

## Posterior Stroke

Posterior strokes can be more difficult to identify due to a wide range of non-specific presenting symptoms. More than a third of posterior circulation strokes are initially misdiagnosed and represents 20 – 25% of all ischemic strokes. Delayed or incorrect diagnosis results in inadequate acute care and poorer outcomes. Posterior circulation strokes have longer “door to needle” times for intravenous thrombolysis than anterior circulation strokes.

**Fast** → **B (balance) E (eyes) FAST** → Think “Five D's”:

Dizziness

Diplopia (double vision)

Dysarthria (difficulty speaking)

Dysphagia (difficulty swallowing)

Dystaxia (lack of coordination)

**Brain regions supplied by the posterior circulation and regional symptoms of posterior circulation ischemia**

### Other cortical regions (including medial temporal and parietal lobes)

Blood supply—Supplied by posterior cerebral artery in some but not all people  
Ischaemia symptoms—Neuropsychological such as memory deficits, alexia, acalculia, agraphia, prosopagnosia

### Thalamus

Blood supply—Posterior cerebral artery  
Ischaemia symptoms—Sensory loss or disturbance

### Occipital lobes

Blood supply—Posterior cerebral artery  
Ischaemia symptoms—Visual field defects

### Brainstem (midbrain, pons, medulla)

Blood supply—Basilar, superior cerebellar, and anterior inferior cerebellar arteries  
Ischaemia symptoms—Limb weakness, sensory loss, cranial nerve palsies; classical brainstem syndromes with crossed signs; “locked-in” syndrome; “top of the basilar” syndrome

### Cerebellum

Blood supply— Superior, anterior inferior, and posterior inferior cerebellar arteries  
Ischaemia symptoms—Vertigo, ataxia, nystagmus, and other cerebellar signs

