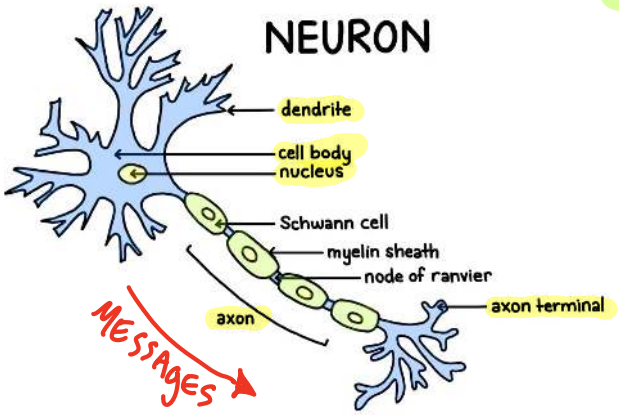
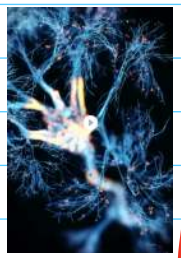
# NERVOUS SYSTEM

- the Job of the NERVOUS System is to Respond to Your Environment
  - REACTS to Stimuli → can be
    - External (ex: temperature)
    - internal (ex: food arriving in stomach)




- unlike most systems, the nervous system is composed ALMOST entirely of 1 tissue
  - 100% made of NEURONS
    - its Job: SEND & RECEIVE MESSAGES



- A NEURON Receives MESSAGES from small Branches of cell (DENDRITES) which PASS the message through CELL to the AXON
  - CARRY MESSAGES to dendrites of other CELLS.

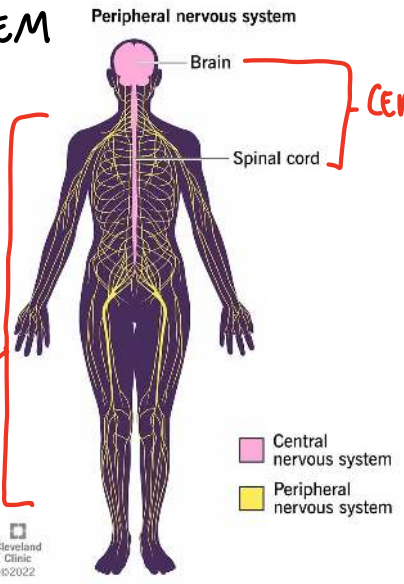
WATCH: Synaptic TRANSmission → https://drive.google.com/file/d/1Vmt4HfOzsUBH538CKH60xAbI2n1voHbb/view?usp=drivesdk
(SYNAPSES ARE THE CONNECTIONS BETWEEN 2 NEURONS OR A NEURON & A CELL)

## ORganization: Division of nervous system

- Central nervous system: Brain & Spinal cord
- Peripheral nervous system: HEAD & Spinal nerves
  - 2 TYPES of NEURONS
    1. SENSORY NEURONS: carry info from Body to central n.s.
    2. MOTOR NEURONS: CARRIES info from central n.s. to muscles & organs.



WATCH: Spinal Cord & Brain → https://drive.google.com/file/d/1ZcVY65qfgfW3YxDC5lWqjkfQGI7ks022/view?usp=sharing



## 2 other parts of Peripheral N.S.

- → Somatic nervous system → Voluntary responses (EX: turning your head)
- → Autonomic " " → Autometic " " (EX:- Breathing, -pupils dicating)

## Central Nervous System

- Brain receives stimuli from outside world & internally from body

- Spinal cord connects brain to peripheral nervous system




## Reflex Response

- Sensory & motor neurons work together without help of the brain
  → This is known as a **reflex**

An automatic response by nervous system to an external stimulus

- By the time the neurons have sent this message to the brain, your body has already reacted.

- this exists to reduce the time it takes to respond or remove yourself from harmful situations. #Evolution

## Uneven Sense of Touch

- Unlike other senses (sight, hearing, smell, taste) the sense of touch is not found in one specific place.

So... this makes skin the largest organ in human body



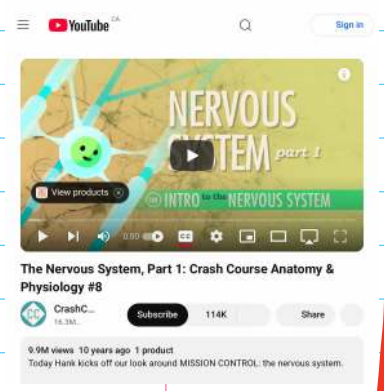
Drawn to normal proportions

Drawn in proportion to its sensitivity to touch

## Brain, Spinal Cord, and Nerve Disorders (9)



- Angioplasty with Stenting
- Arteries of the Brain
- Basal Ganglia: Frontal View
- Brain
- Midbrain: Cross-Section (Normal Anatomy)
- Multiple Sclerosis: Neurons with Degenerated Myelin
- Nerve Impulse
- Parkinson Disease in the Midbrain
- Spinal Column and Spinal Cord



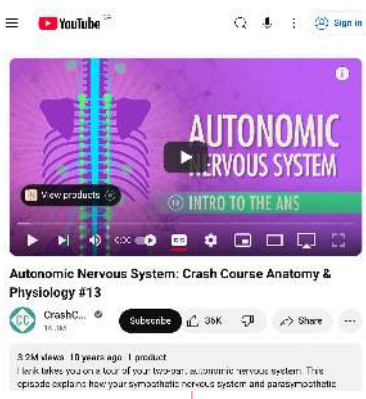

INTRO to the NERVOUS SYSTEM

https://youtu.be/qPix_X-9t7E?si=kqVzjG9WQaB05ndi




NERVOUS SYSTEM PART 2

https://youtu.be/OZG8M_IdA1M?si=3bzPJmzT41M8PCMY



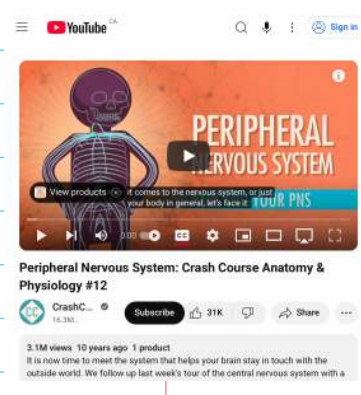

AUTONOMIC NERVOUS SYSTEM

https://youtu.be/71pCilo8k4M?si=kWQG0_6NQLl_zavz




SYMPATHETIC NERVOUS SYSTEM

https://youtu.be/0IDgBlCHVsA?si=DO6nh4M_pGn6DCvx




PERIPHERAL NERVOUS SYSTEM (PAIN)

https://youtu.be/QY9NTVh-Awo?si=8sejKt0-7BqB3I2M