

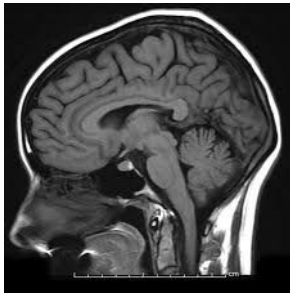
# Cogs 17: Section

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7.6.17

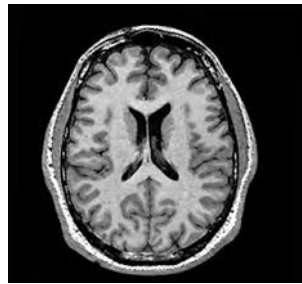
## Contact me

- Section site: [tngoan.github.io/cogs17\\_section/section\\_slides.html](https://tngoan.github.io/cogs17_section/section_slides.html)
- Email: [tngoan@ucsd.edu](mailto:tngoan@ucsd.edu)
- Office Hours: Thursdays 11am-12pm in CSB 233

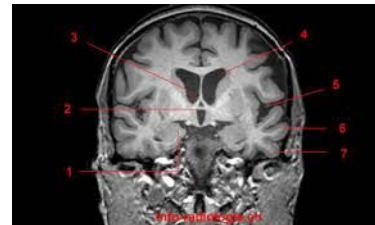
Which are these 3 planes?



A. \_\_\_\_\_

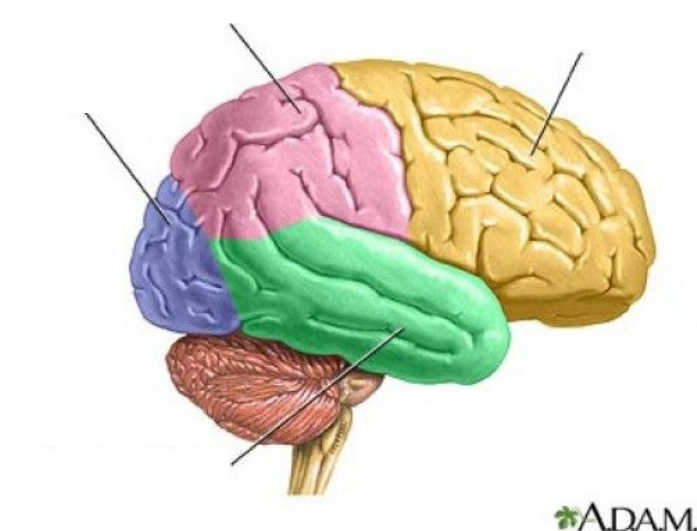


B. \_\_\_\_\_



C. \_\_\_\_\_

Label and describe the lobes of the brain



## What do these terms mean?

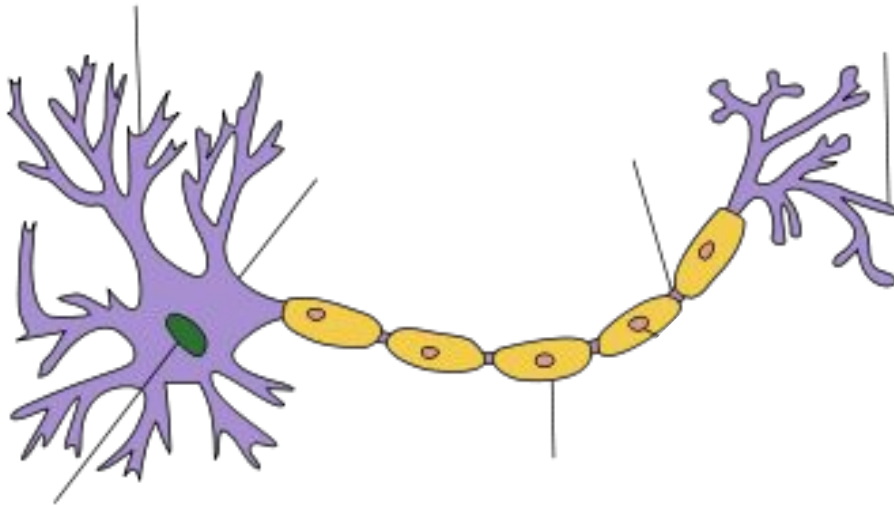
*"The visual cortex receives information directly from its **ipsilateral** LGN that receives signals from the **contralateral** visual field."*

- Ipsilateral -
- Contralateral -

## What is the function of these cells?

- Neuron -
- Glia cell -

**Label these neuron parts**



**How do cells maintain equilibrium in our bodies?**

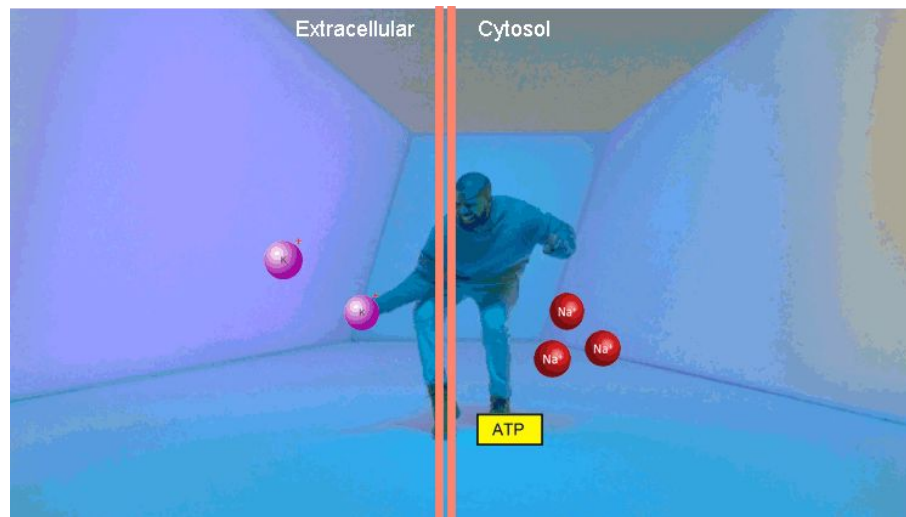
- \_\_\_\_\_ - Difference in amount of a given chemical inside/outside a cell
- \_\_\_\_\_ - Difference in charge inside/outside cell

**What is the symbol for these ions?**

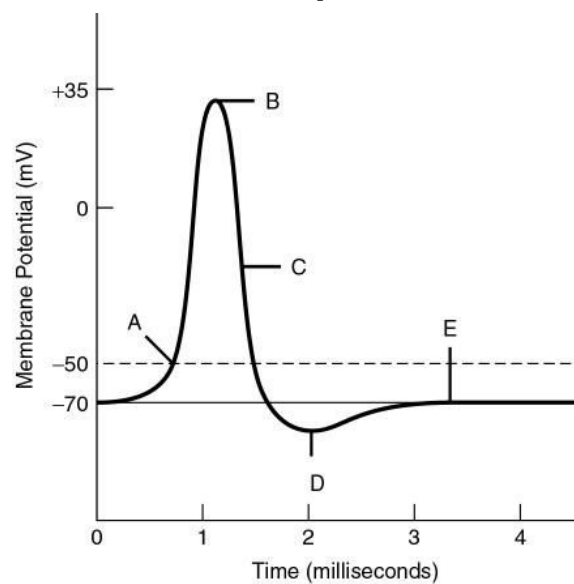
- Sodium:
- Potassium:
- Calcium:
- Chloride:

**What is the Sodium-Potassium Pump?**

**3 Na<sup>+</sup> OUT/2 K<sup>+</sup> IN**



**Label and describe the steps of an action potential**



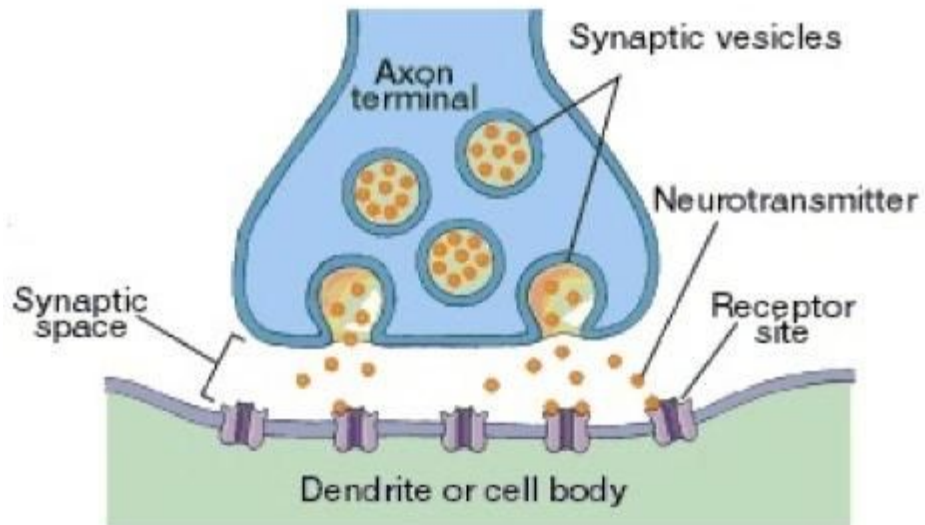
## **Other Key Terms and Concepts**

- Refractory period -
- All-or-none law -

## **How does myelin aid in conduction velocity?**

- Myelin sheath -
- Nodes of Ranvier -
- Saltatory Conduction -

How are NTs transferred between neurons?

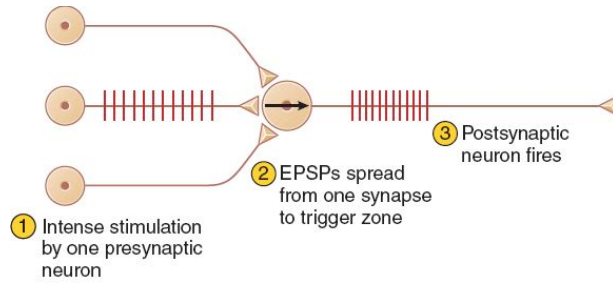


NTs can have 2 effects on postsynaptic cell

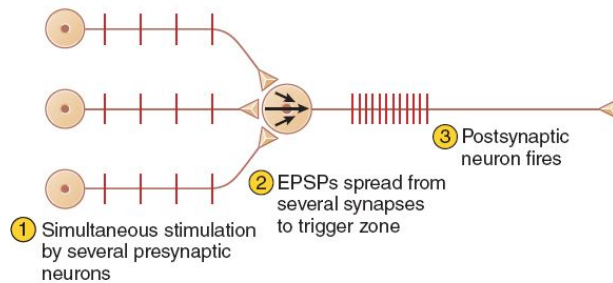
- EPSP -
- IPSP -



**What is the difference between temporal and spatial summation?**



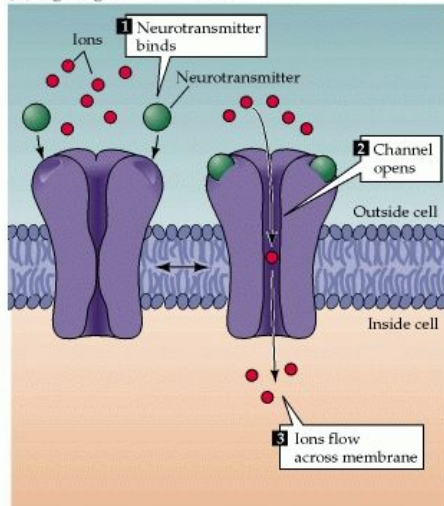
(a) Temporal summation



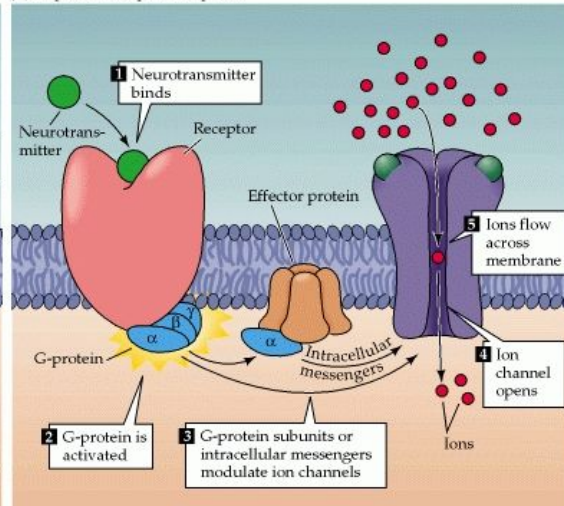
(b) Spatial summation

**2 mechanisms for how NTs affect the postsynaptic cell**

(A) Ligand-gated ion channels



(B) G-protein-coupled receptors



## What's the difference between agonists and antagonists?

- Agonist -
- Antagonist -

## Main Neurotransmitters

- ACh - neuromuscular junction, arousal
- GABA - suppresses cortical activity, regulate anxiety
- Glutamate - learning, perception
- Serotonin (5-HT) - sleep, mood regulation
- Dopamine - reward, reinforcement
- Norepinephrine/Noradrenaline - arousal, attention
- Substance P - pain
- Endorphins - counteract substance P
- Hormones - e.g. oxytocin, insulin, cortisol

## **Memorization and Study Tips**

- Print out a brain and label the parts
- Make flashcards
- Self-explanation