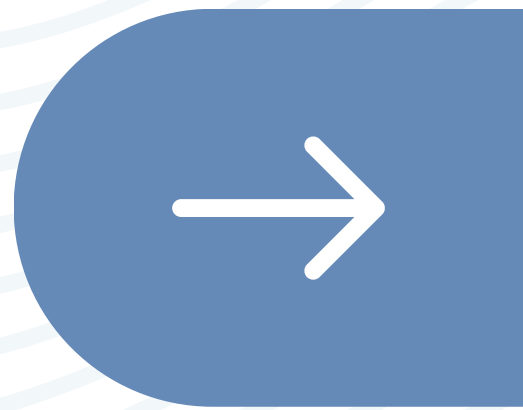


# #DIBS BY NEXTILLO

DAILY INFORMATION BULLETIN SERVICE

**LIMBIC SYSTEM**





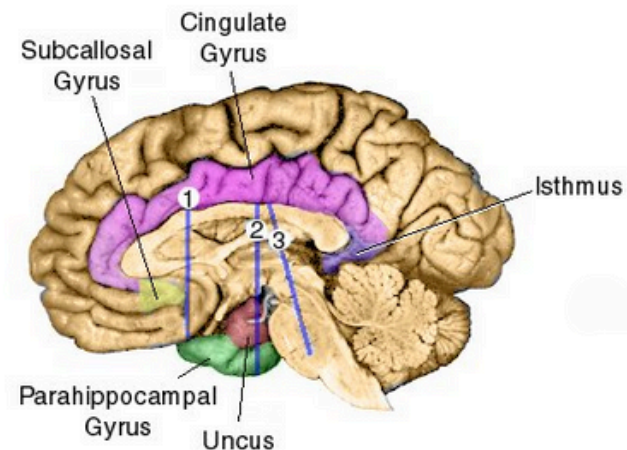
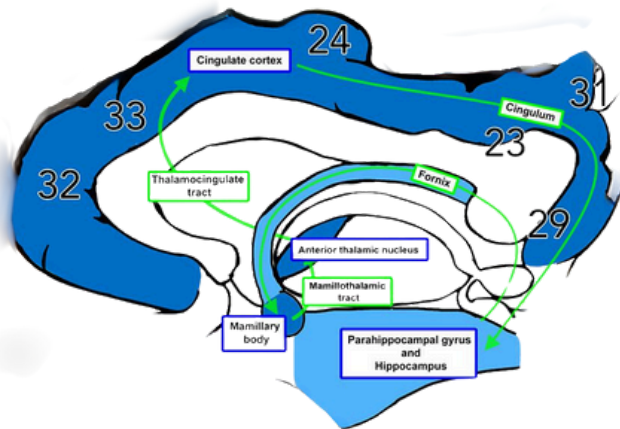
# #DIBSBYNEXTILLO

DAILY INFORMATION BULLETIN SERVICE

## LIMBIC SYSTEM

*The limbic system, often referred to by the mnemonic "5 F's," is a collection of neural structures intricately involved in emotion, long-term memory, olfaction, behavior modulation, and autonomic nervous system (ANS) function.*

# IMAGE DESCRIPTION



- **Illustration portrays key components of the limbic system, including the hippocampus, amygdalae, mammillary bodies, anterior thalamic nuclei, and cingulate gyrus**
- **Limbic system: Influences emotion, motivation, and memory (salience network and Papez circuit).**
- **Amnesic state: Impaired explicit memory, anterograde amnesia, and confabulation.**
- **Bilateral limbic network damage causes persistent global amnesia.**
- **Retrograde amnesia: Vulnerable for recent events, less for remote and consolidated memories.**
- **Confabulation: Common in amnesic states, involves filling memory gaps with inaccurate information.**



# COMPONENTS

- **Hippocampus**  
*Located in the medial temporal lobe.*
- **Amygdalae:**  
*Positioned within the temporal lobe.*
- **Mammillary Bodies:**  
*Situated posterior to the hypothalamus.*
- **Anterior Thalamic Nuclei:**  
*Found in the anterior part of the thalamus.*
- **Cingulate Gyrus:**  
*Spanning the longitudinal fissure.*



# FUNCTIONS

- ***Feeding: Involves the regulation of hunger and satiety.***
- ***Fleeing: Related to responses to threatening stimuli or danger.***
- ***Fighting: Influences aggressive behaviors and responses.***
- ***Feeling: Central to emotional experiences and responses.***
- ***Sex: Impacts sexual behavior and reproduction.***





# CONNECTIVITY AND RESPONSIBILITY

- ***Hippocampus : Linked to memory formation and retrieval.***
- ***Amygdalae: Process emotional stimuli and contribute to emotional memory.***
- ***Mammillary Bodies: Connect with the hippocampus, forming the Papez circuit.***
- ***Anterior Thalamic Nuclei: Integral part of the limbic system's connectivity.***
- ***Cingulate Gyrus : Involved in emotional and cognitive processing***



# MCQ

## **Question:**

***Which limbic system component is primarily responsible for processing emotions such as fear and pleasure?***

- a) *Hippocampus*
- b) *Amygdalae*
- c) *Mammillary Bodies*
- d) *Anterior Thalamic Nuclei*

**Answer: b) *Amygdalae***