There is significant evidence to suggest that people with decreased walking tolerance, strength, and balance are dying sooner. There is also significant evidence that sitting time alone increases risk of death.

Walking speed is a powerful indicator of functional status for patients with varying diagnoses; however, it is not routinely assessed by the medical community.

The functional requirements for community living aging adults are identified as follows:

1. 1203 feet (366.7 meters) to complete an errand in the community
2. Gait speed of 1.2 m/s or 2.68 mph
3. Need to carry an average of 6.7 lb. package

A significant increase in mortality existed among subjects with increased time to perform the 400 meter walk test. For each additional minute of longer performance time, risk of death increased 35%.

Walking speed, walking less than 400 meters, and decreased lower extremity strength are strong predictors for nursing home placement. Loss of leg strength is the strongest single predictor for subsequent institutionalization, stronger than disease diagnosis.

A change in gait speed by .10 m/s (.22 mph) has been shown to be a meaningful change in community dwelling older adults, hospitalized male veterans, and patients with a hip fracture. A 2011 study in the Journal of American Medical Association found that a change of .10 m/s (.33 mph) increased survival over a 10 year period.
Mythbusters

**Myth:** There is not a reliable, valid, sensitive and specific tool to measure gait velocity or walking speed.

**Fact:** The figure displays a suggested reliable, inexpensive method to calculate gait velocity by using the 10 meter walk test. Set up a 20 meter path in your clinic, with the central 10 meters being the timing area. Start your patient at the beginning of the 20 meter line and ask them to walk “at a comfortable pace” to the end of the line. Using a stopwatch, time from when the patient’s leading limb (toe) crosses the first 10 meter line until the leading limb crosses the second line demarcating the end of the 10 meter timed area. This gives the patient 5 meters on either side to accelerate and decelerate respectively.  

**Myth:** There is no predictive value in assessment of walking speed.

**Fact:** Gait speed correlates well with functional ability, future health status and the patient’s confidence in balance.

- **< 0.6 m/s (1.34 mph)** Increased risk for dependence in ADL and risk of hospitalization (seniors)
- **< 1.0 m/s (2.24 mph)** Need intervention to reduce fall risk (seniors)
- **> 1.0 m/s (2.24 mph)** Independent in ADLs, more likely to be discharged home after a hospitalization and less likely to be hospitalized (seniors)

**References**


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