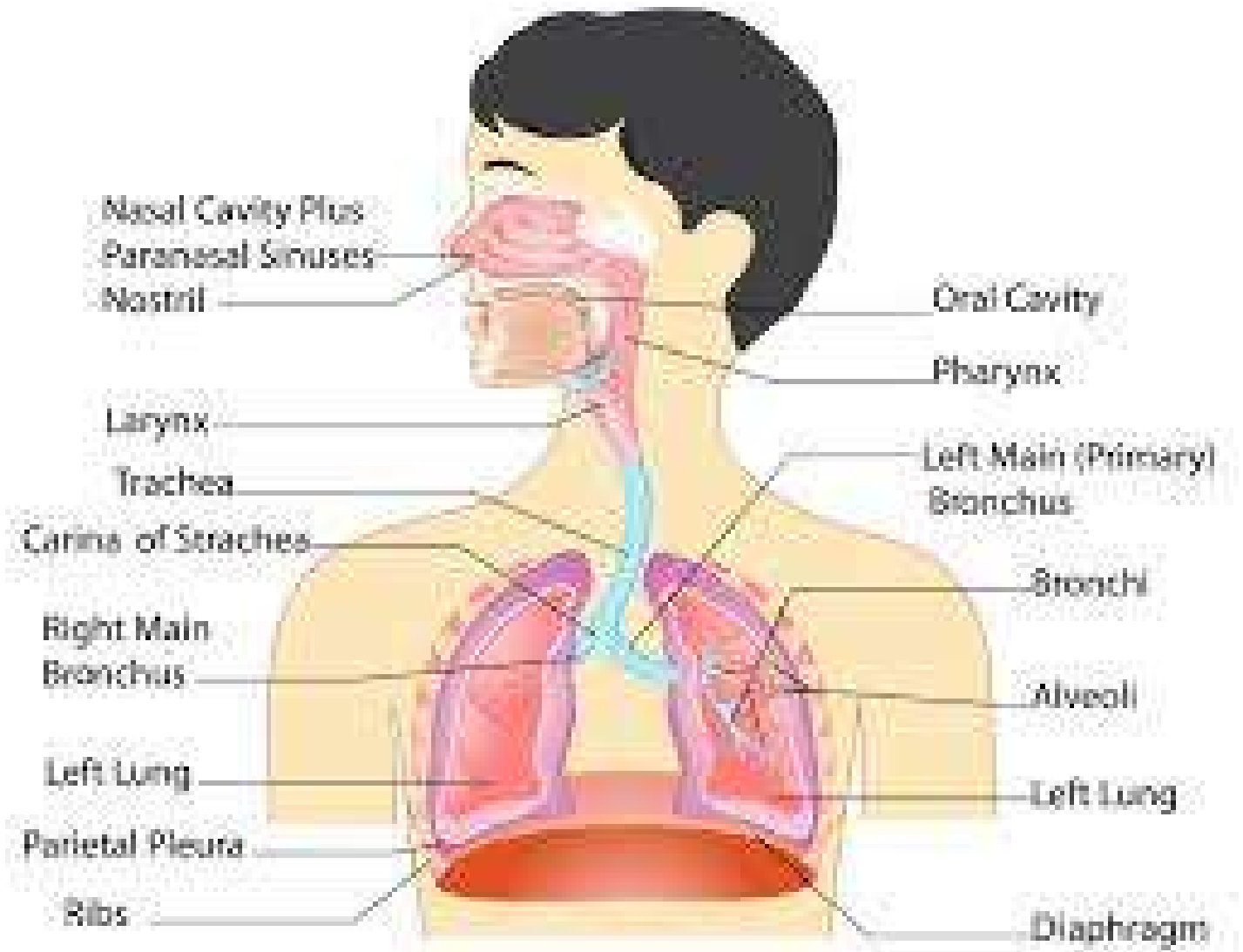
- Works with the respiratory system to help you transport oxygen and carbon dioxide.
- Works with the excretory to help remove waste from the body.
- Works with the digestive system to transport nutrients.
- Works with the muscular system to help circulate nutrients.

Respiratory System

- Function
 - Puts oxygen into the body & removes Carbon dioxide
- Main parts
 - Lungs
 - Nasal passages
 - Throat
 - Nose

What it helps you do...

- Breathe
- Sustain life



Interactions with other systems:

- Circulatory – transports vital materials to the cells

Digestive System

- **Function**

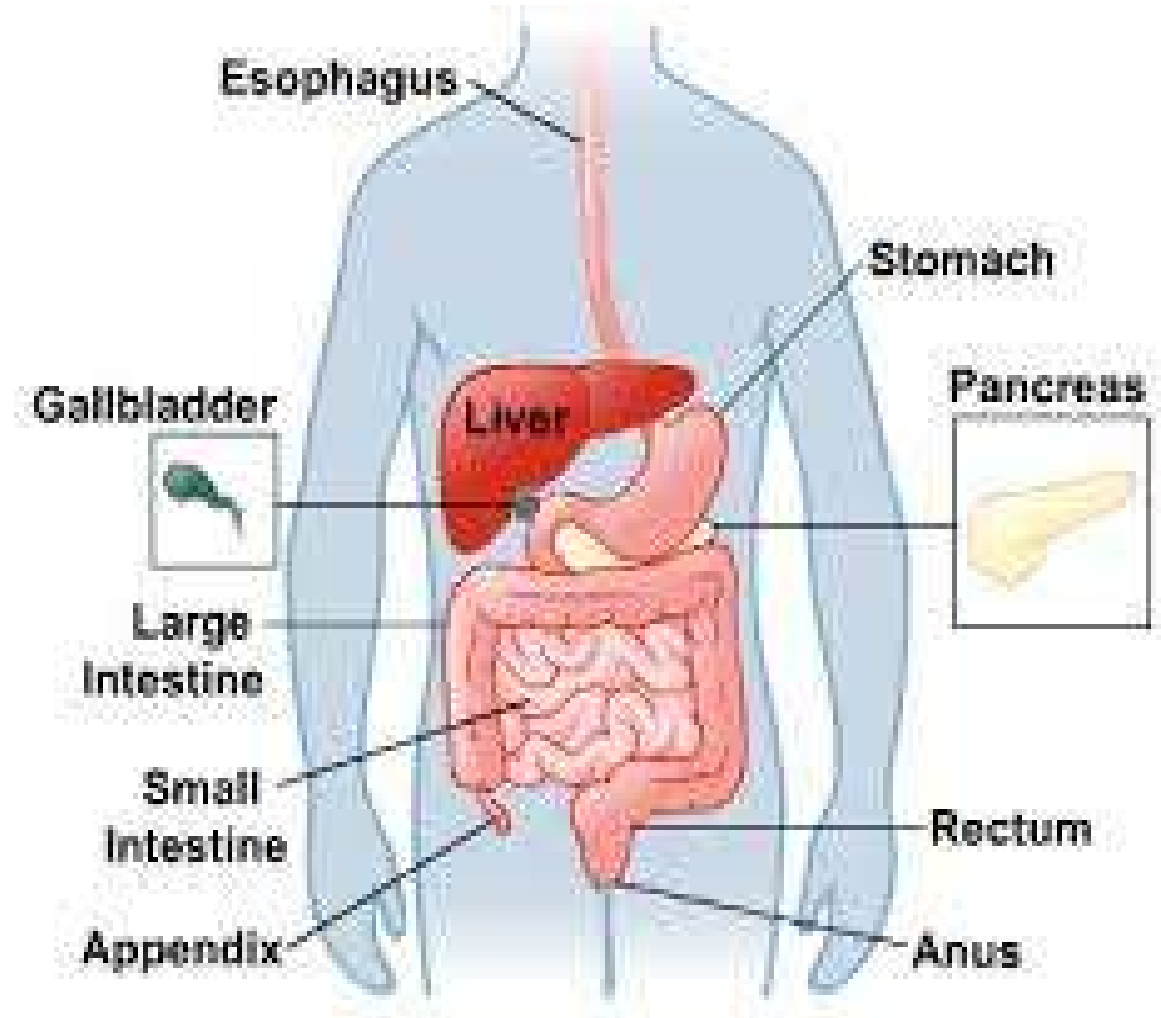
- Takes food & breaks it down into nutrients the body needs

Digestive System

- Main parts:
 - Mouth
 - Stomach
 - Liver
 - Pancreas
 - Small intestines
 - Large intestines
 - Rectum

What it helps you do...

- It provides nutrients to your body's cells

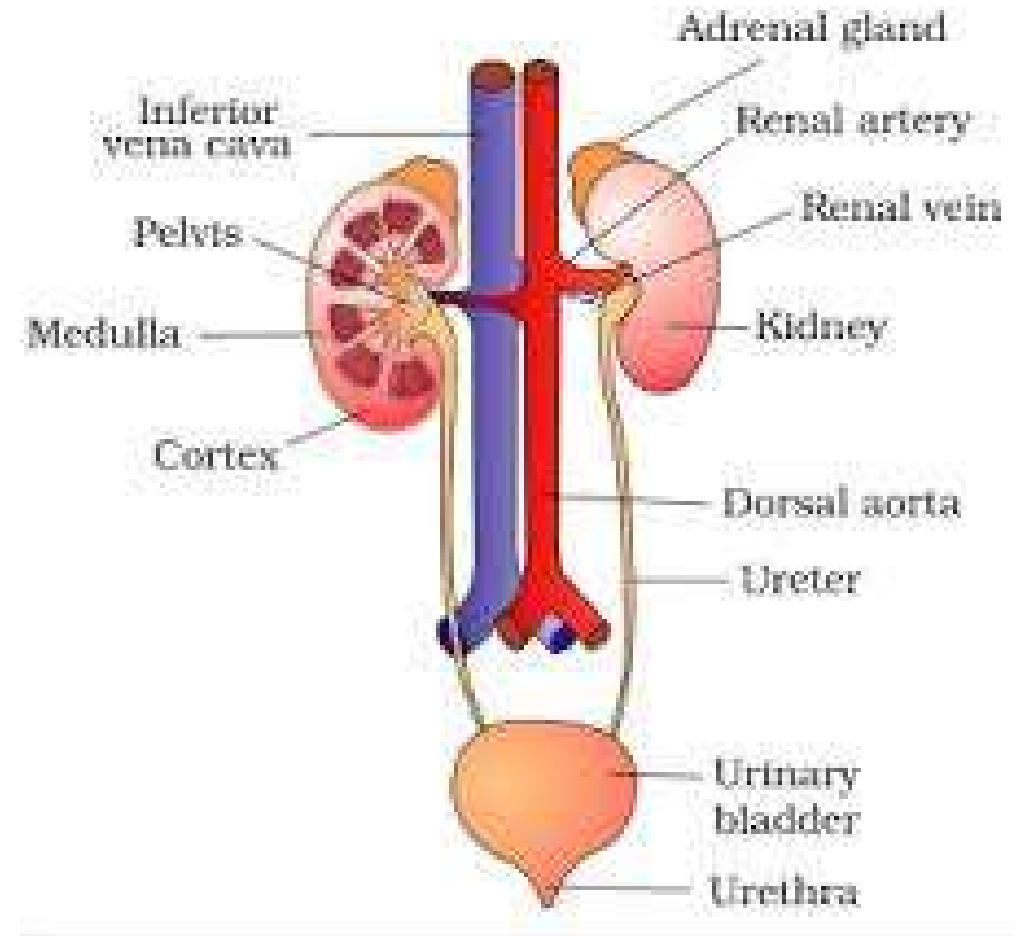


Interactions with other systems:

- Circulatory – helps transport nutrients to the body's cells

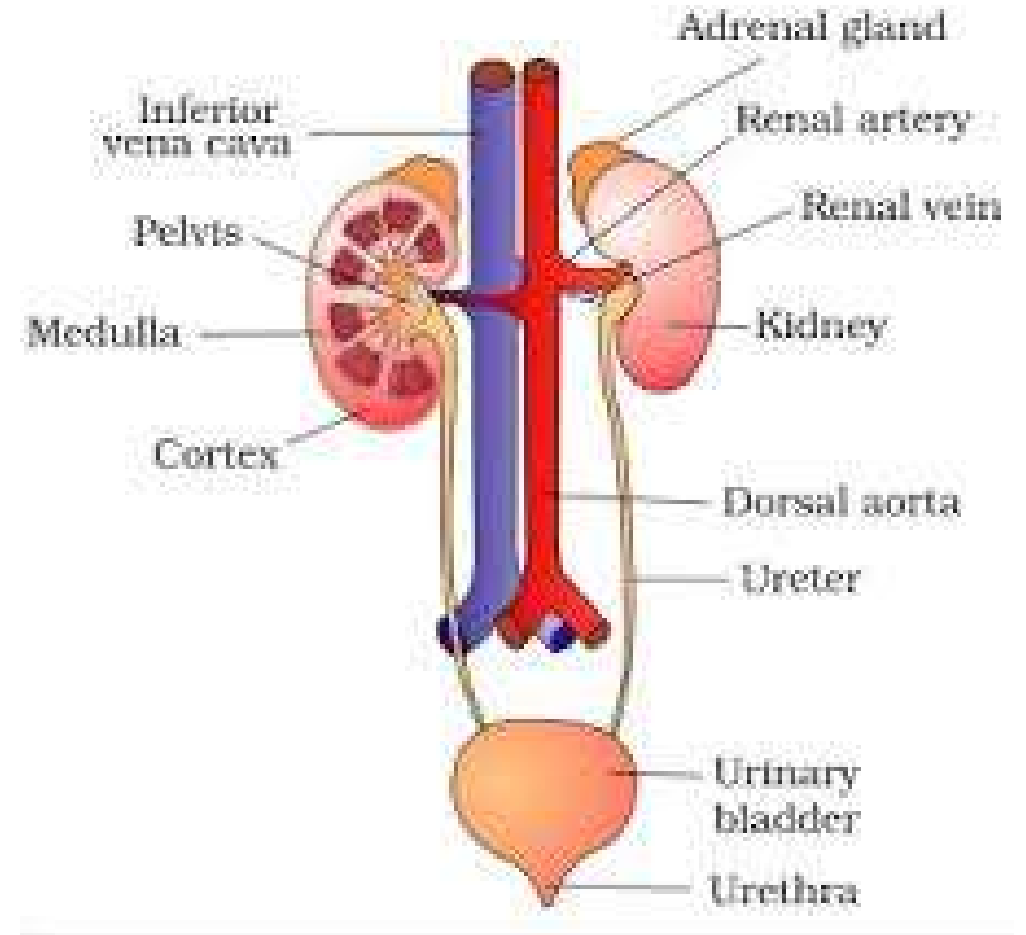
Excretory System

- Functions
 - Removes wastes from blood
 - Removes harmful substances from blood
 - Regulates body fluids



Excretory System

- Main Parts
 - Kidneys
 - Urinary bladder



What it helps you do...

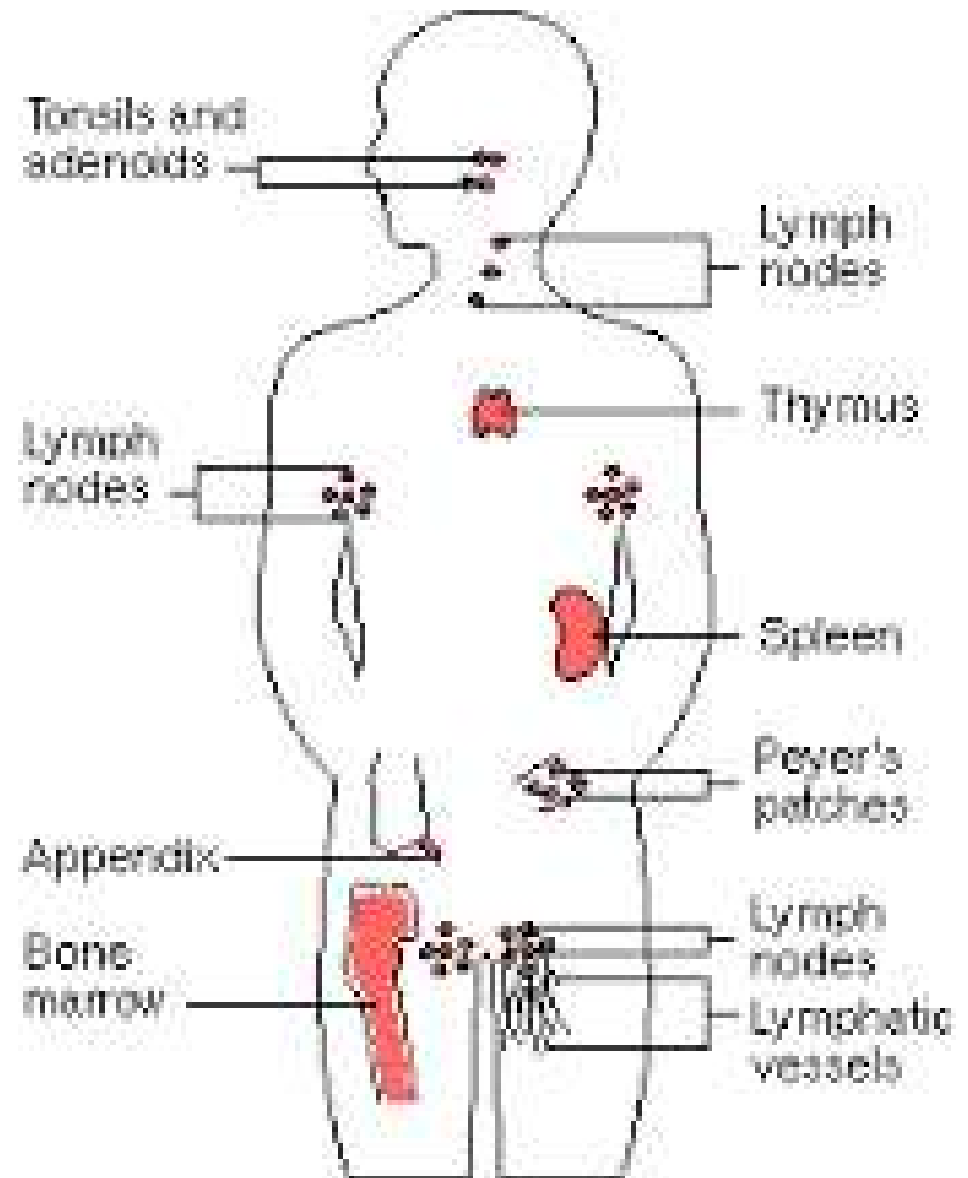
- Maintain homeostasis
- Removes waste

What system does it interact with:

- Circulatory – to help remove waste from the blood

Immune System

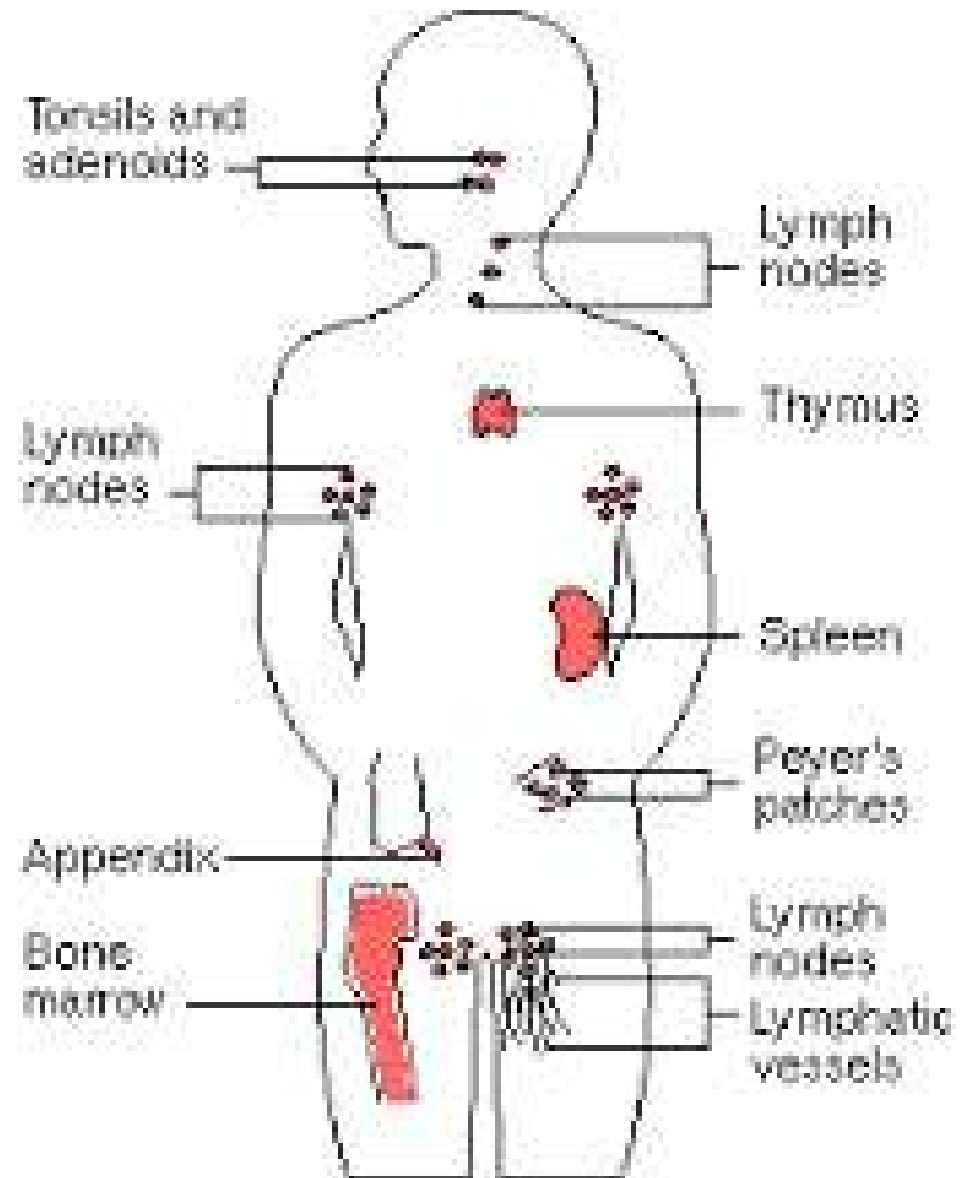
- Functions
 - Fights off disease



Immune System

- Main Parts

- Lymph nodes
- White blood cells
- Skin



What it helps you do...

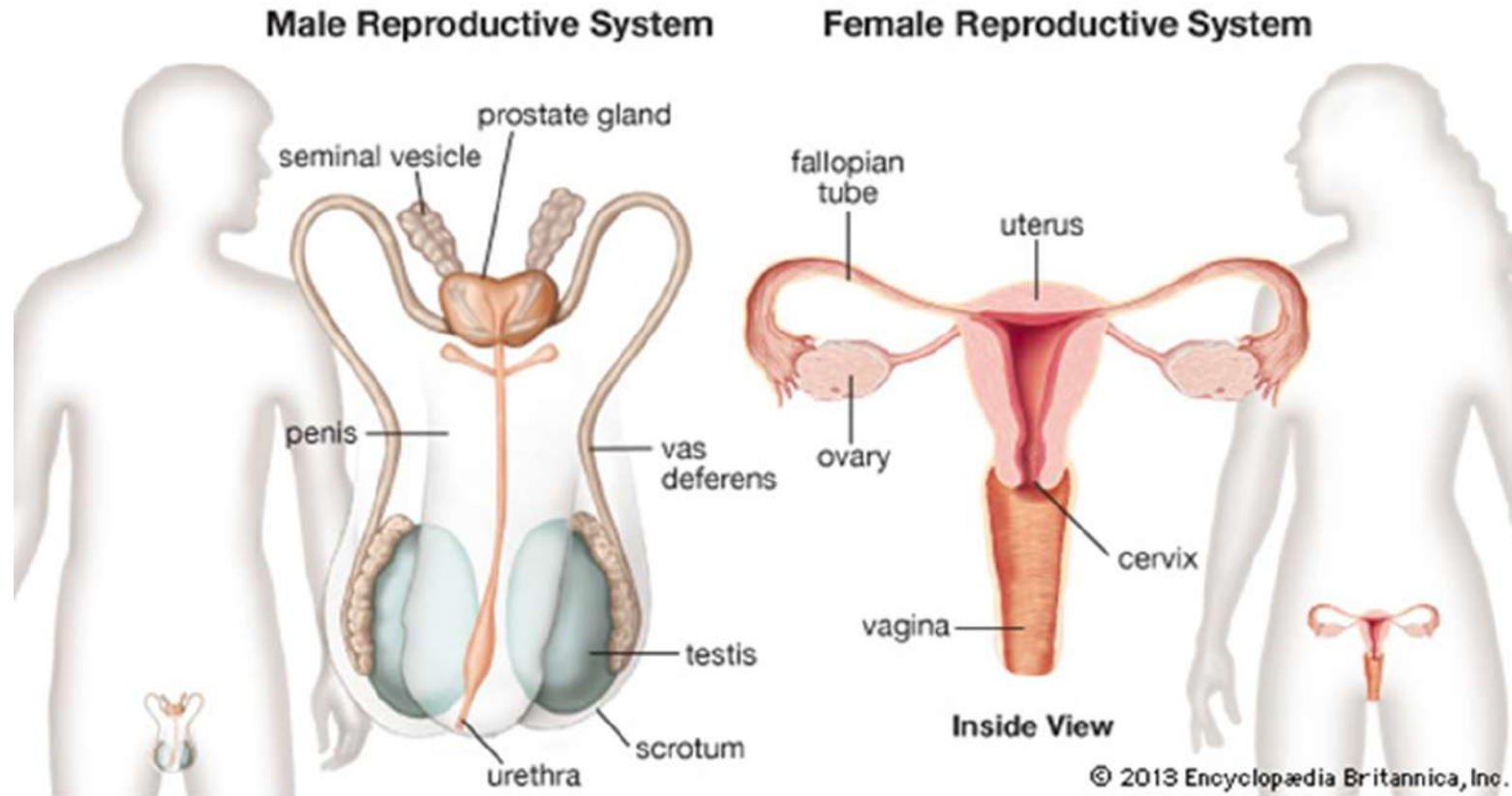
- Maintain a healthy body

Interactions with other systems:

- Circulatory, integumentary, lymphatic – helps fight diseases

Reproductive System

- Functions
 - Produce offspring
 - Males- make sperm
 - Females- make eggs



Reproductive System

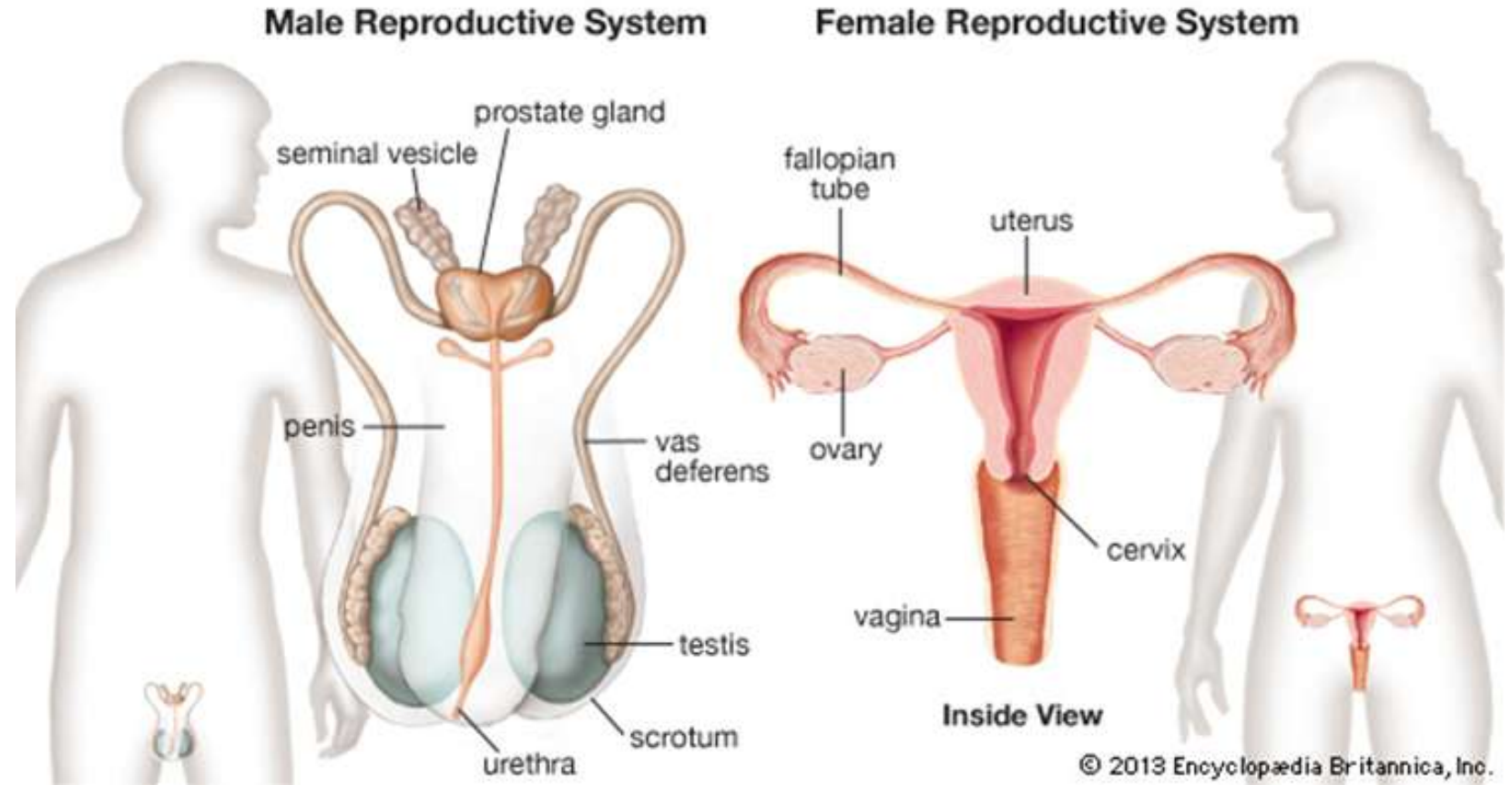
- Main Parts

- Male

- Penis
 - Testes

- Female

- Uterus
 - Ovary
 - Vagina



What it helps you do...

- Continuation of the species