

## Chair Stand Test (5-times-sit-to-stand) 'how to' guide

### Materials required:

- Stopwatch
- Chair with backrest

### Procedure:

- Patient position: Sitting in the middle of the chair with their back straight and feet flat on the floor and hip width apart. Patients should have their hands placed on opposite shoulders crossed at the wrists.
- The patient should be offered one practise trial before measurements are recorded. If the clinician is worried about patient fatigue, they should demonstrate one stand and then encourage two repetitions.

### Instruction to participant:

- "I want you to stand up and sit down 5 times as quickly as you can when I say 'Go'."

### How to measure:

- Record the total time from saying "go" to when the patients bottom hits the chair after the 5th stand.
- Patient use of upper limb or need for assistance indicates test failure. This should be recorded along with the type of support required.

### Example Cut Point:

Low strength	> 15 seconds for 5 rises
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\* Select the most appropriate cut point for the population you are working with

### Frequently asked questions:

Q: What is the recommended chair height:

A: Recommended chair height varies in the literature, most commonly between 43 – 45cm.

Q: Can this test be done remotely via telehealth?

A: A safety and feasibility study published in 2023 demonstrated that for people with an AKPS  $\geq 60$  'Able to care for most needs; but requires occasional assistance' can safely do the 30 second sit to stand test. This can be extrapolated to the 5 times sit to stand.

Q: What is the minimum clinically important difference (MCID)?

A: Research in an oncology population is not currently available, however, in a population of people undergoing vestibular rehab the MCID was reported to be 2.3 seconds.

### Key references:

1. Mehmet, H., A.W.H. Yang, and S.R. Robinson, *What is the optimal chair stand test protocol for older adults? A systematic review*. Disabil Rehabil, 2020. **42**(20): p. 2828-2835.
2. Cesari M, Kritchevsky SB, Newman AB et al. Added value of physical performance measures in predicting adverse health-related events: results from the Health, Aging and Body Composition Study. *J Am Geriatr Soc* 2009; 57: 251–9.
3. Klukowska, A.M., et al., *Five-repetition sit-to-stand test performance in healthy individuals: reference values and predictors from 2 prospective cohorts*. Neurospine, 2021. **18**(4): p. 760.
4. Bohannon, R.W., *Reference values for the five-repetition sit-to-stand test: a descriptive meta-analysis of data from elders*. Perceptual and motor skills, 2006. **103**(1): p. 215-222.
5. Buatois, S., et al., *Five times sit to stand test is a predictor of recurrent falls in healthy community-living subjects aged 65 and older*. Journal of the American Geriatrics Society, 2008. **56**(8): p. 1575-1577.

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