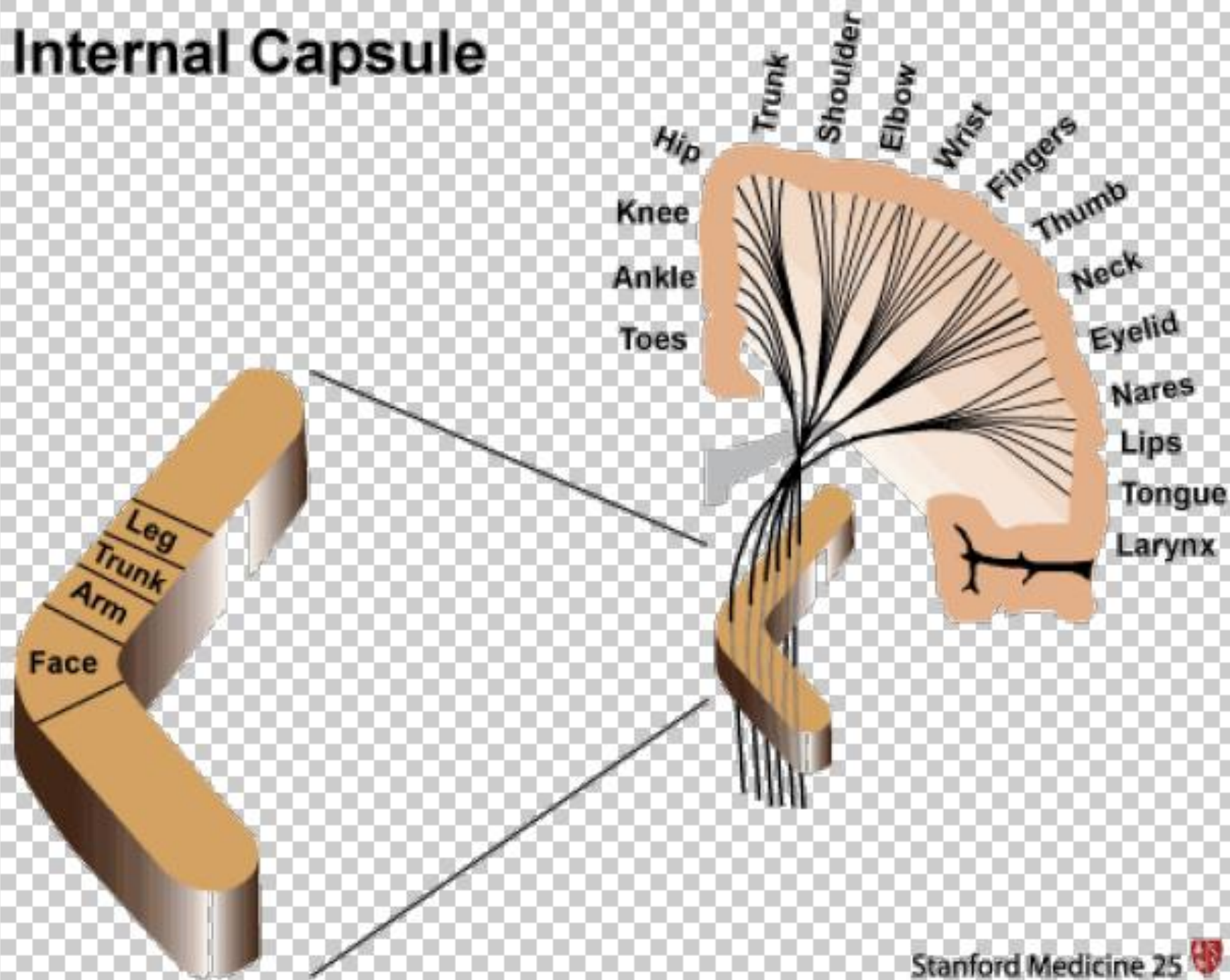
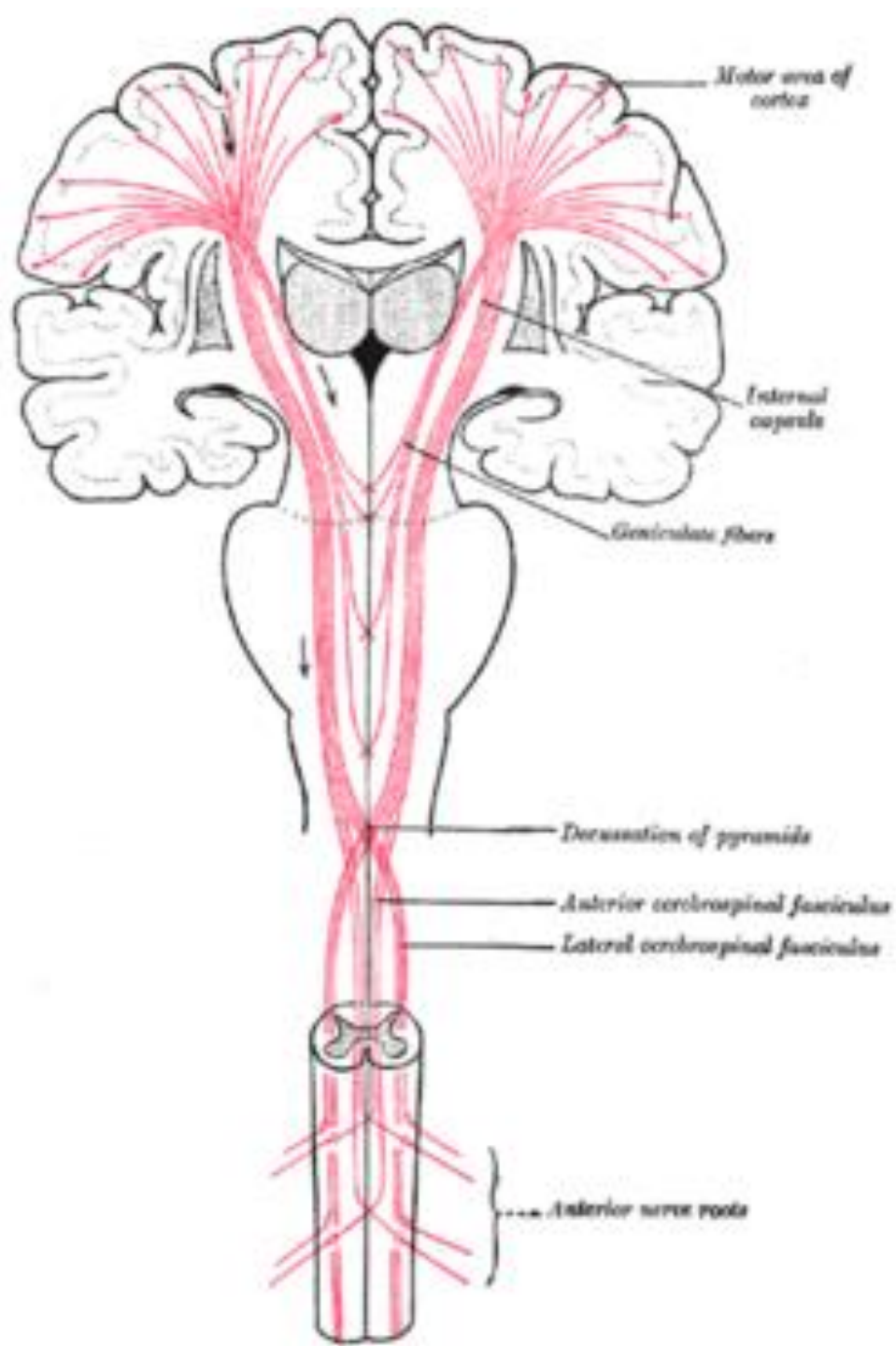


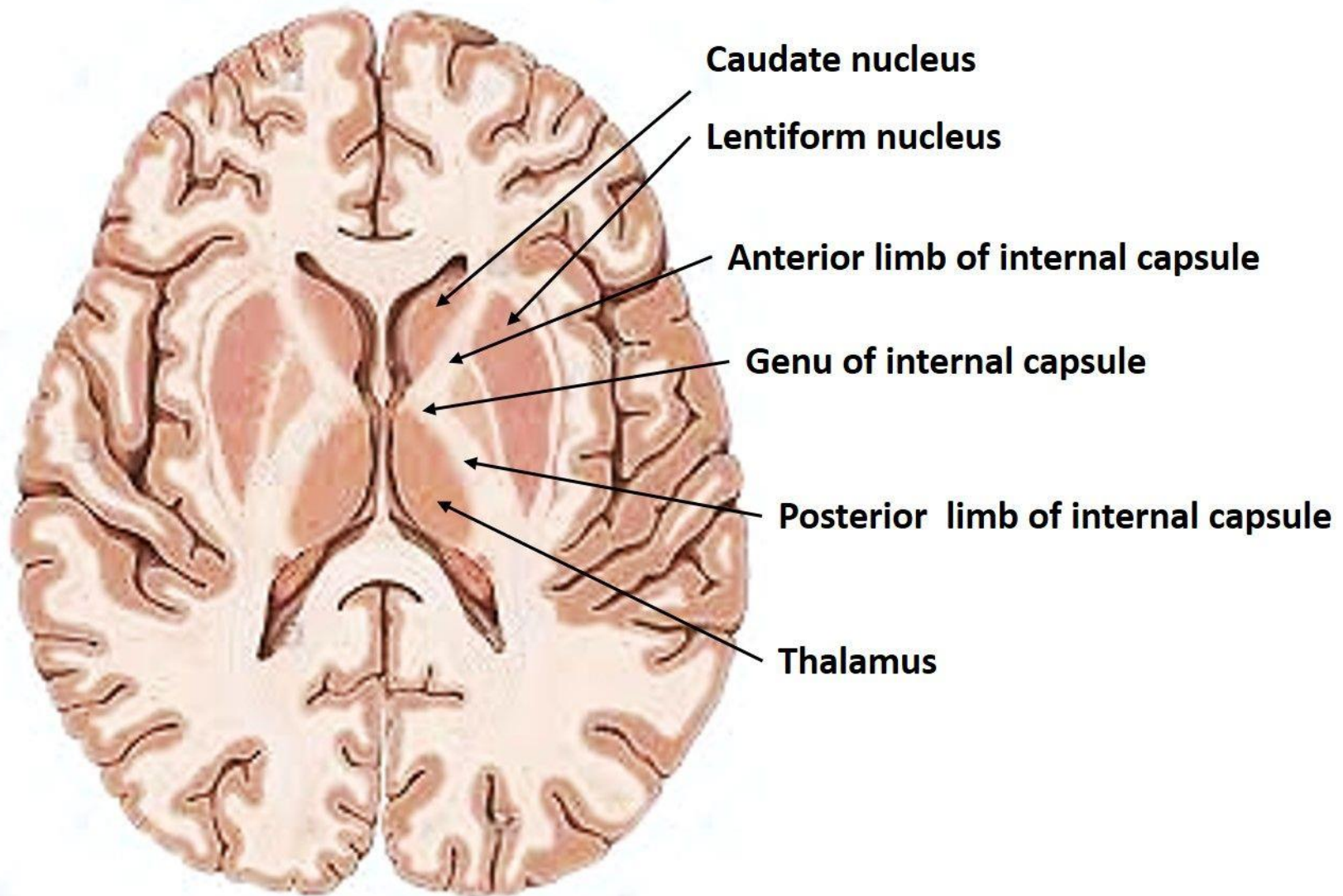
INTERNAL CAPSULE

Internal Capsule

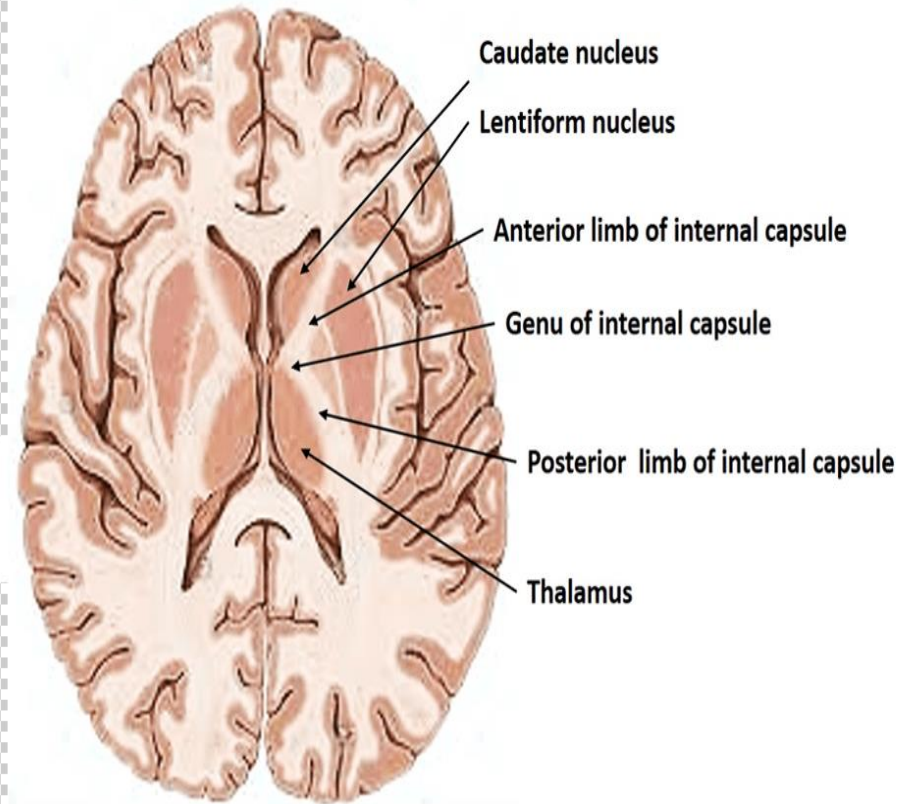
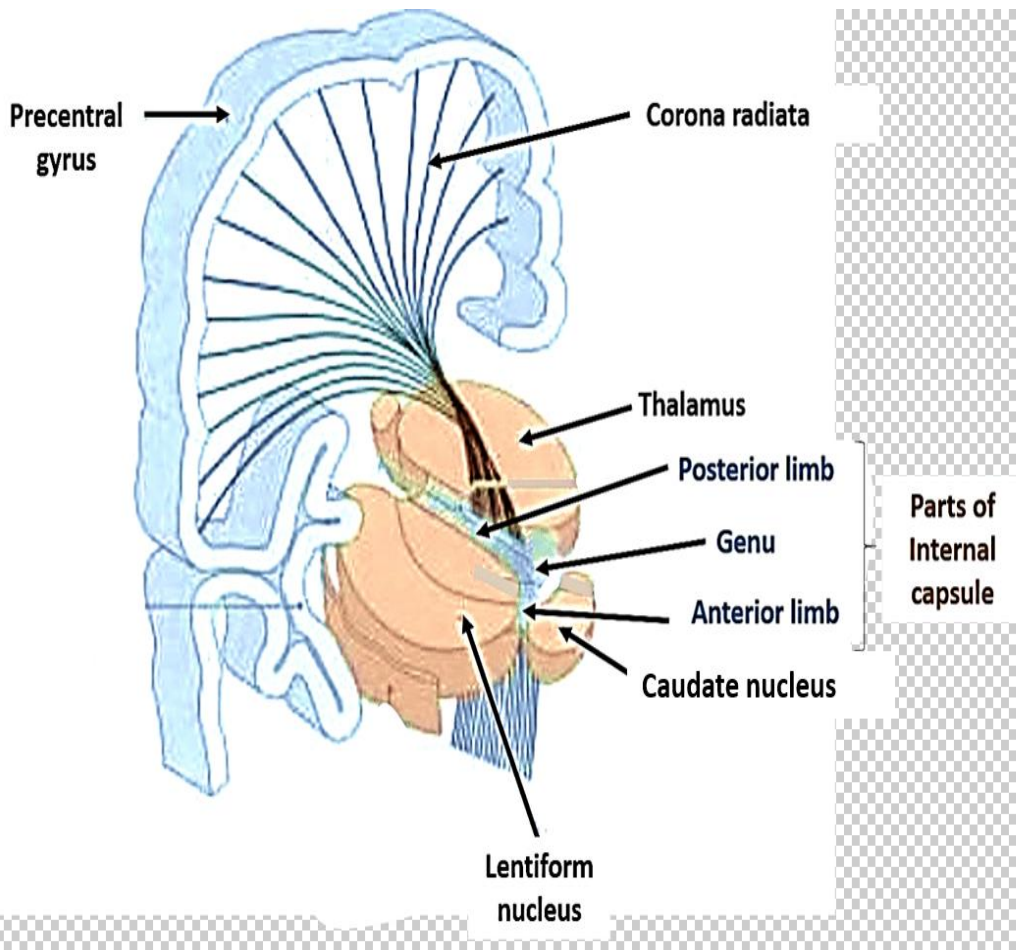


- **The internal capsule is a white matter structure situated in the inferomedial part of each cerebral hemisphere of the brain.**
- **The internal capsule is composed of all of the fibers going to and coming from the cerebral cortex which form a fan-shaped mass of fibers called the corona radiata. The fibers of the corona radiata converge towards the diencephalon forming a prominent, compact bundle of axons known as the internal capsule which links the cortex to other levels of the neuraxis.**



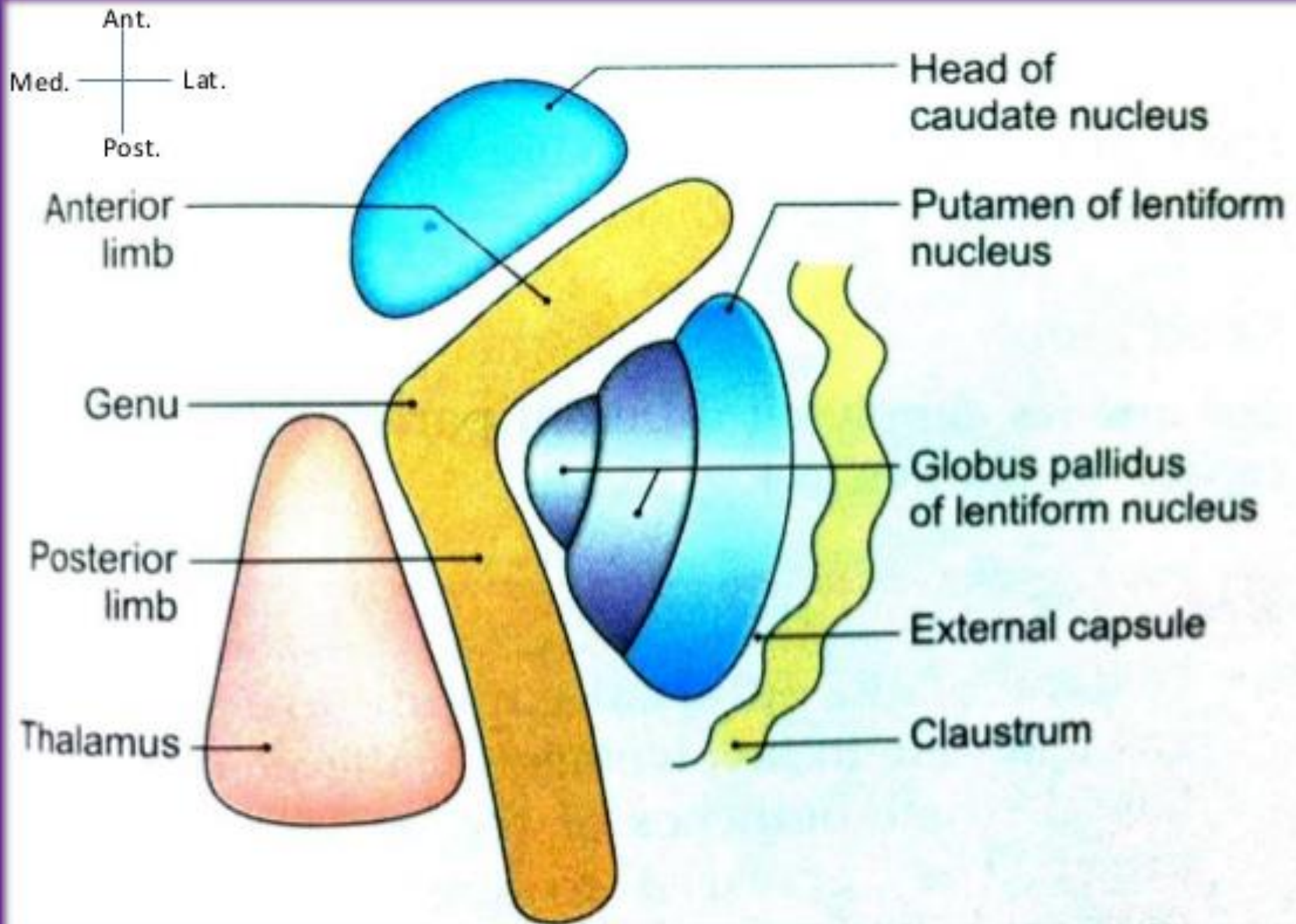


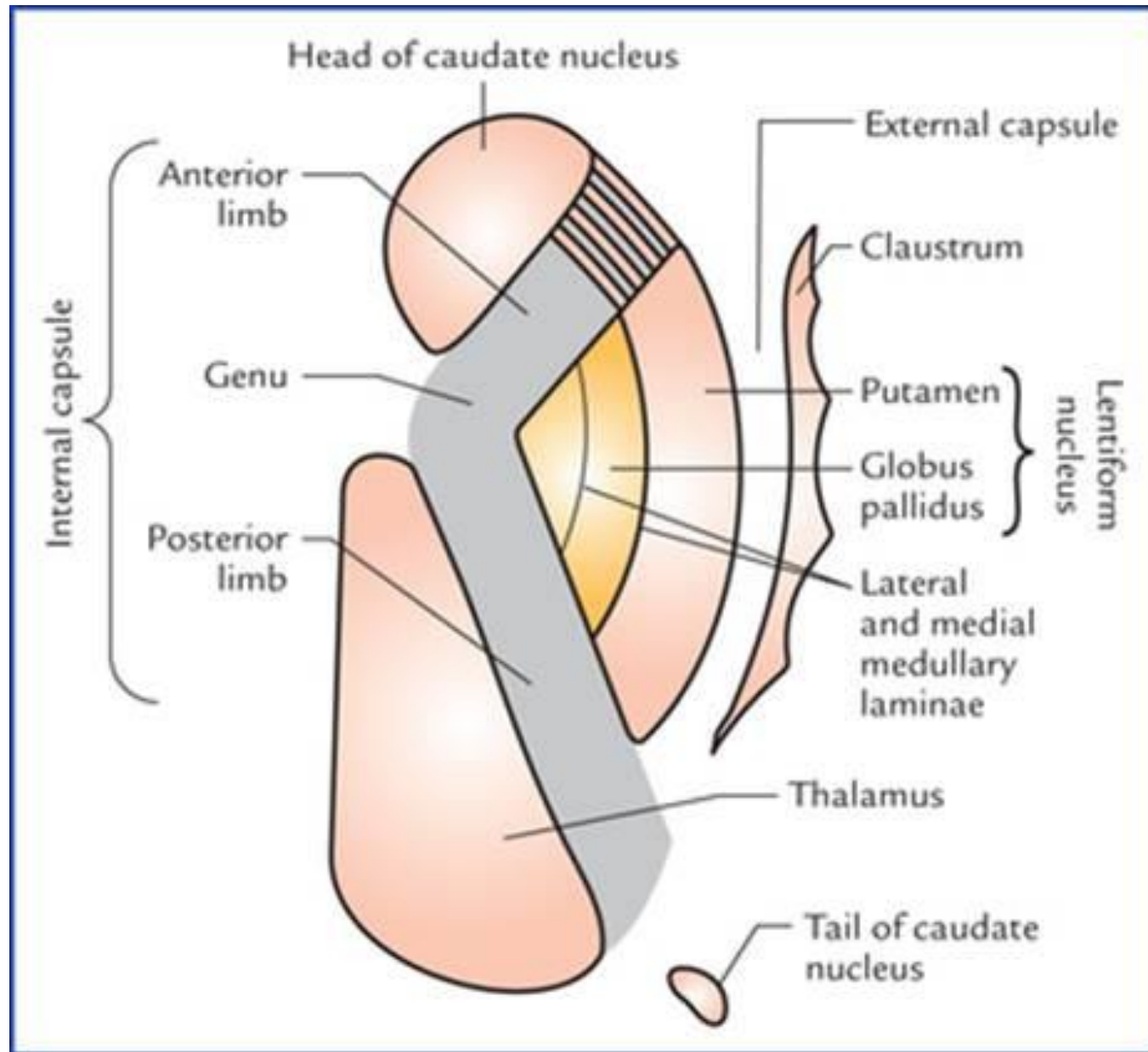
Horizontal Section of Cerebral Hemispheres



Horizontal Section of Cerebral Hemispheres

- It separates the caudate nucleus and the thalamus from the putamen and the globus pallidus.





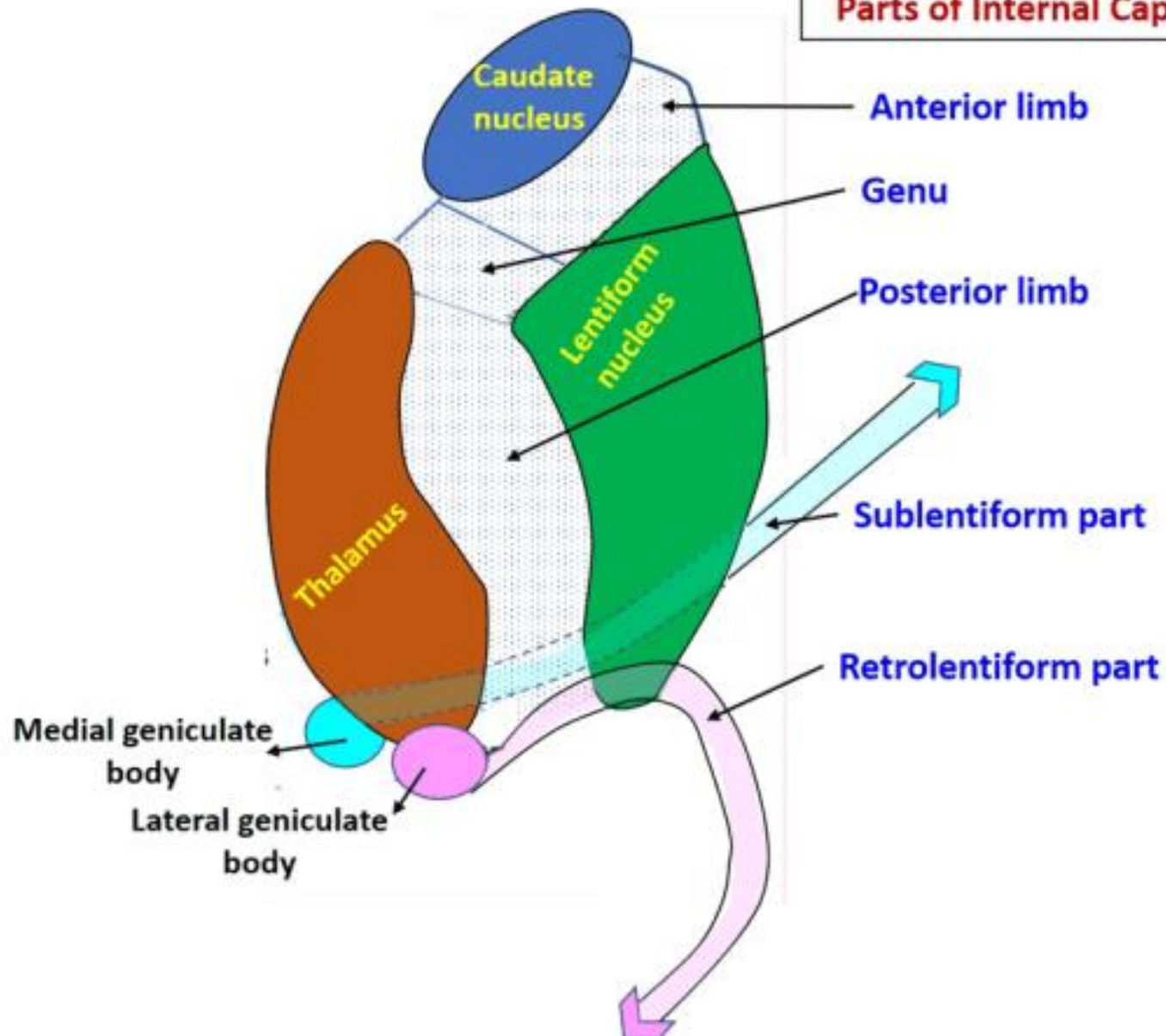
Structure

The internal capsule consists of following parts and is V-shaped when cut horizontally, in a transverse plane

- 1. Anterior limb- is positioned between the lentiform nucleus (comprised of the putamen and globus pallidus) and the head of the caudate nucleus.**
- 2. Posterior limb- is positioned between the lentiform nucleus and the thalamus.**
- 3. Genu- is the portion between the anterior and posterior limbs.**

- 4. Retrolenticular portion-** is behind to the lenticular nucleus and carries the optic radiation.
- 5. Sublenticular portion-** is below the lenticular nucleus and are tracts involved in the auditory pathway from the medial geniculate nucleus to the primary auditory cortex (Brodmann areas 41 and 42)

Parts of Internal Capsule



- **Fibers to and from the anterior part of the frontal lobe pass through- anterior limb**
- **Fibers to and from the posterior part of the frontal lobe and greater part of parietal lobe pass through- genu and posterior limb.**
- **Fibers to and from the temporal lobe- sublenticular part**
- **Fibers to and from the occipital lobe- retrolenticular part**

Blood supply-

Main arteries are- medial and lateral striate branches of the middle cerebral artery, recurrent branch of the anterior cerebral artery and anterior choroidal artery.

- The upper parts of both the *anterior and posterior limbs* and the *genu*- supplied by the lenticulostriate arteries, which are branches of middle cerebral artery.
- The inferior half of the *anterior limb*- is supplied via the recurrent branch of the anterior cerebral artery.

- The inferior half of the *posterior limb*- is supplied by the anterior choroidal artery, which is a branch of the internal carotid artery.
- Lower part of genu- direct from ICA, or posterior communicating A.
- Retrolentiform and sublenticiform- anterior choroidal A.