

Infographic #6: Neurovascular Distribution: The Brain

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Neurovascular Distribution: THE BRAIN



- Anterior cerebral artery
- Middle cerebral artery
- Posterior cerebral artery

Anterior Cerebral Artery (ACA):

- Supplies the medial surface of either hemisphere caudal to parieto-occipital fissure.
- All branches arch over hemisphere from medial to lateral.
- Supports somatomotor and somatosensory regions of the *foot, lower extremities, and hip areas.*

Middle Cerebral Artery (MCA):

- Passes laterally from origin and branches into *superior and inferior trunks.*
- Exits lateral sulcus to fan out. Supplies lateral surface of hemisphere superior and inferior to lateral fissure, parietal & temporal association cortices, somatomotor and somatosensory cortices, and the primary auditory cortex. Supports somatomotor and somatosensory to the *trunk and upper extremities.*

Posterior Cerebral Artery (PCA):

- Supplies the inferior surface of the temporal lobe and medial aspect of the occipital lobe.
- Perfuses regions within the *visual association cortex.*

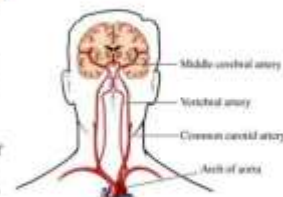
Supplying Arteries:

Common Carotid Artery:

- Provides around 80% of the brain's blood supply.
- Internal branch becomes MCA as it passes laterally from the Circle of Willis.

Vertebral Artery:

- Provides remaining 20% of the brain's blood supply.
- Left and right combine to form anterior spinal artery caudally.



References:

1. Cardiovascular system Anatomy: Core medical knowledge. Lumen (2021, April 16). <https://www.lumenlearning.com/course/cardiovascular-system/>
2. Fabelo, (plagiar). "ANATOMY & PHYSIOLOGY OF THE CENTRAL & PERIPHERAL NERVOUS SYSTEM" KJOM 2005, Lakeland College, Milton, MA, March 4, 2021.

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