

**Supplementary Figure S2.** Cut points of gait speed at usual pace and risk of adverse outcomes found in the selected studies and systematic reviews/meta-analysis.



<1.3m/s	Hip fracture [1]; Depressive symptoms [2]; CVD risk [3]; All-cause mortality [3,4]
<1.2m/s	Mobility disability [5]; IADL [6]; All-cause mortality [6]
<1.1m/s	Mobility disability [7,8]; IADL [9,10]; CVD risk [11]; All-cause mortality [11–13]; Other-causes mortality [11]
<1.0m/s	Mobility disability [14–16]; IADL [16,17]; Cognitive decline/impairment/Alzheimer [16, 18]; CVD risk [4]; Hospitalization/Institutionalization [15,16]; All-cause mortality [16]; Other-causes mortality [19]
<0.9m/s	IADL [9]; CVD risk [11]; All-cause mortality [11]; Other-causes mortality [11]
<0.8m/s	Falls [20]; IADL [21]; Frailty [22]; Cognitive decline/Dementia [23, 24]; Depressive symptoms [25]; CVD risk [21]; Hospitalization [26]; All-cause mortality [22,23,26,27]
<0.7m/s	Falls [16,28,29]; Cognitive decline [30]; All-cause mortality [28]
<0.6m/s	Falls [31,32]; IADL [15]
<0.5m/s	Depressive symptoms [33]
<0.4m/s	Hip fracture [34]

CVD, Cardiovascular disease risk; IADL, Instrumental Disability in Daily Activities.

## REFERENCES

1. Wihlborg A, Englund M, Akesson K, Gerdhem P. Fracture predictive ability of physical performance tests and history of falls in elderly women: a 10-year prospective study. *Osteoporosis International*. 2015;26(8):2101-9.
2. Briggs R, Carey D, Claffey P, McNicholas T, Donoghue O, Kennelly SP, et al. Do Differences in Spatiotemporal Gait Parameters Predict the Risk of Developing Depression in Later Life? *Journal of the American Geriatrics Society*. 2019;67(5):1050-6.
3. Georgiopoulou VV, Kalogeropoulos AP, Chowdhury R, Binongo JNG, Bibbins-Domingo K, Rodondi N, et al. Exercise Capacity, Heart Failure Risk, and Mortality in Older Adults: The Health ABC Study. *American Journal of Preventive Medicine*. 2016;52:144-53.
4. Niiranen TJ, Enserro DM, Larson MG, Vasan RS. Multisystem Trajectories Over the Adult Life Course and Relations to Cardiovascular Disease and Death. *Journals of Gerontology Series a-Biological Sciences and Medical Sciences*. 2019;74(11):1778-85.
5. Deshpande N, Metter EJ, Guralnik J, Bandinelli S, Ferrucci L. Predicting 3-Year Incident Mobility Disability in Middle-Aged and Older Adults Using Physical Performance Tests. *Archives of Physical Medicine and Rehabilitation*. 2013;94:994-7.
6. Abe T, Kitamura A, Taniguchi Y, Amano H, Seino S, Yokoyama Y, et al. Pathway from gait speed to incidence of disability and mortality in older adults: A mediating role of physical activity. *Maturitas*. 2019;123:32-6.
7. Doi T, Nakakubo S, Tsutsumimoto K, Kim MJ, Kurita S, Ishii H, et al. Spatio-temporal gait variables predicted incident disability. *Journal of Neuroengineering and Rehabilitation*. 2020;17(1).
8. Rosso AL, Metti AL, Faulkner K, Brach JS, Studenski SA, Redfern M, et al. Associations of Usual Pace and Complex Task Gait Speeds With Incident Mobility Disability. *Journal of the American Geriatrics Society*. 2019;67(10):2072-6.
9. Makizako H, Shimada H, Doi T, Tsutsumimoto K, Lee S, Hotta R, et al. Cognitive Functioning and Walking Speed in Older Adults as Predictors of Limitations in Self-Reported Instrumental Activity of Daily Living: Prospective Findings from the Obu Study of Health Promotion for the Elderly. *International Journal of Environmental Research and Public Health*. 2015;12:3002-13.
10. Adachi T, Kamiya K, Kono Y, Iwatsu K, Shimizu Y, Honda I, et al. Estimation of reduced walking speed using simple measurements of physical and psychophysiological function in community-dwelling elderly people: a cross-sectional and longitudinal study. *Aging Clinical and Experimental Research*. 2019;31:59-66.
11. Nofuji Y, Shinkai S, Taniguchi Y, Amano H, Nishi M, Murayama H, et al. Associations of Walking Speed, Grip Strength, and Standing Balance With Total and Cause-Specific Mortality in a General Population of Japanese Elders. *Journal of the American Medical Directors Association*. 2016;17.
12. Elbaz A, Sabia S, Brunner E, Shipley M, Marmot M, Kivimaki M, et al. Association of walking speed in late midlife with mortality: results from the Whitehall II cohort study. *Age*. 2013;35:943-52.

13. Idland G, Pettersen R, Avlund K, Bergland A. Physical performance as long-term predictor of onset of activities of daily living (ADL) disability: A 9-year longitudinal study among community-dwelling older women. *Archives of Gerontology and Geriatrics*. 2013;56:501-6.
14. Brach JS, Wert D, VanSwearingen JM, Newman AB, Studenski SA. Use of Stance Time Variability for Predicting Mobility Disability in Community-Dwelling Older Persons: A Prospective Study. *Journal of Geriatric Physical Therapy*. 2012;35:112-7.
15. Cavanaugh EJ, Richardson J, McCallum CA, Wilhelm M. The Predictive Validity of Physical Performance Measures in Determining Markers of Preclinical Disability in Community-Dwelling Middle-Aged and Older Adults: A Systematic Review. *Physical Therapy*. 2018;98(12):1010-21.
16. van Kan GA, Rolland Y, Andrieu S, Bauer J, Beauchet O, Bonnefoy M, et al. GAIT SPEED AT USUAL PACE AS A PREDICTOR OF ADVERSE OUTCOMES IN COMMUNITY-DWELLING OLDER PEOPLE AN INTERNATIONAL ACADEMY ON NUTRITION AND AGING (IANA) TASK FORCE. *Journal of Nutrition Health & Aging*. 2009;13(10):881-9.
17. Wang DXM, Yao J, Zirek Y, Reijnierse EM, Maier AB. Muscle mass, strength, and physical performance predicting activities of daily living: a meta-analysis. *Journal of Cachexia Sarcopenia and Muscle*. 2020;11(1):3-25.
18. Tian Q, Resnick SM, Studenski SA, Ferrucci L. Lap Time Variability From a 400-m Walk Is Associated With Future Mild Cognitive Impairment and Alzheimer's Disease. *Journal of the American Medical Directors Association*. 2019;20(12):1535-+.
19. Looker AC. Dysmobility syndrome and mortality risk in US men and women age 50 years and older. *Osteoporosis International*. 2015;26:93-102.
20. Callisaya ML, Ayers E, Barzilai N, Ferrucci L, Guralnik JM, Lipton RB, et al. Motoric Cognitive Risk Syndrome and Falls Risk: A Multi-Center Study. *Journal of Alzheimers Disease*. 2016;53:1043-52.
21. Heiland EG, Welmer AK, Wang R, Santoni G, Fratiglioni L, Qiu CX. Cardiovascular Risk Factors and the Risk of Disability in Older Adults: Variation by Age and Functional Status. *Journal of the American Medical Directors Association*. 2018;20:208-+.
22. Jung HW, Jang IY, Lee CK, Yu SS, Hwang JK, Jeon C, et al. Usual gait speed is associated with frailty status, institutionalization, and mortality in community-dwelling rural older adults: a longitudinal analysis of the Aging Study of Pyeongchang Rural Area. *Clinical Interventions in Aging*. 2018;13:1079-89.
23. Hoogendijk EO, Rijnhart JJM, Skoog J, Robitaille A, van den Hout A, Ferrucci L, et al. Gait speed as predictor of transition into cognitive impairment: Findings from three longitudinal studies on aging. *Experimental Gerontology*. 2020;129.
24. Grande G, Triolo F, Nuara A, Welmer AK, Fratiglioni L, Vetrano DL. Measuring gait speed to better identify prodromal dementia. *Experimental Gerontology*. 2019;124.

25. Veronese N, Stubbs B, Trevisan C, Bolzetta F, De Rui M, Solmi M, et al. Poor Physical Performance Predicts Future Onset of Depression in Elderly People: Progetto Veneto Anziani Longitudinal Study. *Physical Therapy*. 2017;97:659-68.
26. Zucchelli A, Vetrano DL, Grande G, Calderon-Larranaga A, Fratiglioni L, Marengoni A, et al. Comparing the prognostic value of geriatric health indicators: a population-based study. *Bmc Medicine*. 2019;17(1).
27. Blain H, Carriere I, Sourial N, Berard C, Favier F, Colvez A, et al. Balance and walking speed predict subsequent 8-year mortality independently of current and intermediate events in well-functioning women aged 75 years and older. *Journal of Nutrition Health & Aging*. 2010;14:595-600.
28. Sanders JB, Bremmer MA, Comijs HC, van de Ven PM, Deeg DJH, Beekman ATF. Gait Speed and Processing Speed as Clinical Markers for Geriatric Health Outcomes. *American Journal of Geriatric Psychiatry*. 2016;25:374-85.
29. Luukinen H, Koski K, Laippala P, Kivela SL. PREDICTORS FOR RECURRENT FALLS AMONG THE HOME-DWELLING ELDERLY. *Scandinavian Journal of Primary Health Care*. 1995;13(4):294-9.
30. Stijntjes M, Aartsen MJ, Taekema DG, Gussekloo J, Huisman M, Meskers CGM, et al. Temporal Relationship Between Cognitive and Physical Performance in Middle-Aged to Oldest Old People. *Journals of Gerontology Series a-Biological Sciences and Medical Sciences*. 2017;72:662-8.
31. Quach L, Galica AM, Jones RN, Procter-Gray E, Manor B, Hannan MT, et al. The Nonlinear Relationship Between Gait Speed and Falls: The Maintenance of Balance, Independent Living, Intellect, and Zest in the Elderly of Boston Study. *Journal of the American Geriatrics Society*. 2011;59:1069-73.
32. Doi T, Hirata S, Ono R, Tsutsumimoto K, Misu S, Ando H. The harmonic ratio of trunk acceleration predicts falling among older people: results of a 1-year prospective study. *Journal of Neuroengineering and Rehabilitation*. 2013;10.
33. Sanders JB, Bremmer MA, Deeg DJH, Beekman ATF. Do Depressive Symptoms and Gait Speed Impairment Predict Each Other's Incidence? A 16-Year Prospective Study in the Community. *Journal of the American Geriatrics Society*. 2012;60:1673-80.
34. Kauppi M, Stenholm S, Impivaara O, Maki J, Heliövaara M, Jula A. Fall-related risk factors and heel quantitative ultrasound in the assessment of hip fracture risk: a 10-year follow-up of a nationally representative adult population sample. *Osteoporosis International*. 2014;25:1685-95.