



McDonald diagnostic criteria

The McDonald criteria were devised in 2001 by a team led by Professor Ian McDonald, and were most recently revised in 2010. The criteria are used to seek to establish evidence of damage to the central nervous system (CNS) comprising of the brain and spinal cord.

The criteria looks at the evidence of damage in two ways: is the damage 'disseminated in time' – meaning, is there evidence of damage in the CNS at different dates and, is the damage 'disseminated in space' – meaning, is the damage in different parts of the CNS.

The MRI, together with the lumbar puncture in some cases, provide the evidence to be reviewed alongside the McDonald criteria to diagnose MS.

The criteria states that an attack or relapse must have lasted for at least 24 hours, and must be neurological in nature that is typical of what is seen with MS. There must be at least 30 days between the first attack and the subsequent attack to be counted as 2 separate events. These attacks may be seen clinically or on the MRI.



Recommended Diagnostic Criteria for Multiple Sclerosis		
Clinical Presentation	Objective Lesions	Additional data required to make diagnosis
2 or more attacks	2 or more	None; clinical evidence will suffice (additional evidence desirable but must be consistent with MS)
2 or more attacks	1	Dissemination in <u>space</u> by MRI <u>Or</u> up to two MRI detected lesions consistent with MS plus positive CSF <u>Or</u> await a further clinical attack involving different site to suggest dissemination in <u>space</u>
1 attack	2 or more	Dissemination in <u>time</u> by MRI <u>Or</u> second clinical attack
1 attack	1	Dissemination in <u>space</u> by MRI <u>Or</u> up to two MRI lesions consistent with MS plus positive CSF and dissemination in <u>time</u> demonstrated by MRI (i.e. new lesion seen since the original MRI) <u>Or</u> second clinical attack
0 (neurological progression is suggestive of MS. This is typical for a diagnosis of primary progressive MS)	1	Positive CSF and dissemination in <u>space</u> by MRI <u>Or</u> abnormal VEP plus abnormal MRI and dissemination in <u>time</u> by MRI <u>Or</u> continued progression for one year either retrospectively, or ongoing

Source: Recommended Diagnostic Criteria for MS: 2010 revisions to the McDonald criteria: *Annals of Neurology* 2011