

## Introduction

The number of older adults using walkers and canes is growing rapidly.<sup>1</sup>

Physical therapists frequently instruct their patients to use the same device during outcomes testing to maximize measurement consistency, assuming that a walker or cane influences performance.

However, the actual effect of using a walker or cane is unclear.

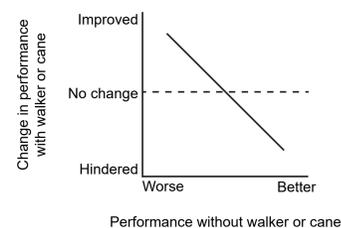
## Objective

To measure the effect of using a walker or cane on performance for the following outcome measures:

10 Meter Walk Test (10MWT)  
6 Minute Walk Test (6MWT)  
Timed Up and Go (TUG)

### Hypothesis:

Older adults with relatively worse outcome measure performance would benefit from their walker or cane (improved score), whereas older adults with relatively better performance would be hindered.



## Participants

Participants	n=14
Age (years)	81.5 (9.2)
Sex (n)	5 Female / 9 Male
Berg Balance Scale	41.1 (6.4)
Mini-Mental State Exam	22.5 (6.6)
Walker users	n=8
Cane users	n=6

Mean (SD) where applicable

## Methods

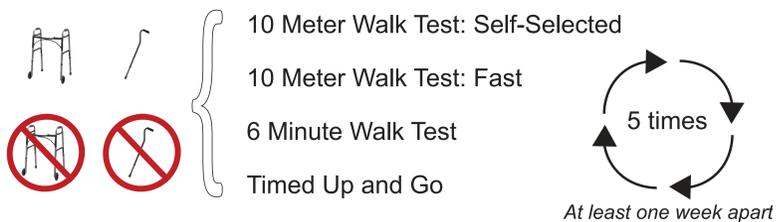
### Inclusion Criteria

Age 60 or older  
Uses a walker or cane  
Able to walk 10 meters without a walker or cane

### Exclusion Criteria

Requires physical assistance to walk  
Increase in pain when walking without a walker or cane

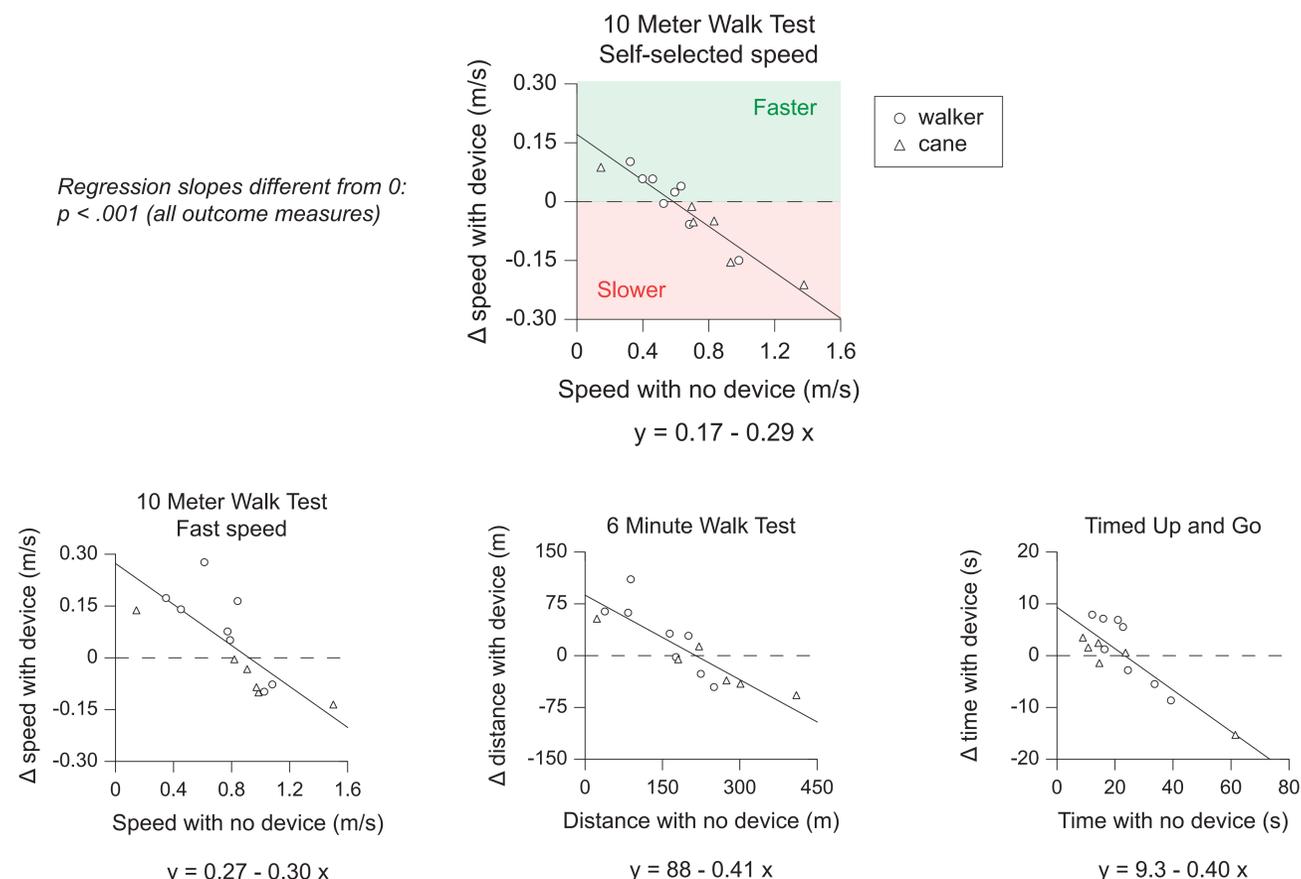
### Complete Outcome Measures With and Without a Device



E.g., a participant completed the TUG 5x with their walker and 5x without their walker. Participants used the walker or cane they normally brought to the adult day center.

## Results

1. Walkers and canes can improve or hinder performance on the 10MWT, 6MWT, and TUG.
2. Older adults with worse scores without their device tended to have better performance with their walker or cane.
3. Older adults with better scores without their device tended to have worse performance with their walker or cane.



## Discussion

Walkers and canes can improve or hinder performance on the 10MWT, 6MWT, and TUG.

The effect of a device can be clinically meaningful.

Using a device during repeated outcomes testing may reduce the measured effect of an intervention.<sup>2</sup>

An older adult's performance without a device can be used to predict whether a device will improve or hinder performance.

## Clinical recommendations

Patients should use the same device for repeated outcomes testing.

If it is safe, and the primary purpose of measurement is to detect large improvements, do not use a device during testing.

## References

1. Gell NM et al. Mobility device use in older adults and incidence of falls and worry about falling: findings from the 2011-2012 national health and aging trends study. *J Am Geriatr Soc.* 2015;63(5):853-859.2.
2. Toots A, Littbrand H, Holmberg H, et al. Walking Aids Moderate Exercise Effects on Gait Speed in People With Dementia: A Randomized Controlled Trial. *J Am Med Dir Assoc.* 2017;18(3):227-233.

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