



Diagram of drainage area of the cerebral arteries and the possible complaints in case of failure

<i>Arteria carotis interna</i> Internal carotid artery	<i>Vertebrobasilar basin</i> <i>Arteriae vertebrales: vertebral arteries</i> Cerebellum (little brain) and truncus cerebri (brainstem)
Contralateral hemiparesis Loss of strength in opposite half of the body	Paresis in one or both halves of the body (Loss of strength or partial paralysis)
Contralateral sensory disorder (loss of sensation in the opposite half of the body)	Sensitivity disorder (loss of sensation) in one or both halves of the body
Homonymous hemianopia (visual field loss)	Homonymous hemianopia (visual field loss)
Neglect (failure to perceive the affected side) dysarthria (difficulty articulating)	Combinations of: • vertigo (dizziness) • dysarthria (difficulty articulating) • diplopia (double vision) • dysfagia (swallowing disorder) • dysfonia (voice change) • ataxia (coordination disorders) • balance disorder • nausea • nystagmus (wiggling eyes)
Dysarthria (difficulty articulating)	
Afasia (language disorder)	
Amaurosis fugax (temporary blindness in one eye)	

Draining area Arteria Cerebri media (ACM) middle cerebral artery Side of the frontal lobes / Parietal lobes Cortex of the temporal lobes .	Draining area Arteria Cerebri Anterior (ACA) anterior cerebral artery Frontal lobes Temporal lobes
Hemiplegia (paralysis) of the contralateral side, affecting the lower part of the face, arm and hand, while the leg is largely unaffected.	Contralateral leg weakness
Contralateral (opposite) sensory loss in similar areas	Sensory deficit
Contralateral homonymous hemianopia visual field disorders , affecting the similar half of the visual field in both eyes.	- Behavioral deviations may occur - Bladder incontinence may occur
Muscle tension too low Spasticity	Cognitive problems Emotions and behaviour Perseveration Executive functioning disorder: - Planning/organization - Memory - Impulse control - Solving a problem - Selective attention - Decision making
In general: - Word-finding problems - Agnosia	

<i>Draining area Basilar artery</i> brainstem occipital lobe cerebellum	<i>Draining Arteria posterior communicans</i> medial surface of the thalamus and the walls of the third ventricle
loss of consciousness/coma	Possible complaints: see this page
disturbed or irregular breathing	
locked-in syndrome	-
dysarthria	
dysphonia	
dysphagia	
compulsive laughing or compulsive crying (pseudobulbar affect).	

<i>Draining area Arteria cerebelli posterior inferior (PICA)</i> Cerebellum (little brain), Plexus chorioides of the fourth ventricle and the dorsolateral part of the medulla oblongata	<i>Draining area Arteria cerebelli posterior (ACP) posterior cerebral artery</i> Occipital lobes Dorsale side Temporal lobes
Acute dizziness (vertigo) Nausea Eyes wiggling back and forth (nystagmus): due to damage to the vestibular nuclei. on the same side of the injury (ipsilateral) half-sided coordination problems (hemiataxia). on the same side of the injury (ipsilateral) Horner syndrome: - miosis (contracted pupil) - ptosis (drooping of the upper eyelid)	Homonymous hemianopia (visual field loss) in a quadrant or half of the eyes Cortical blindness: blindness with intact pupillary reflexes to light Often the person does not fully realize the blindness. Faceblindness problems (prosopagnosie).
	Acute memory problems due to damage to the medial temporal lobe containing the hippocampus: especially in infarctions of the dominant hemisphere Behavioural problems

