

## Glossary

AD	Alzheimer's disease, a type of dementia typically associated with accumulation of amyloid and tau proteins in the brain
AQP4, Aquaporin 4	aquaporin 4: a molecule residing on astrocyte endfeet usually facing the vessel which is thought to assist the movement of fluid through the interstitial space.
BBB	Blood-brain barrier, a structure composed of endothelial cells, glial cells and membranes that controls entry from the brain vasculature into the brain interstitium and exit back into the vasculature.
BMB or CMB	Brain microbleed or cerebral microbleed, a small, <5mm, sometimes <10mm collection of blood found in deep and lobar tissues; may be associated with hypertension or CAA and is part of the spectrum of SVD.
CAA	Cerebral amyloid angiopathy, a disorder where amyloid- $\beta$ protein is deposited in arterioles and periarteriolar spaces, associated with BMB, siderosis, ischaemic and haemorrhagic stroke
CSF	cerebrospinal fluid, a liquid which bathes the brain, exchanges nutrients, supports the brain in the cranial cavity and cushions against trauma.
dementia	A neurological syndrome accompanied by neurodegenerative pathology where there is loss of memory, cognitive function and eventually systemic organ failure
FLAIR	Fluid attenuated inversion recovery, a type of MRI sequence that is useful for demonstrating white matter hyperintensities
Gd	Gadolinium, a paramagnetic contrast agent used to demonstrate blood vessels and blood-brain barrier
glymphatic:	a system of fluid drainage from the brain that uses pathways along arterioles, venules and capillaries
ISF	interstitial fluid, the fluid between the cells and membranes in the brain parenchyma
lacune	A small hole in the deep grey or white matter, often the sequelae of a small deep lacunar infarct but commonly found in persons with no prior symptoms; increases with age, associated with cognitive decline, part of the spectrum of small vessel disease.
MCI	Mild cognitive impairment, a stage of cognitive impairment that falls short of a diagnosis of dementia

MRI	magnetic resonance imaging, a powerful method to image the brain structure and function, including vascular function, in vivo
Neurogliovascular unit:	a grouping of cells including endothelial cells, astrocytes, neurons that controls blood flow and nutrient exchange in the brain
OMT	optimum mass transport, a method of analysing the passage of a fluid (eg contrast agent) through a volume, eg the intracranial cavity
PM	post mortem: examination of tissues after death of a person
SVD	Small vessel disease, a range of features seen on imaging including WMH, lacunes, microbleeds, PVS, which are associated with stroke, cognitive impairment, mobility problems
SWI	Susceptibility-weighted imaging, on MRI, is sensitive to blood and magnetic mineral deposits
T1, T2, T2*	Types of MRI scan that show different tissue features
VaD	Vascular dementia, a dementia attributed mainly to vascular causes, although in practice mixed dementias are common and there is a significant vascular dysfunction early in AD.
WMH	White matter hyperintensities. Lesions which appear on brain imaging or at post-mortem that indicate damage to white matter and are part of the spectrum of small vessel disease.