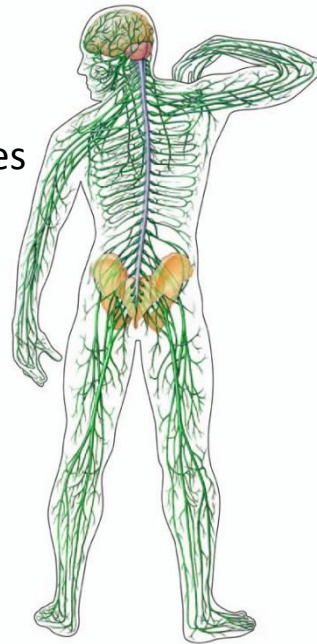


REVIEW: Body Systems (part 2)

Nervous System

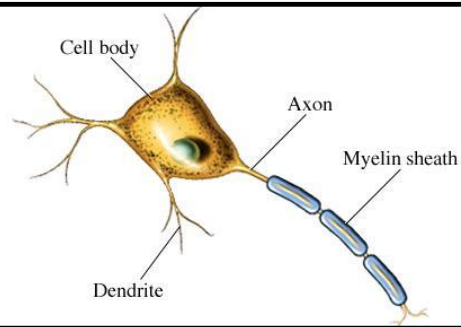
- a COMMUNICATION network
- COORDINATES & CONTROLS all activities

Allows different parts of the body to "TALK" to each other



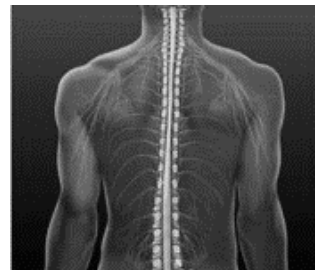
Neuron

- a NERVE CELL
- transmits MESSAGES



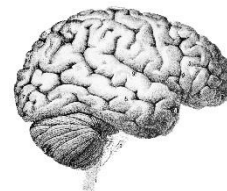
Spinal cord

- conducts MESSAGES
- responds to REFLEX stimuli



Brain

- the body's "SUPER COMPUTER"
- stores, processes, responds



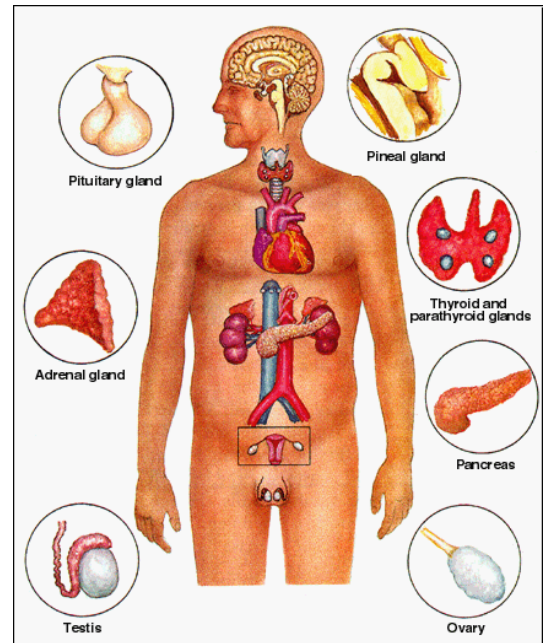
REMEMBER.....



The NERVOUS SYSTEM is like the NUCLEUS of a cell
They REGULATE all activities

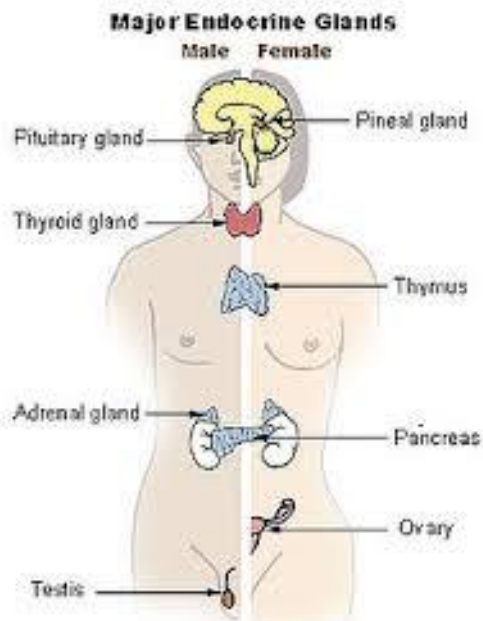
Endocrine System

- works with nervous system
- COORDINATES & CONTROLS activities
- Growth and development



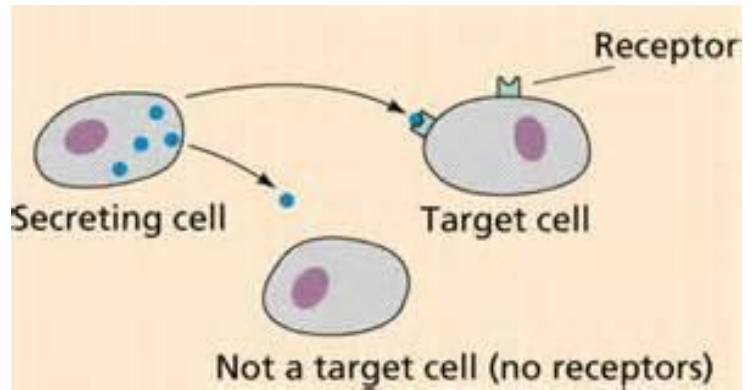
Glands

- Specialized tissue that secretes hormones



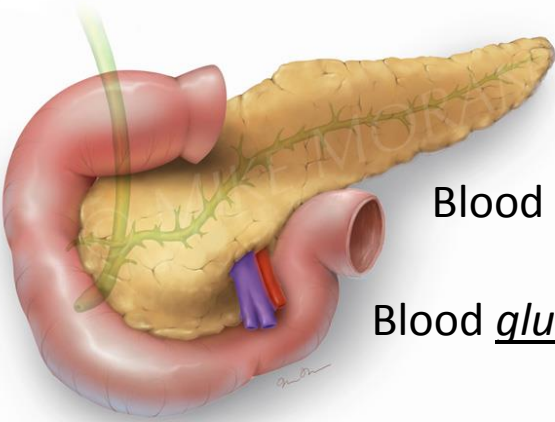
Hormones

- Chemical messengers
- They are SHAPE SPECIFIC



Pancreas

- Secretes INSULIN and GLUCOGEN to regulate glucose



Blood glucose TOO HIGH ➡ INSULIN released

Blood glucose TOO LOW ➡ GLUCOGEN released



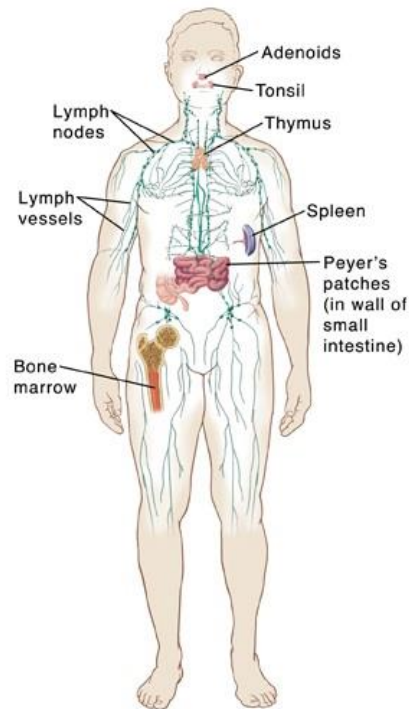
Glands make small adjustments to maintain HOMEOSTASIS....



FEEDBACK MECHANISM

Immune System

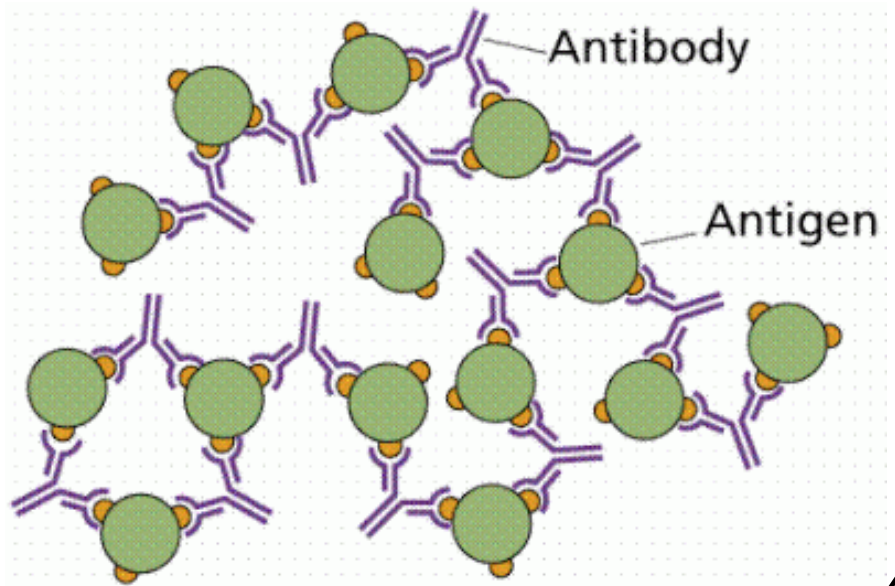
- The "SECURITY SYSTEM"
- IDENTIFIES intruders
- DESTROYS intruders



Antigens

- Protein markers that are on all cells that enter the body

- ✓ WHITE BLOOD CELLS can identify an antigen.....
- ✓ WBC make antibodies.....
- ✓ The antigen is attacked and destroyed!



"This is
WAR!"

When the Immune System makes a mistake....

Allergic Reactions

- An antigen is mistaken for a harmless substance

Organ Rejection

- Immune system attacks a transplanted organ

Autoimmune Disorder

- Immune system attack normal body cells



Vaccines

- Weakened form of a pathogen
- Injected into body
- Antibodies are produced



Antibiotics

- Kills bacterial infections
- DOES NOT kill VIRUSES!



