# ANATOMY

| Vascular supply of Important Brain Structures | |
|---|---|
| **Thalamus** | **Anterior (language-memory):** anterior thalamoperforating a = polar a (PCOM)<br>**Medial (arousal-memory):** posterior thalamoperforators (P1 and tip of basilar)<br>**Lateral (motor-sensory):** thalamogeniculate (P2)<br>**Posterior (visual):** Post Choroidal |
| **Internal Capsule** | Ant Limb: Medial striates (ACA) – Lateral striates (MCA)<br>Genu: ICA branches – Lateral striates (MCA)<br>Post Limb: Ant choroidal – Lateral striates (MCA) |
| **Caudate** | Medial portion: anterior choroidal<br>Lateral portion: recurrent artery of Hubner |
| **Putamen** | Lateral striates (MCA) |
| **Globus Pallidus** | Medial: anterior choroidal (ICA)<br>Lateral: Lateral striates (MCA) |

| Major blood vessels of the Brain | | |
|---|---|---|
| **Internal carotid** | | |
| 4 segments:<br>○ **Cervical**<br>○ **Intrapetrosal**<br>○ **Intracavernous**<br>○ **Supraclinoid** | Ophthalmic (first branch) | Retina |
| | Anterior Choroidal | Optic tract – internal capsule (post limb) – cerebral peduncle<br>Globus pallidus – LGB – hippocampus and amygdala |
| | Posterior Communicating | Thalamic perforators to anterior thalamus. |
| **Anterior Cerebral** | | |
| | Cortical | Medial and parasagittal aspect of the hemispheres |
| | Medial lenticulostriate | Basal ganglia, corpus callosum, and part of the fornix. |
| | Recurrent artery of Hubner | Head of the caudate, |
| **Middle Cerebral** | | |
| | Cortical | Lateral aspect of the cerebral hemisphere and anterior temporal lobe, |
| | Lateral lenticulostriate | Basal ganglia and internal capsule |
| **Vertebral** | | |
| | Anterior spinal | midline medulla and anterior spinal cord |
| | Posterior spinal | Lateral medulla and postero-lateral spinal cord |
| | Paramedian perforators | Paramedian part of medulla |
| | PICA | Lateral medulla and inferior part of cerebellum |
| **Basilar** | | |
| | Median/Paramedian perforators | Medial pons |
| | Circumferential | Lateral pons |
| | AICA | Inferior part of lateral pons |
| | SCA | Superior part of lateral pons |
| **Posterior Cerebral** | | |
| | Cortical | Occipital – Inferior temporal lobes (except uncus by MCA) – Splenium and inferior parietal lobule |
| | Perforating | Midbrain and thalamus |
| **Other important blood vessels** | | |
| **Internal auditory:** | | branch from AICA, lesion cause vertigo and deafness |