

# Dual-tasking performance in community-dwelling stroke survivors

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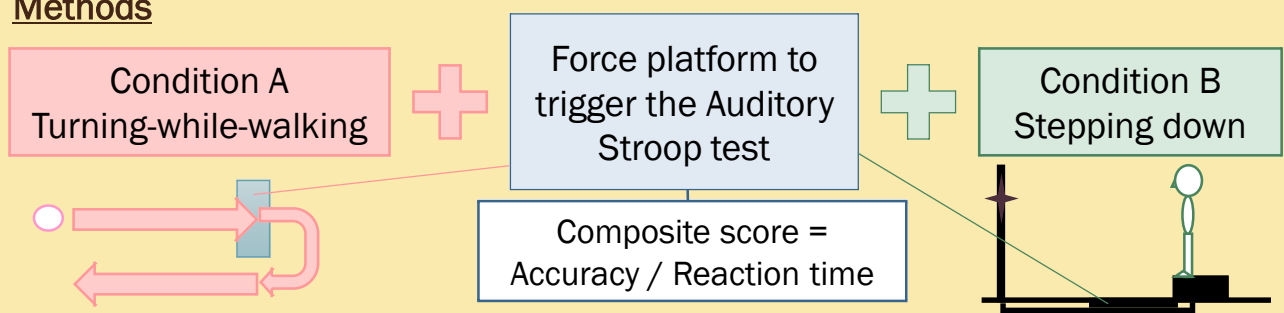
## Background

- Turning and stepping down are common in daily life and require attentional resources.
- An additional cognitive task to either movement (dual-tasking) could be more challenging, especially in people with stroke.

## Hypotheses

- A decrement in both cognitive and physical tasks performance would be observed when dual-tasking among community-dwelling stroke survivors.
- Stroke survivors would have a lower dual-tasking ability than the controls.

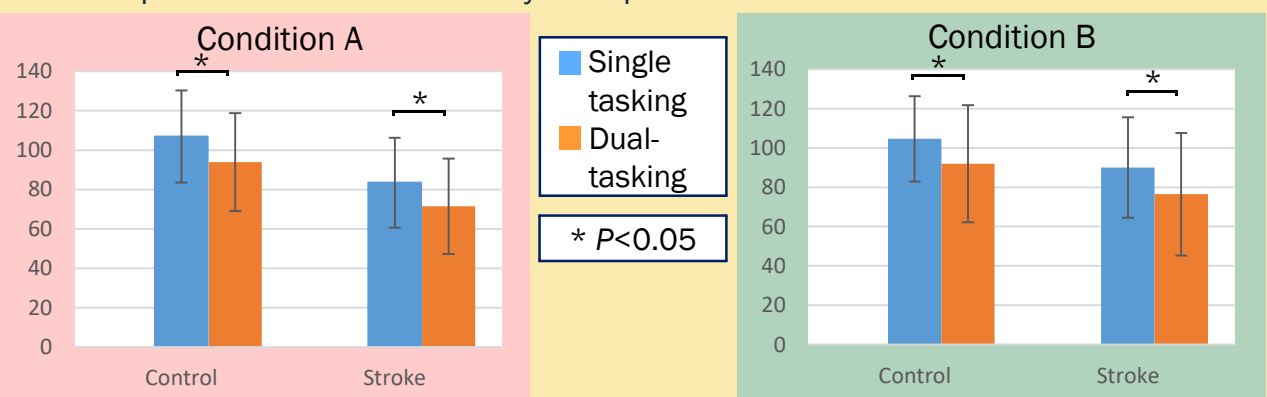
## Methods



## Results

	Condition A		Condition B	
	Control (n=45)	Stroke (n=59)	Control (n=34)	Stroke (n=26)
Age (yr)	61.3±4.8	62.4±6.8	61.8±4.8	63.2±6.6
MMSE	29.4±1.1*	27.9±2.2*	29.2±1.2*	28.0±2.3*
Berg Balance Scale	55.9±0.3*	48.1±6.8*	55.9±0.2*	53.0±2.5*
Stroke chronicity (yr)	/	5.4±4.8	/	5.2±4.7

- Composite score of the auditory Stroop test:



- Physical task performance: No significant difference between single tasking and dual-tasking in both Condition A and Condition B.
- Between-group comparison: Poorer cognitive and physical performance in stroke survivors compared to controls when dual-tasking.

## Conclusion

- Stroke survivors compromised cognitive task performance while preserving physical task performance when dual-tasking.
- Subjects may have employed a 'posture-first strategy' when dual-tasking.
- The study results raised awareness on dual-tasking ability deterioration in community-dwelling stroke survivors.
- Interventions to enhance dual-tasking performance is worth pursuing.