Preserving cognitive function in multiple sclerosis (MS)

Cognitive impairment can have a substantial negative impact on the lives of people living with MS (PLwMS), affecting their quality of life, employability and social interactions[1,2]. Yet, changes in cognitive symptoms are often overlooked and underreported[1].

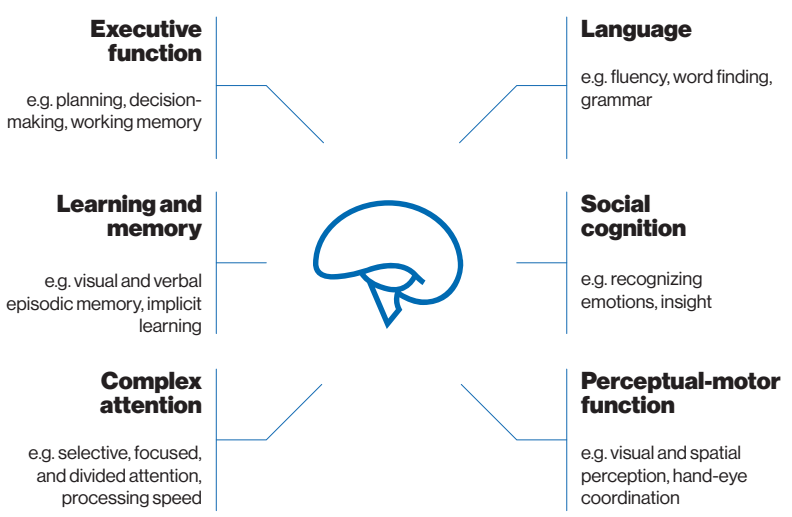
The facts: Cognitive impairment is...

... a cognitive performance below a certain threshold assessed by specific tests[3]
... the lead predictor of occupational disability[4]

40-70%
of PLwMS experience **cognitive decline**[1,3]

50-75%
of PLwMS are **unemployed within 10 years of diagnosis**[4]

Cognitive functions affected by MS[3,5]



The functions most affected* by MS are:

15-50% INFORMATION PROCESSING SPEED

15-60% WORKING MEMORY

15-80% VERBAL EPISODIC MEMORY

20-75% VISUAL EPISODIC MEMORY

*Frequency in %

Underlying mechanisms[6,7]

The mechanisms underlying cognitive decline in MS are not yet fully understood.

If we look at the brain as a network, damage to gray and white matter leads to a network collapse. While this damage is rather low in early phases of MS, it accumulates over time causing the efficiency of the network to drop. This eventually results in a network collapse, leading to cognitive impairment. The accumulated damage cannot be reversed, but it is possible to slow down cognitive decline.

How can patients preserve cognitive function?[7,8]

Keeping a healthy and active lifestyle has been shown to promote brain maintenance and can play an important role in preserving cognitive function. Slowing down cognitive decline may be possible through:

PHYSICAL EXERCISE | MENTALLY ACTIVE LIFESTYLE | MANAGING RISK FACTORS e.g. STRESS | EARLY INTERVENTION | CERTAIN DISEASE-MODIFYING TREATMENTS

References
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