

BASAL GANGLIA or BASAL NUCLEI

The basal ganglia are a group of neurons located deep within the cerebral hemispheres of the brain.

The basal ganglia consist-

☐ Caudate nucleus

☐ Lentiform nucleus- 2 parts

Medially- globus pallidus -: 2 segment

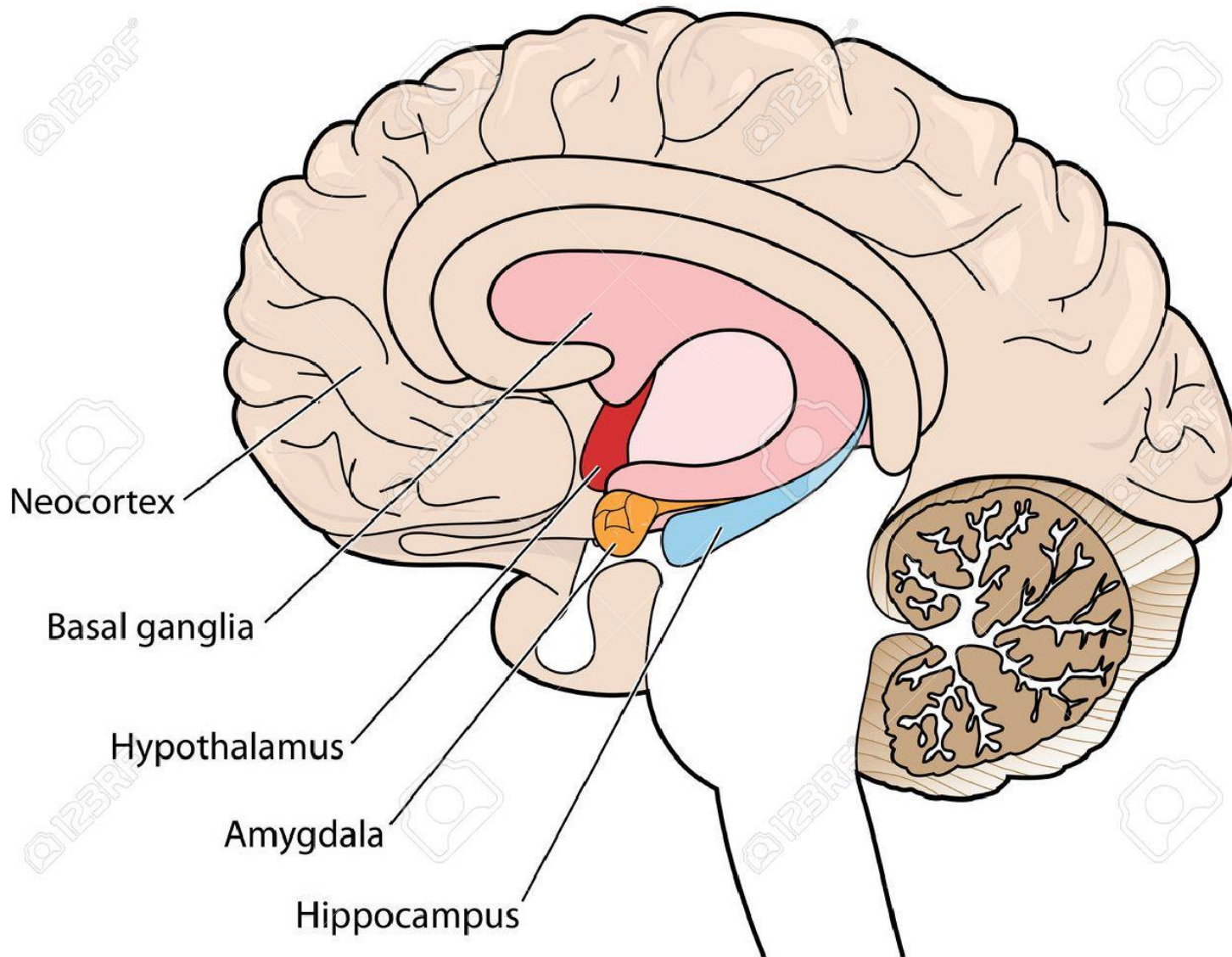
(1) medial segment

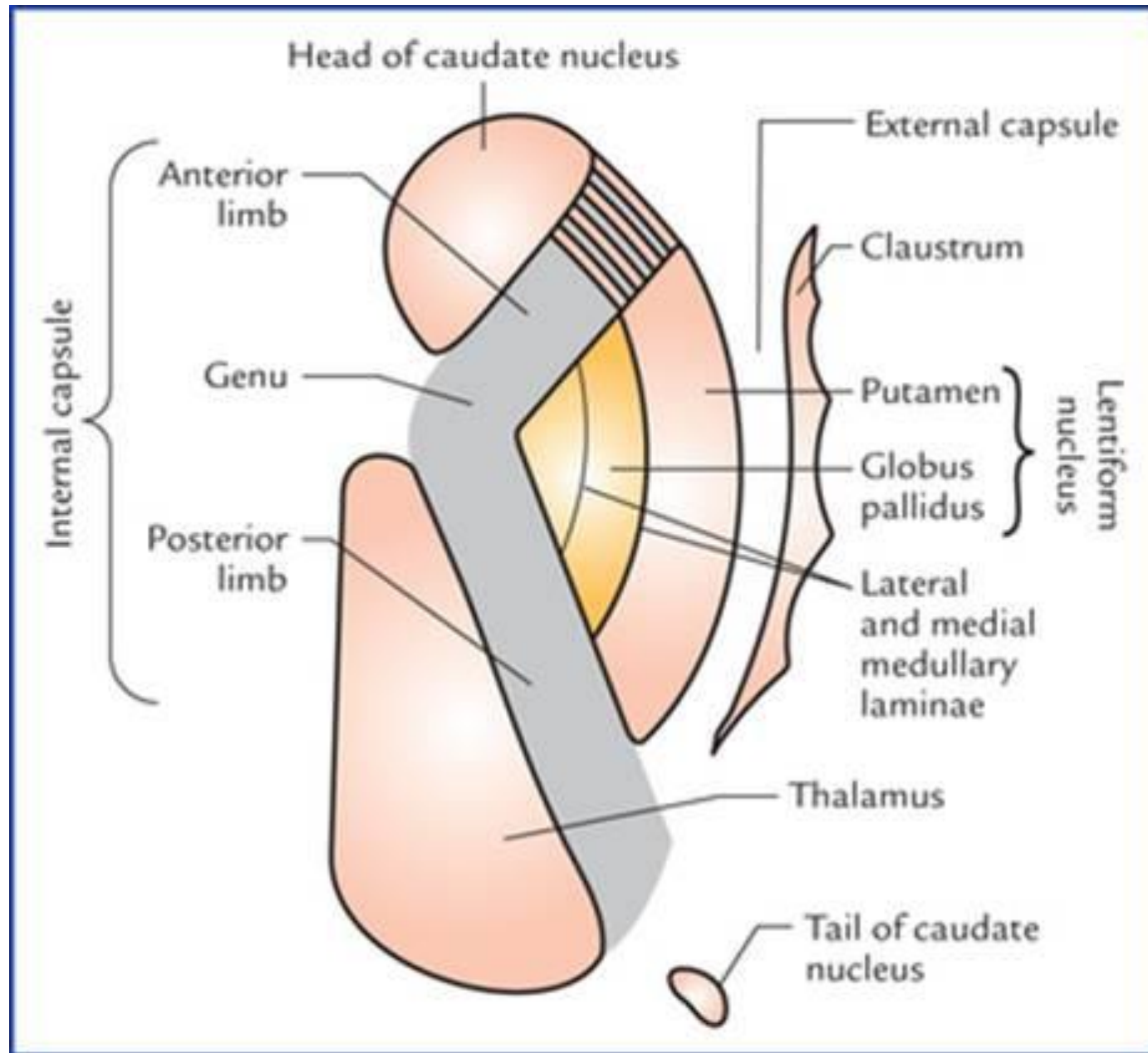
(2) lateral segment

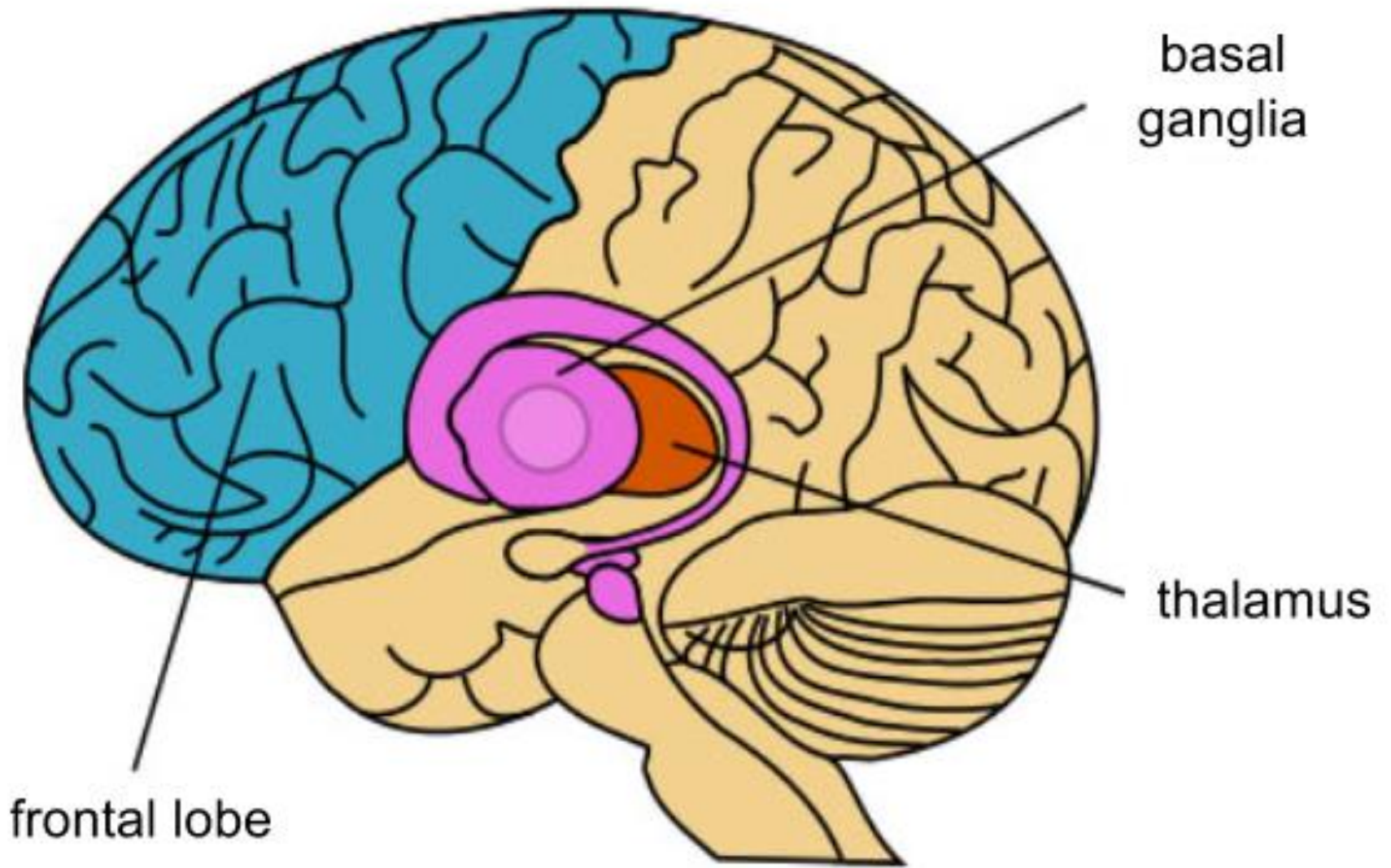
Laterally- putamen

☐ Amygdaloid nuclear complex

☐ Claustrum- often included







basal
ganglia

thalamus

frontal lobe

- **Caudate nucleus + Lentiform nucleus = corpus striatum**
- **Caudate nucleus + putamen = striatum**
- **Caudate nucleus + globus pallidum = pallidum**

Caudate nucleus

- These C-shaped paired nuclei (one in each hemisphere) are located primarily in the frontal lobe.
- Nucleus is related to lateral ventricle.
- The caudate has a head region that curves and extends forming an elongated body that continues to taper at its tail.

- **Head of nucleus -bulge into anterior horn of ventricle**
- **Body- lies in the floor of central part of ventricle**
- **Tail- in the roof of inferior horn of ventricle**
- **Anterior part of head of caudate nucleus fused inferiorly with lentiform nucleus- c/d fundus striati.**
- **Anterior end of tail of nucleus ends by becoming continue with the lentiform nucleus. It lies in close relation to the amygdaloid complex.**

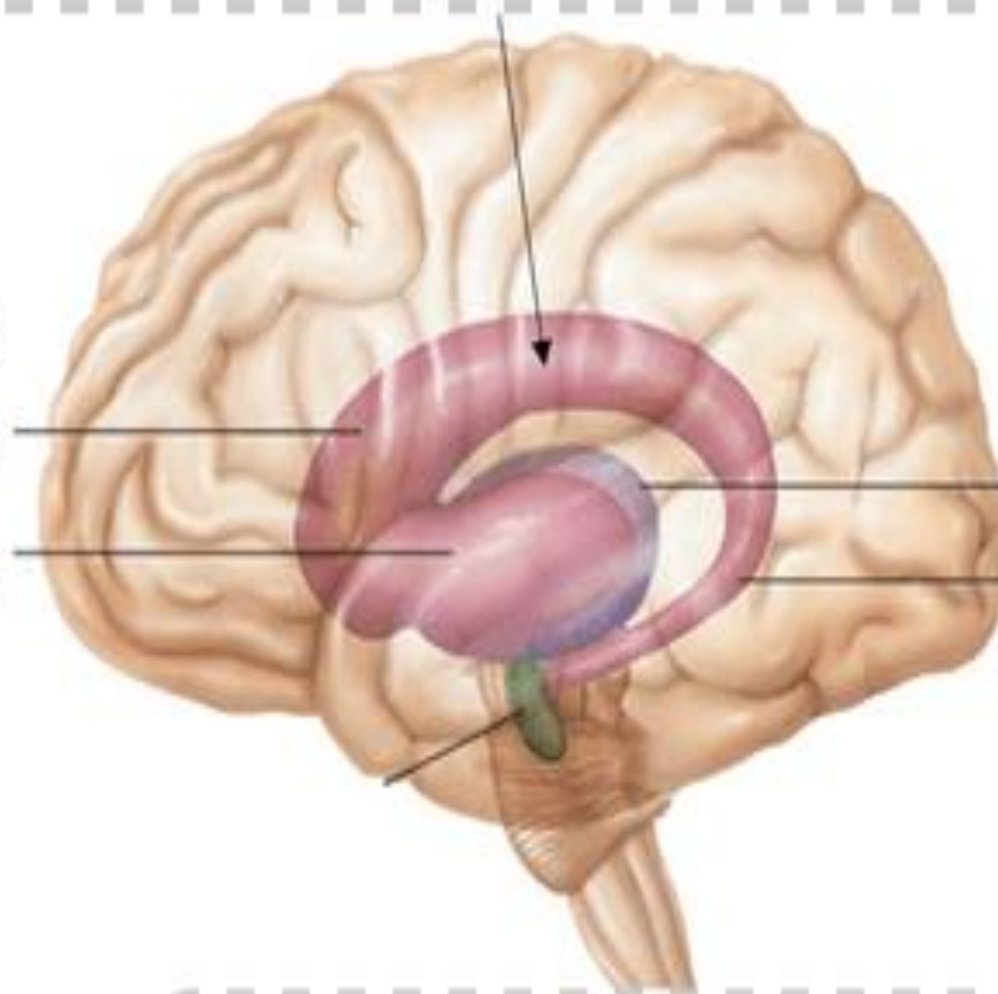
Body of caudate N

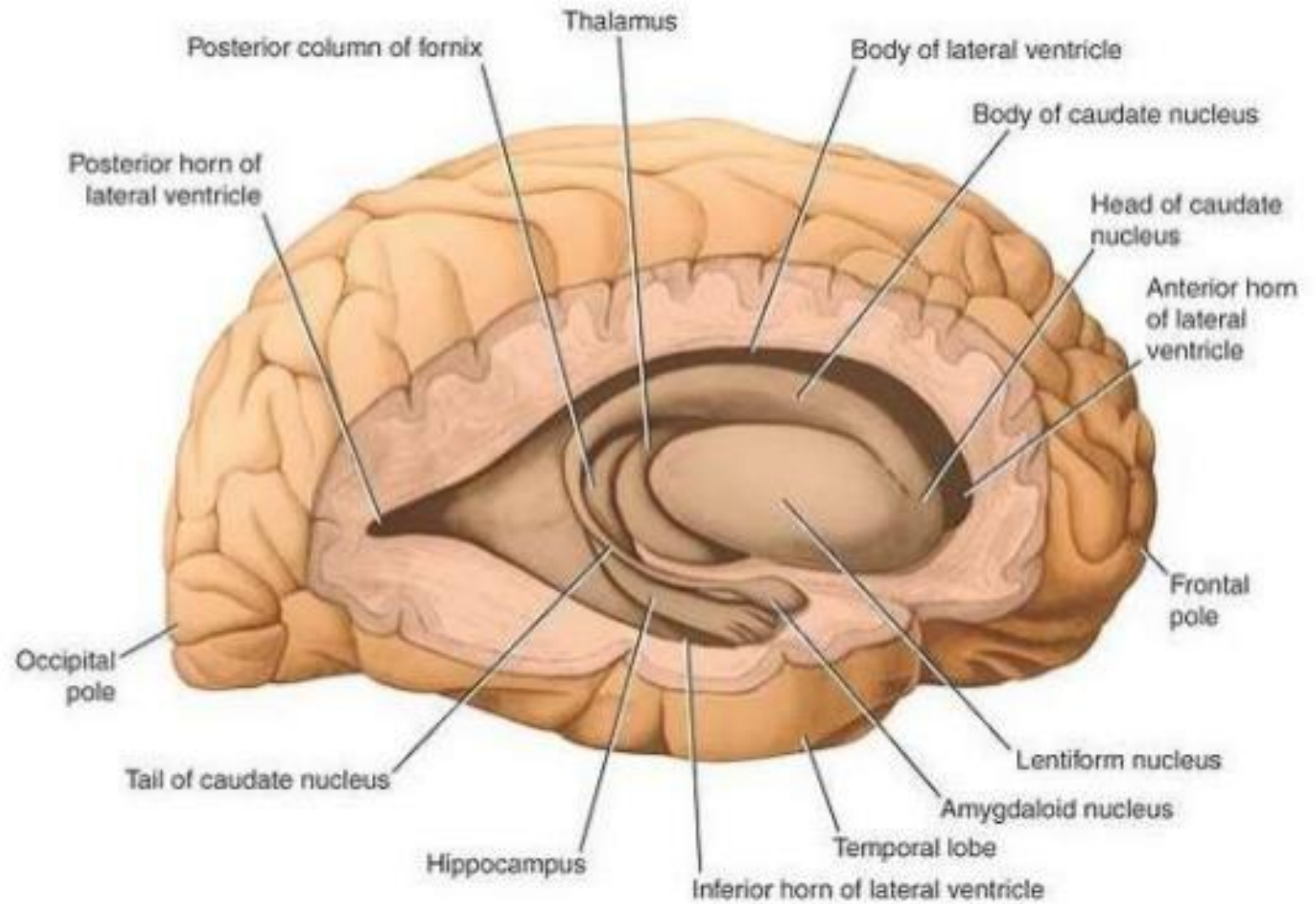
**Head of caudate
Nucleus**

Putamen

Thalamus

**Tail of
caudate N**



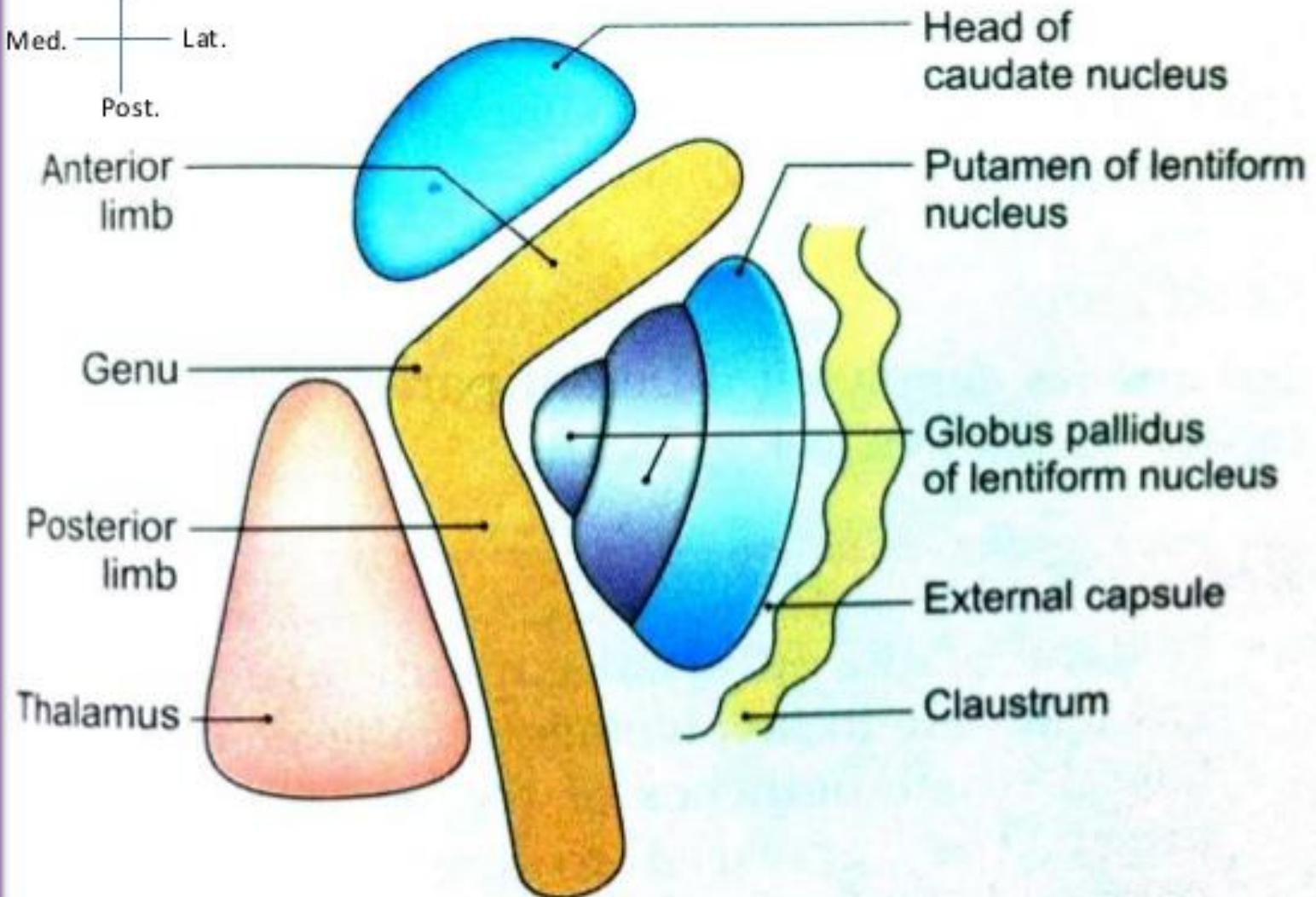


- The caudate nucleus is involved in motor processing and planning. It is also involved in memory storage (long-term), decision making, and planning.

Lentiform nucleus

- **Lies lateral to internal capsule**
- **Laterally, it is separated from the claustrum by fibers of external capsule.**
- **Superiorly, related to corona radiata.**
- **Inferiorly, related to sublenticular part of internal capsule.**
- **Coronal section- appears wedge shape.**

Ant.
Med. ——— Lat.
Post.

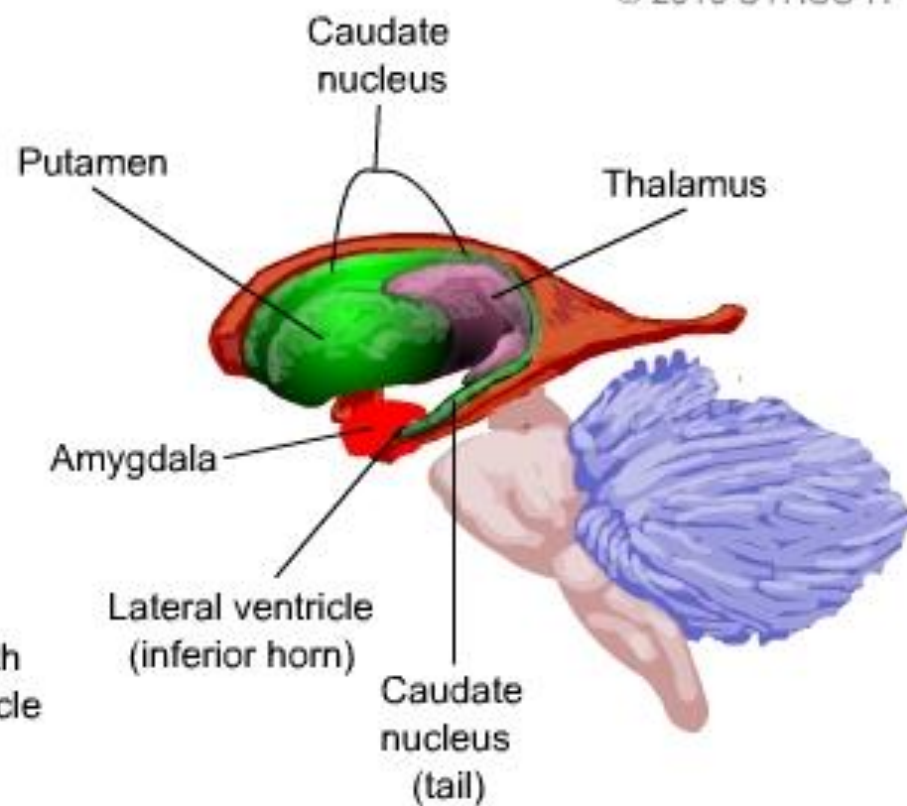
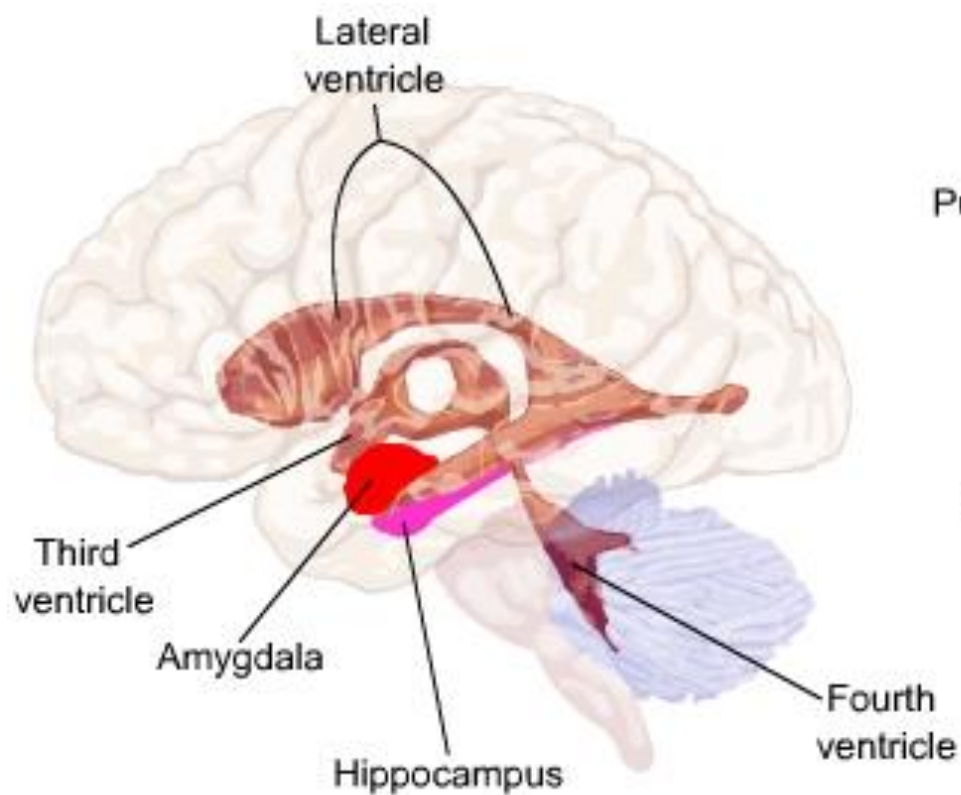


The putamen is involved in voluntary and involuntary motor control.

The globus pallidus is involved in the regulation of voluntary movement.

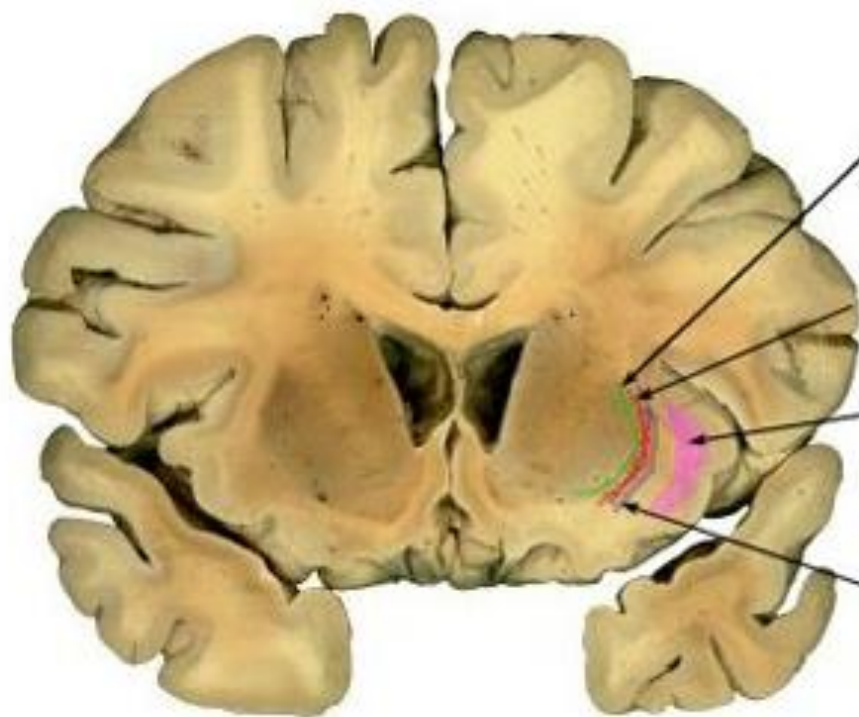
Amygdaloid nuclear complex

- **Also c/d amygdaloid body or amygdala lies in the temporal lobe of CH. Close to temporal pole.**
- **Related to anterior end of inferior horn of lateral ventricle.**



Clastrum

- **Thin lamina of grey matter that lies lateral to the lentiform nucleus.**
- **laterally, it is separated by a thin layer of white matter from the cortex of insula.**



External
Capsule

Clastrum

Insula

Extreme
Capsule

