

Body System

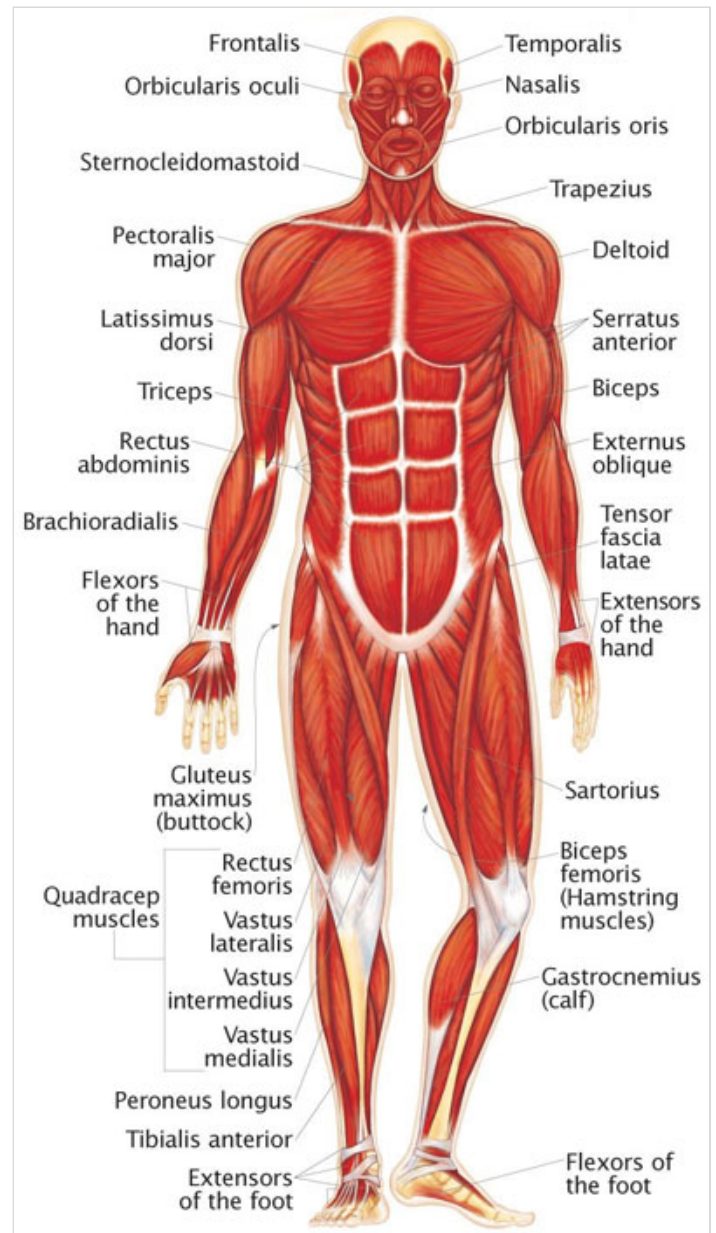
Create a description of your body system. This should include all of its parts, their major functions, and how this system connects to other systems in the body

NICKOLAOS_TSIGARIDIS1 FEB 08, 2017 02:24PM

Muscular System

The muscular system is an organ system consisting of skeletal, smooth, and cardiac muscles. The main function of the muscular system is movement but also helps stabilize our joints, maintain our posture and generate heat during activity. Movement of our body can be voluntary controlled by the skeletal muscles, or it can be involuntary and controlled by smooth muscles. The muscle system consists of cardiac (such as the heart), smooth (such as stomach and intestines) and skeletal muscles (such as deltoids, biceps, triceps and etc.) throughout the body.

The muscular system interacts with the circulatory system by bringing nutrients to muscles and taking away wastes. The muscular system also interacts with the digestive system by using muscles of the jaw to chew food, then use muscles in the esophagus to move food from the mouth to the stomach. They also work with the respiratory system mainly in coordination with the diaphragm, a large flat muscle that is in between the lungs and intestines. Important muscles in the muscular system are deltoids, gluteus maximus, biceps, triceps, hamstrings, quads and etc.



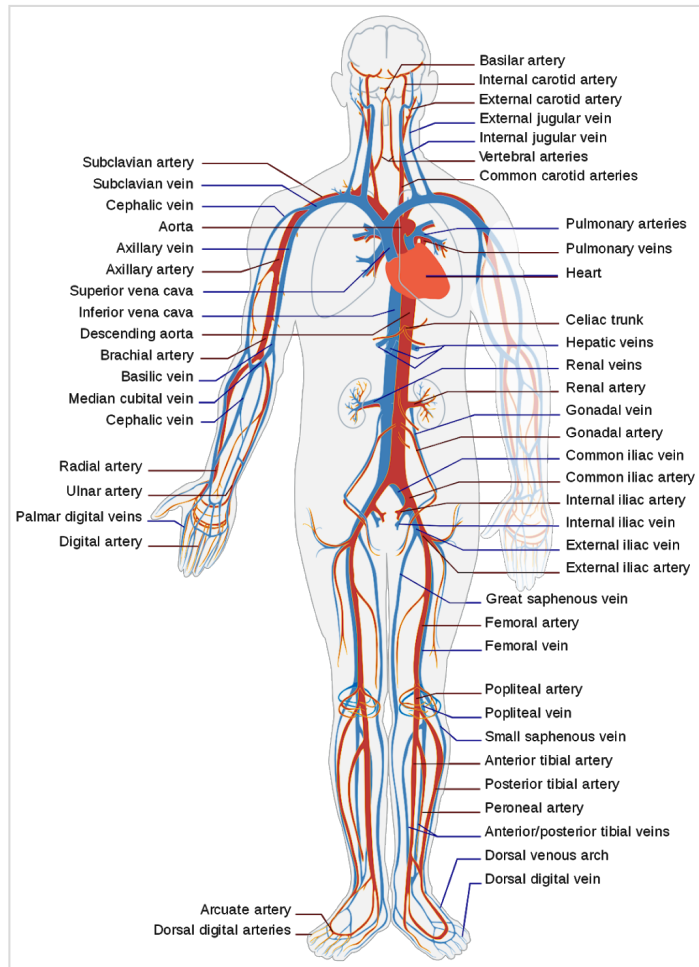
The Circulatory System

The circulatory system is responsible for carrying blood, nutrients, and waste throughout the body. It consists of

lots of blood vessels, blood, and the heart. It's main goal is to supply tissues and the body with oxygen and other nutrients.

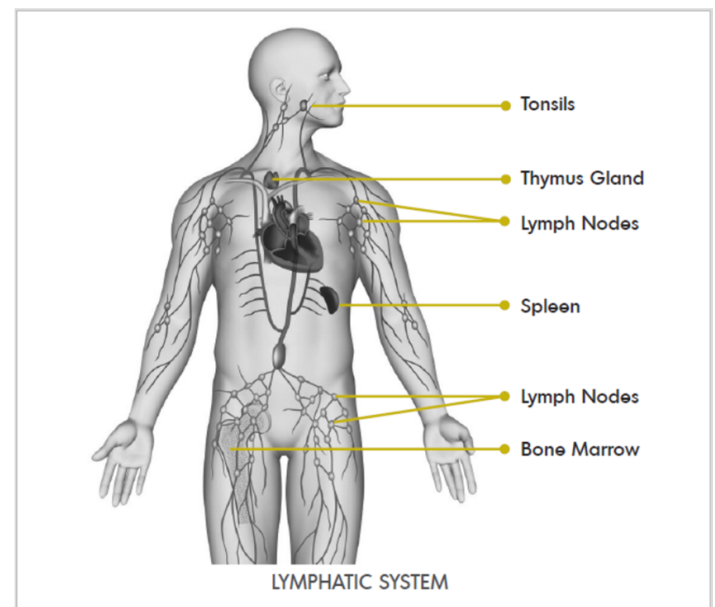
The circulatory system consists of three independent systems that work together:

the heart (cardiovascular), lungs (pulmonary), and arteries, veins, coronary, and portal veins. The heart acts as a pump within the circulatory system. The circulatory system touches every organ and system in the human body in order to transport oxygen efficiently.



The lymph system is not a closed system in the way your circulatory system is closed. The lymph system collects and transports. Collection of fluids begins at the capillaries of the circulatory system and then the fluid directed through a series of vessels that become the thoracic duct. That duct is connected to the largest vein in your body, the superior vena cava, and returns the fluid to your heart and circulatory system. The lymph fluid moves through the vessels as you move the voluntary muscles in your body. The more you move, the more effective your lymphatic system becomes.

Lymph vessels connect lymph nodes throughout your body. Lymph vessel transport lymph through your body and towards lymph nodes. Lymph nodes are made of white blood cells. The blood cells travel through your blood stream and back to the lymph nodes.



Lymphatic system

The lymphatic system is a network of tissues and organs clean the body of toxins and other unwanted or harmful materials. The main function of the lymphatic system is to transport a fluid containing white blood cells through the body. This fluid is called lymph. This system primarily consists of lymphatic vessels which connect to lymph nodes where the lymph is filtered. The tonsils, adenoids, spleen and thymus are also part of the lymphatic system.

INTERACTING WITH OTHER SYSTEMS

Excretory system

The Excretory system is responsible for the elimination of wastes produced by homeostasis. There are several parts of the body that are involved in this process, such as sweat glands, the liver, the lungs and the kidney system.

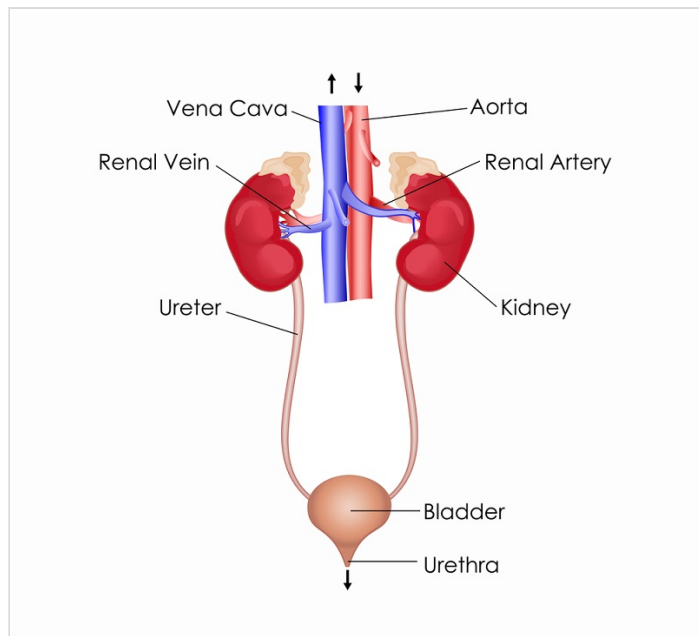
-Excretion is the process of removing wastes and excess water from the body.

-It is one of the major ways the body maintains homeostasis.

-Organs of excretion make up the excretory system. They include the kidneys, large intestine, liver, skin, and lungs.

The excretory system works with the respiratory,

endocrine, urinary and digestive system. It works with the respiratory system because it helps the lungs get rid of carbon dioxide and water vapors. ... The excretory system includes the kidneys, which filter wastes and purify the blood.



Respiratory system

The system in living organisms takes up oxygen and discharges carbon dioxide in order to satisfy energy requirements. The primary organs in the respiratory system are the lungs which carry out this exchange of gases as we breathe.

How does it work with other systems?

The respiratory system does not work alone in transporting oxygen through the body. The respiratory system works directly with the circulatory system to provide oxygen to the body.

The respiratory system is made up of these organs involved in the interchanges of gases:

- Nose
- Mouth
- Throat (pharynx)
- Voice box (larynx)
- Windpipe (trachea)
- Airways (bronchi)
- Lungs

(Nathan Makes The Vikings Walk and Leap)

The circulatory and respiratory systems are closely related

in order to circulate blood and oxygen throughout the body. Air moved in and out of the lungs through the trachea, bronchi, and bronchioles. Blood moves in and out of the lungs through the pulmonary arteries and veins that connect to the heart.

Problems that can occur in the respiratory system:

- Asthma
- Bronchitis

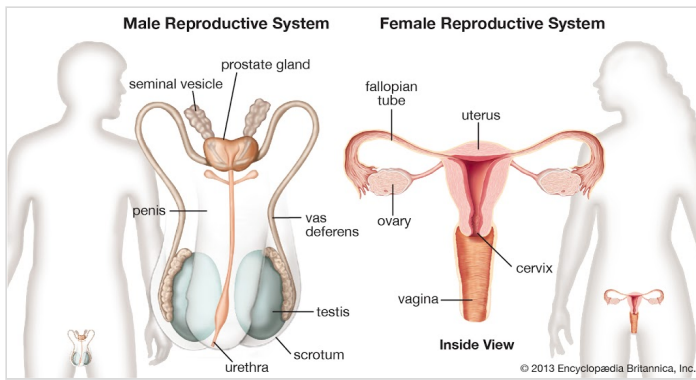
Reproductive system

The reproductive system is made of internal and external sex organs.

Female: The female reproductive system includes ovaries, fallopian tubes, uterus, vagina, vulva, mammary glands, and the breasts. Ovaries are a pair of tiny glands that are about the size of almonds. They produce sex hormones such as estrogen and progesterone. Vagina is a tube that connects the cervix of the uterus to the outside of the body. The functions for the vagina is receptacle for the penis during sexual intercourse. The vulva is the external part of the vagina. It's main function is to protect sexual organs, and urinary opening.

Male: The male reproductive systems consists of the penis, urethra, scrotum, testis, seminal vesicle and the prostate gland. vas deferens. The penis is the male organ for sexual intercourse and urination. semen and urine leave the penis through the urethra. The scrotum is a loose, pouch like sack of skin that hangs behind the penis. The scrotum has a protective function, including the optimal temperature for sperm survival. The epididymus is located at the back of the testis and connects it to the vas deferens. It's main function is to carry and store sperm. Seminal Vesicles are Sac-like pouches that attach to the vas deferens near the base of the bladder. Prostate gland is a walnut sized structure located below the urinary bladder in front of the rectum and contributes to additional fluids to the ejaculate that serves as nourishment for sperm.

How it works with other systems: The reproductive system controls the hormones. The endocrine system secretes hormones into blood and other body fluids. ... Hormones provide feedback to the brain to affect neural processing. Reproductive hormones affect the development of the nervous system. The hypothalamus controls the pituitary gland and other endocrine glands.

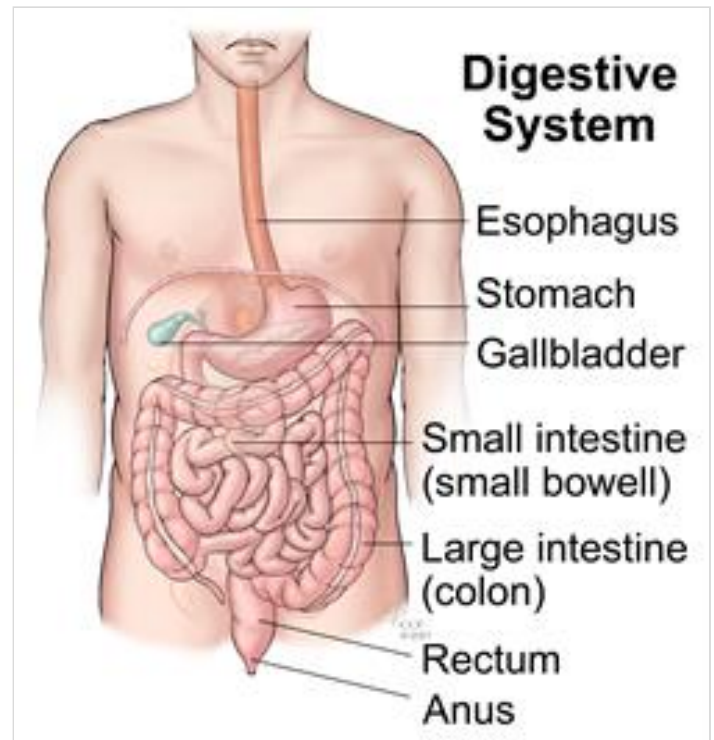


Digestive System

Organs: The organs that make up this system are the mouth, esophagus, stomach, small intestine, large intestine, rectum, and the anus, while the solid organs of the system is the liver, pancreas, and gallbladder.

Functions: The three main functions of this system are digestion of food, absorption of nutrients, and elimination of solid food waste.

How does the system connect to other systems: The digestive system works very closely with the circulatory system to get the absorbed nutrients and distribute it through the whole body. The circulatory system also carries chemical signals from the endocrine system to control the speed of digestion. **Also** the digestive system and the excretory system work together in parallel, the digestive system collects and removes undigested solids, and the excretory system filters compounds from the blood stream and collects them in urine. They are both connected in controlling the level water in your body.



Nervous System

By: Fiona, Cassidy and Jessica

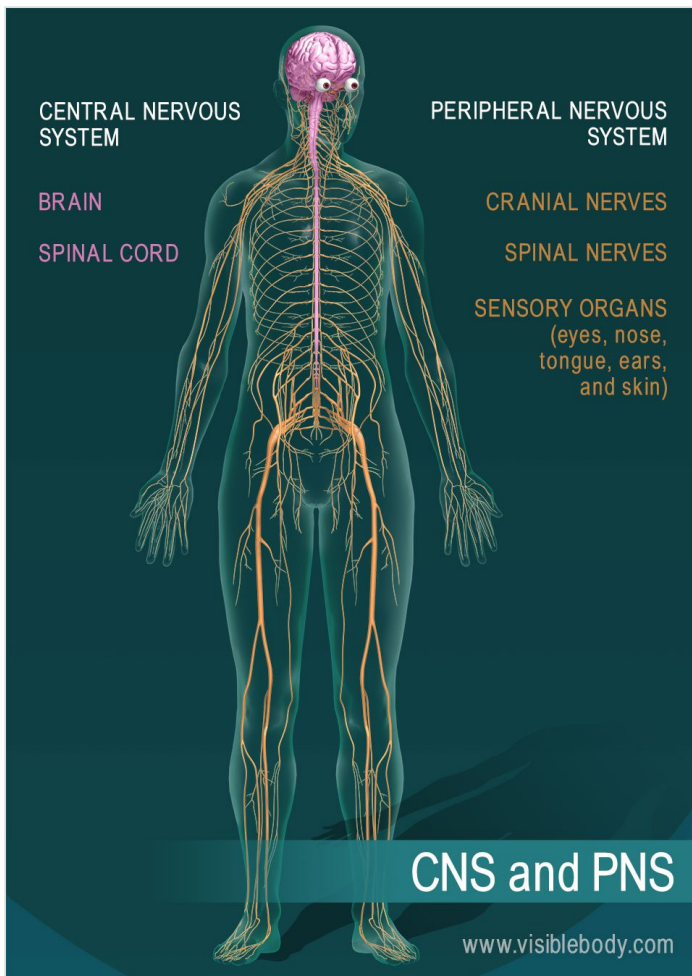
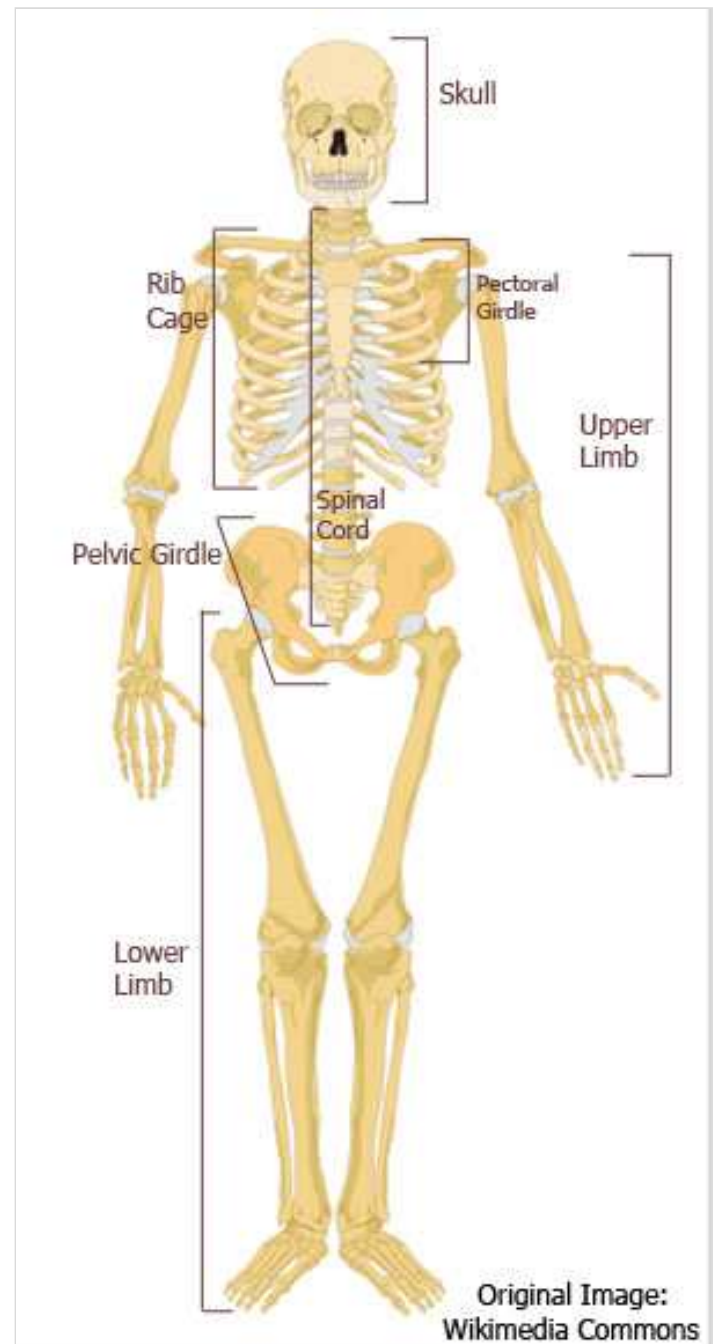
The nervous system has two components, the central nervous system and the peripheral nervous system.

Peripheral system: is made up of the sensory neurons. These neurons carry messages and signals from the brain to the body.

Central system: is made up of the brain, spinal cord and nerves. It controls awareness, speech, thoughts, memory and movement.

Functions: The nervous system plays a big role in everyday activities such as waking up and breathing. It regulates blood pressure.

How it connects to other systems: The cardio vascular system delivers oxygen to the brain, and in return the brain regulates the heart rate and blood pressure.

**MAJOR COMPONENTS:****Skeletal system**

By: Ashley, Erik and Sarah

FUNCTIONS:

- Serves as the framework of the body
- Protects organs
- Facilitates movement by acting as levers and points of attachment for muscles
- Store and release fats and minerals
- Ligaments connect bone to bone
- Endocrine regulation

CONNECTION TO OTHER SYSTEMS:

- The calcified bones of your skeleton also work with the circulatory system. Marrow inside of your bones helps produce the cells inside of you blood. Both red blood cells and white blood cells are created in your bones.
- Blood vessels run through both types of bone marrow to deliver nutrients and remove waste from the bones.
- Tendons connect the skeletal system to the muscular system

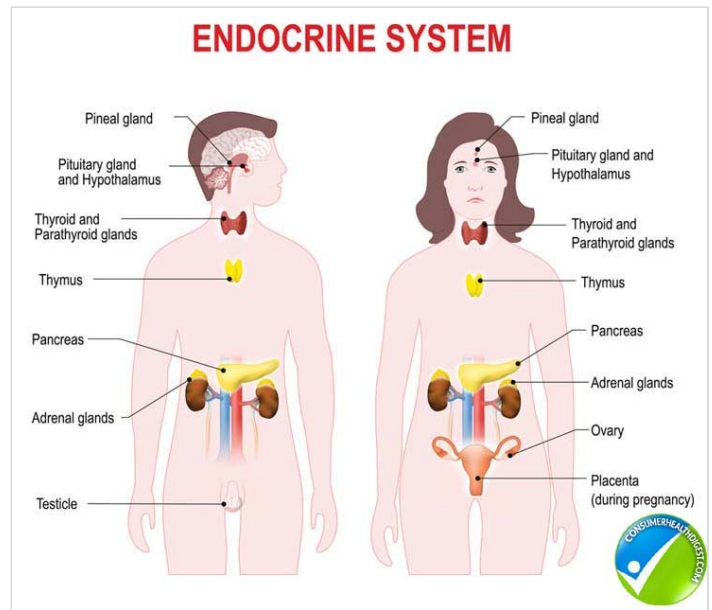
Endocrine System

Made up of glands that produce and secrete hormones, chemical substances produced in the body that regulate the activity of cells or organs. These hormones regulate the body's growth, metabolism, and sexual development and function. hypothalamus, pituitary, thyroid, parathyroides, adrenals, pineal body, ovaries, tes tis.

How it connects to other systems:

The endocrine system secretes hormones into blood and other body fluids. These chemicals are important for

metabolism, growth, water and mineral balance, and the response to stress. Hormones provide feedback to the brain to affect neural processing. Reproductive hormones affect the development of the nervous system.



※※※※※