

White Matter Disease

FACT SHEET



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What is white matter disease?

White matter disease is a progressive disorder caused by age-related decline in the part of the nerves (the white matter) that connect different areas of brain to each other and to the spinal cord. This disorder can result in imbalance and lead to problems with mobility in older age. It is usually diagnosed when no other causes for balance problems can be found, and when an MRI of the brain shows specific changes to the white matter. It is believed that people who have risk factors for heart disease (high blood pressure, high cholesterol, smoking) also have a greater risk for developing white matter disease. Controlling these risk factors by taking medication and quitting smoking appear to slow the progression of the disease.

People who have more advanced white matter disease walk slower, have worse balance, and have more falls compared with people with milder white matter disease. They also may have more difficulty performing two or more activities at once, such as walking while carrying on a conversation. They may also be prone to mood changes such as depression.

While there is no known cure for white matter disease, treatments can help to manage the symptoms. Physical therapy may address the balance and walking problems encountered in older adults with white matter disease. This can improve overall function and health.

References:

Kuo, H.K. and L.A. Lipsitz, Cerebral white matter changes and geriatric syndromes: is there a link? *Journals of Gerontology Series A-Biological Sciences & Medical Sciences*, 2004. **59**(8): p. 818-26.

Guttmann, C.R., et al., White matter abnormalities in mobility-impaired older persons. *Neurology*, 2000. **54**(6): p. 1277-83.

Wolfson, L., et al., Accrual of MRI white matter abnormalities in elderly with normal and impaired mobility.[see comment]. *Journal of the Neurological Sciences*, 2005. **232**(1-2): p. 23-7.



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