



# The endocrine system!

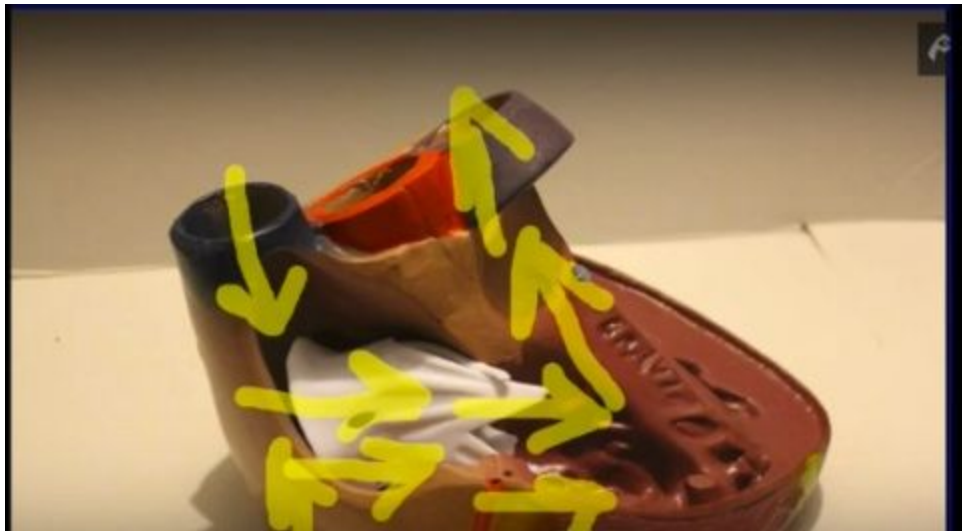
The endocrine system is controlled mainly by the small \_\_\_\_\_ gland, centered in the \_\_\_\_\_ of the brain.

- Understanding the endocrine system can give you much insight into certain disorders that affect the system itself.
- There are two parts to the \_\_\_\_\_. This includes: (1.) *pars distalis* and (2.) *pars nervosa*
- *anterior and posterior pituitary*
- A few main hormones found within the endocrine system include: (also include function)
  - PRL: \_\_\_\_\_
  - \_\_\_\_\_: inhibits prolactin
  - TSH: \_\_\_\_\_
  - ADH: assists with the kidney and water retention



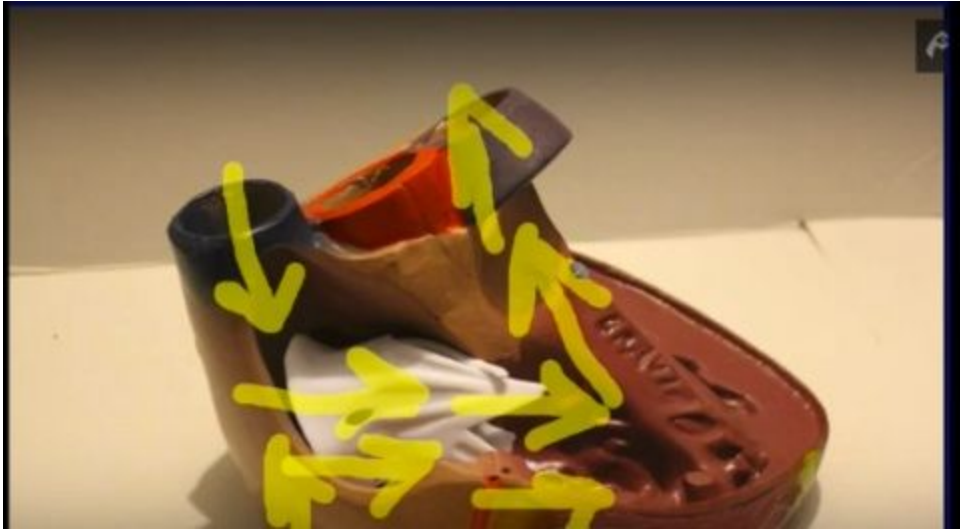
# The Heart!

So we are going to list a sequence of blood flow in the heart using some of our pics!



**Flow of blood sequence: (right side of body as seen in picture)**

- (1.) From superior and inferior vena cava
- (2.) to \_\_\_\_\_ atrium
- (3.) makes way through atrioventricular valve (tricuspid valve)
- (4.) makes its way through right \_\_\_\_\_
- (5.) through \_\_\_\_\_ artery



(continued)

(6.) \_\_\_\_\_ gas exchange in the lungs

alveolar gas exchange \_oxygen\_\_\_\_\_ loading \_\_carbon dioxide\_\_\_\_\_ unloading

systemic gas exchange carbon dioxide \_\_\_\_\_ loading \_\_\_\_oxygen\_\_\_\_\_ unloading

**From left side of heart (as in anatomical position)**



(7.) Returning from \_\_\_\_\_ gas exchange, the \_\_\_\_\_ blood travels into the \_\_\_\_\_ veins.

(8.) From the veins, it travels to the AV valve, known as the \_\_\_\_\_ or mitral valve.

(9.) From here, it travels to the right \_\_\_\_\_.

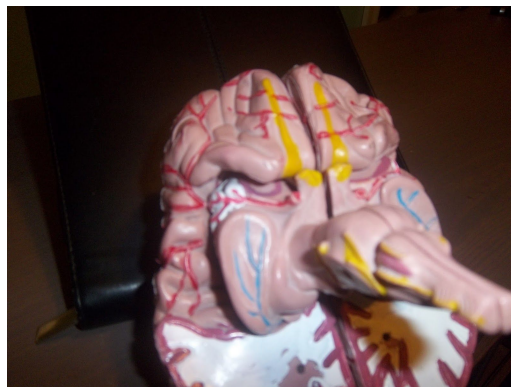
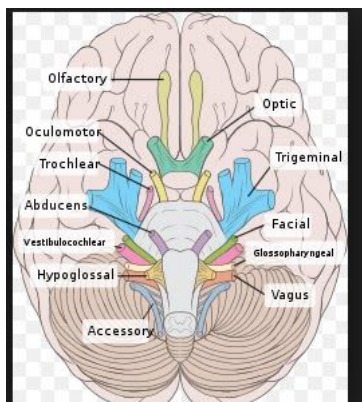
(10.) From the ventricle, it travels to the aorta.





# Recognizing Cranial Nerves

There are 12 (amount) cranial nerves. These are responsible for sense of smell, taste, sight and general senses. (They are depicted in yellow)



Here are more photos of the cranial nerves: (in yellow)



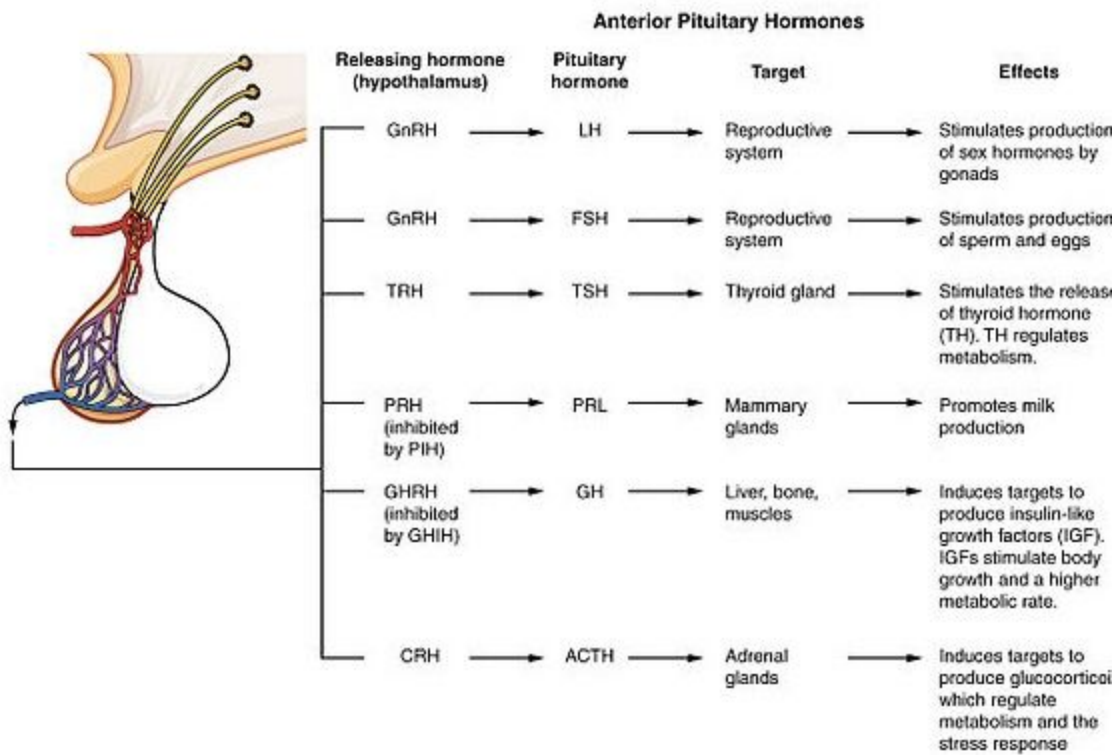
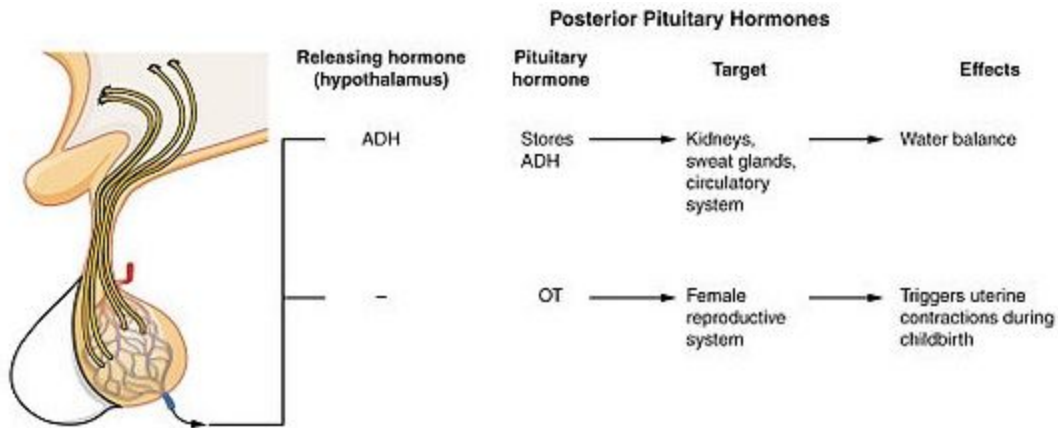


# The endocrine system!

## (part 2)

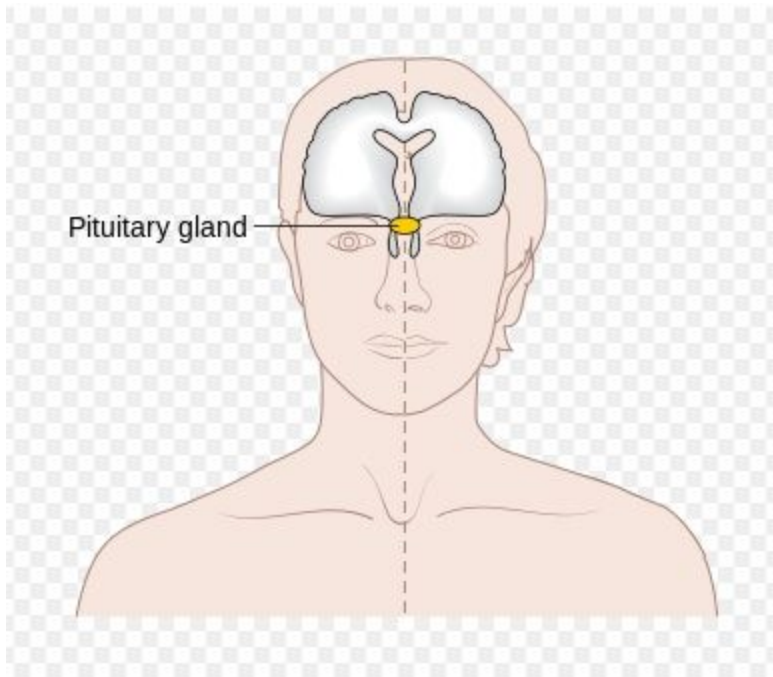
The endocrine system is controlled mainly by the small pituitary gland, centered in the middle of the brain.





- Here are the hormones of the pituitary gland; a more in depth look.





**The endocrine system contributes to stress, human interaction, growth, reproduction, and assists in many of the other systems of the body. With the body, it is important to remember that other systems tend to cross over.**



# The classification of hormones!

1. **Steroid Hormones-** derived from cholesterol
  - a. Include sex hormones: progesterone, estrogen, and testosterone
  - b. Include corticosteroids produced by the adrenal gland (mainly is involved in stress; such as cortisol or aldosterone)
  - c. Includes Calcitriol, a calcium regulating hormone
2. **Peptide Hormones-** (chains of 3 to 200 or more amino acids)
  - a. oligopeptides: Oxytocin, TRH, ADH, GnRH
  - b. Polypeptides: ACTH, ANF, CRH, GH, GHIH, GHRH, PRL
  - c. Glycoproteins: FSH, LH, TSH

- d. Packages as any other protein**
  - i. preproinsulin...proinsulin**
  - ii. Peptides act through second messenger systems, cAMP**
- 3. Biogenic Amines- (psychopathology)**
  - a. Dopamine, Serotonin, Melatonin, T4, T3**
  - b. MITs and DITs**