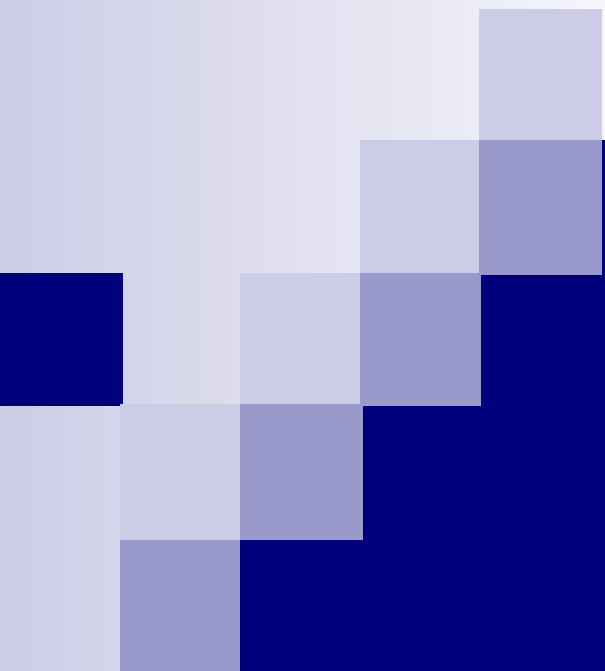


Semey State Medical college  
«Avicenna»



# SIW

Subject: Brain

Prepared by: Talantkyzy M .

Kabdylhamit L.

Group: L-202.

Checked: Seytkalieva B.S

# Brain Structure and Function



# The brain

- Most complex organ of the body
- Only weighs 1,300 grams
- Contains billions of neural networks that interact to create human behaviour



# Forebrain

- Cerebrum and Cerebral cortex
- Left and Right Hemispheres
- Left hemisphere for most people is the dominant hemisphere- responsible for production of language, mathematical ability, problem solving, logic
- Right hemisphere thought to be responsible for creativity and spatial ability

# Frontal Lobe

- Located at the front of both cerebral hemispheres
- Primary motor cortex
- Pre-motor cortex
- Broca's Area- Motor Production of speech
- Complex Functioning- personality, judgement, insight, reasoning, problem solving, abstract thinking and working memory

# Parietal lobe

- Located behind frontal lobe
- Somatosensory cortex
- Spatial orientation, perception and comprehension of language function  
recognising object by touch
- Links visual and somatosensory information together
- Neglect

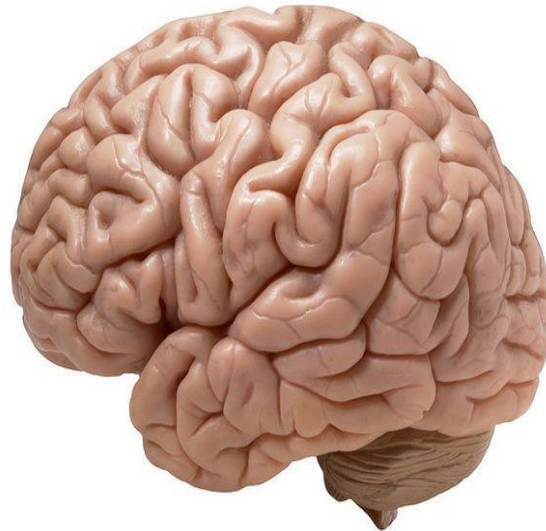


# Temporal Lobes

- Located at each side of the brain
- Involved in receiving and processing auditory information , higher order visual information, complex aspects of memory and language
- Wernicke's Area- Comprehension of speech

# Occipital lobes

- Rearmost portion of the brain
- Visual processing area
- Corpus Callosum- Fibre bundle in the brain that connects the two hemispheres together.





# Three Functional Divisions:



Cerebrum

Sensory  
and motor



Cerebellum

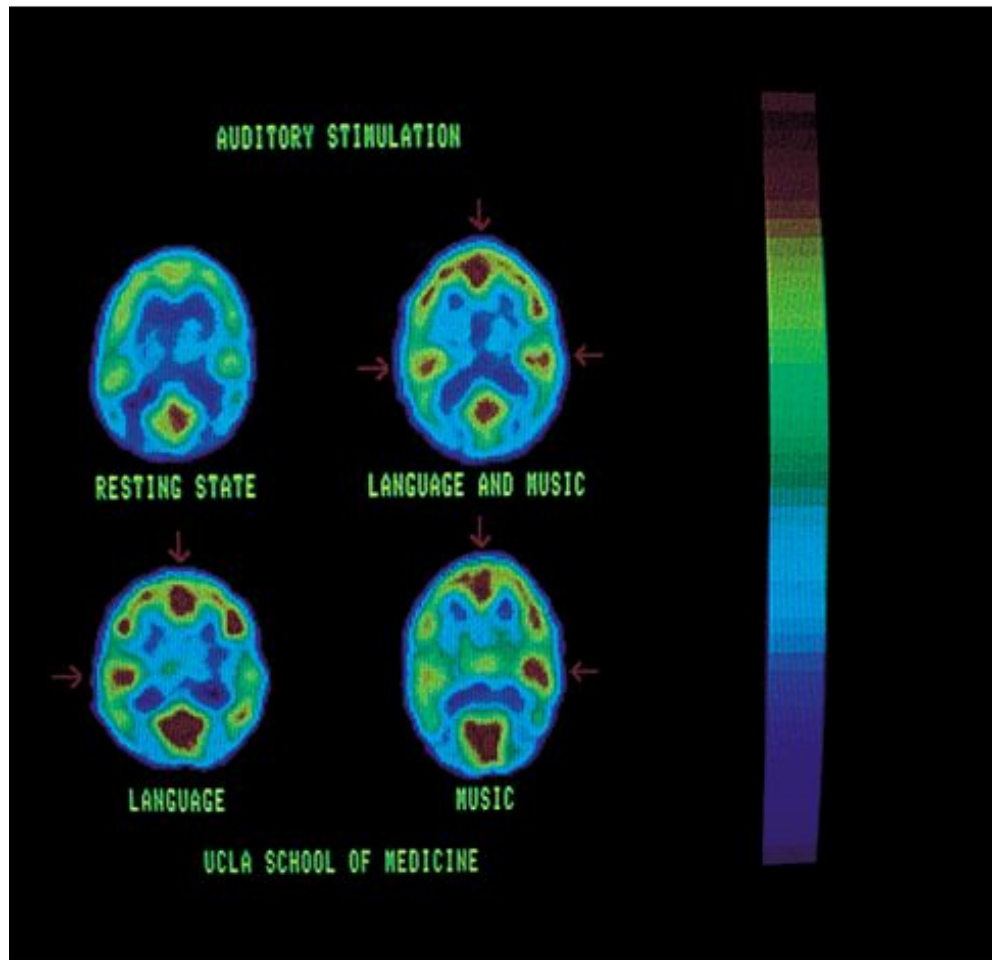
muscle coordination  
and balance



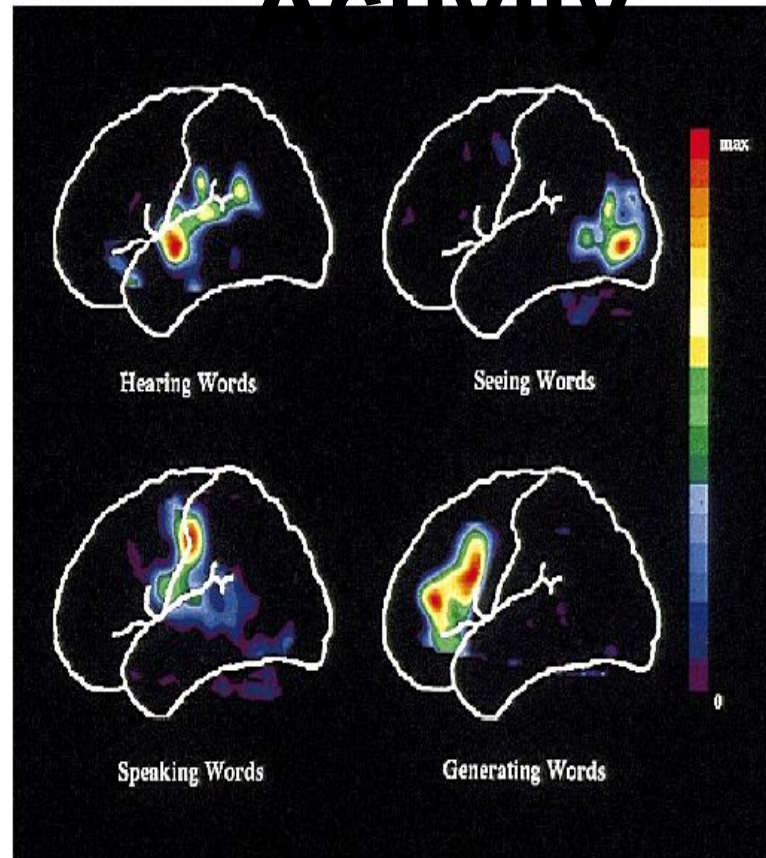
Brainstem

vital regulations  
heart, lungs, GI

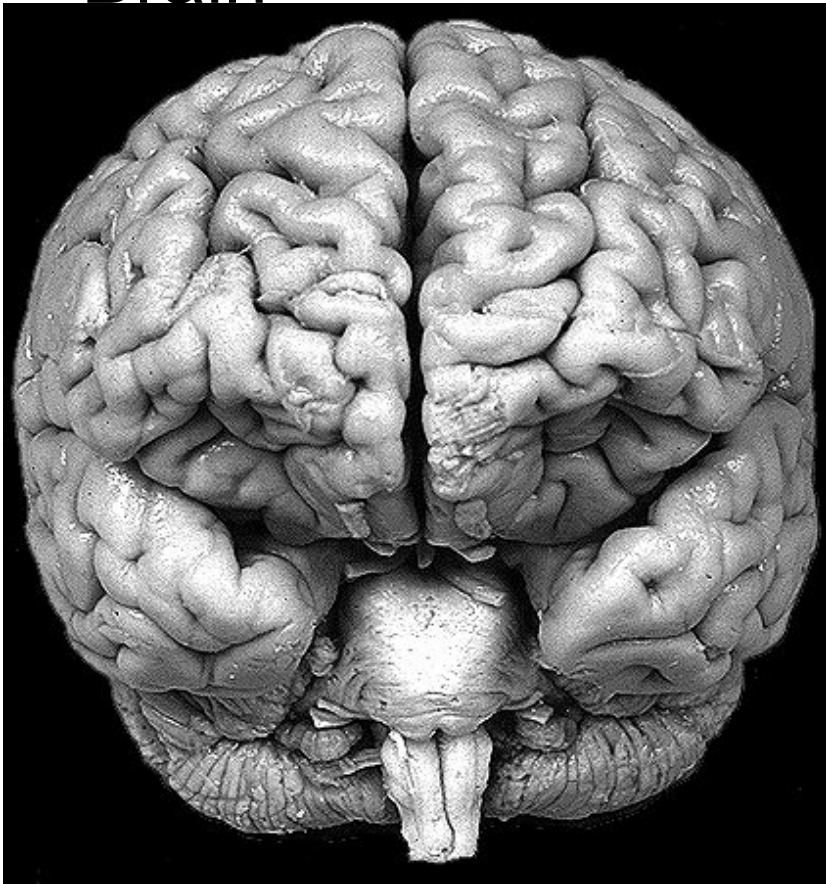
# Positron Emission Tomography- Functional Brain Activity



# PET-Functional Brain Activity



Front of the  
Brain



Back of the  
Brain



# Lateral Surface of the Brain



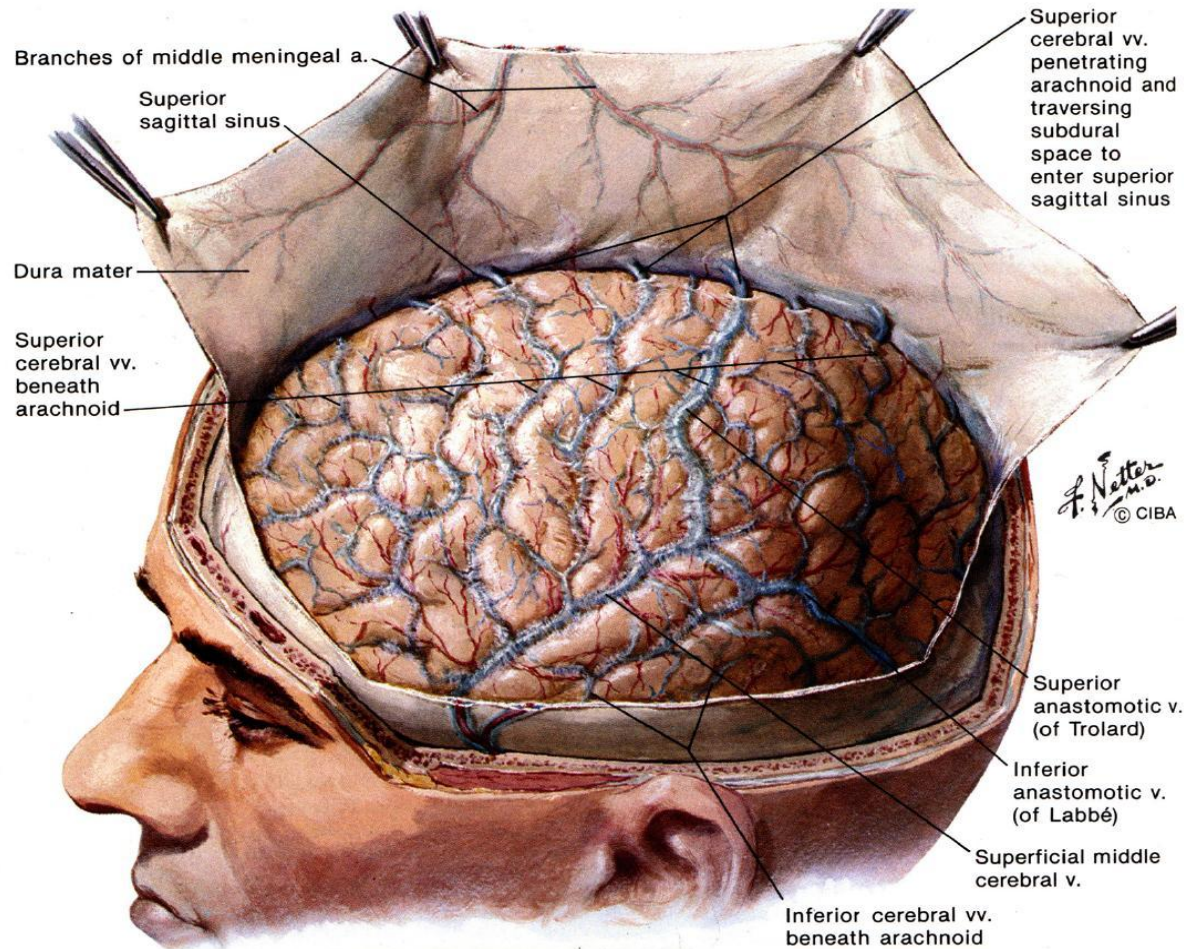
# Central Nervous System



# Meninges and Cerebral Veins

N III Pl. 11B

## Meninges and Superficial Cerebral Veins



# Pia Mater





# References

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**THANK YOU**  
for your  
**ATTENTION!**