

Gait and Cognition: A Complementary Approach to Understanding Brain Function and the Risk of Falling

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| R sum  en anglais | Until recently, clinicians and researchers have performed gait assessments and cognitive assessments separately when evaluating older adults, but increasing evidence from clinical practice, epidemiological studies, and clinical trials shows that gait and cognition are interrelated in older adults. Quantifiable alterations in gait in older adults are associated with falls, dementia, and disability. At the same time, emerging evidence indicates that early disturbances in cognitive processes such as attention, executive function, and working memory are associated with slower gait and gait instability during single- and dual-task testing and that these cognitive disturbances assist in the prediction of future mobility loss, falls, and progression to dementia. This article reviews the importance of the interrelationship between gait and cognition in aging and presents evidence that gait assessments can provide a window into the understanding of cognitive function and dysfunction and fall risk in older people in clinical practice. To this end, the benefits of dual-task gait assessments (e.g., walking while performing an attention-demanding task) as a marker of fall risk are summarized. A potential complementary approach for reducing the risk of falls by improving certain aspects of cognition through nonpharmacological and pharmacological treatments is also presented. Untangling the relationship between early gait disturbances and early cognitive changes may be helpful in identifying older adults at risk of experiencing mobility decline, falls, and progression to dementia. J Am Geriatr Soc 60: 2127-2136, 2012. |

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