FIVE TIMES SIT TO STAND (5TSTS)

Orange text indicates that the reference was also critically appraised and cited in the publication "A Core Set of Outcome Measures for Adults with Neurologic Conditions Undergoing Rehabilitation: A Clinical Practice Guideline". Journal of Neurologic Physical Therapy 2018; 42(2):174-220.

Instructions:1-6

- Please refer to the protocol for standardized administration of the 5TSTS. This can be found at: http://neuropt.org/practice-resources/anpt-clinical-practice-guidelines/core-outcome-measures-cpg
- Instruct patient to sit in chair with arms folded across their chest and with back against chair.
- Instruct patient:
 - "I want you to stand up and sit down five times in a row, as quickly as you can, when I say 'GO.' Be sure to stand up fully and try not to let your back touch the chair back between each repetition. Do not use the back of your legs against the chair."

Scoring:1,3,4,5

- Score is the amount of time it takes for an patient to transfer from a seated position to standing position and back to sitting five times.
- Time is documented in seconds to the nearest decimal.
- A score of 0 is given when patient is unable to perform repetitions without the use of arms.

Considerations:

- Subsequent assessments should be completed with same height chair.
- If patient is unable to perform 5TSTS, the tester may document the number of stands, time, and compensatory movements, however this is not considered a trial of the 5TSTS test.

What Does my Patient's Score Mean?

Cut-off scores and normative values may be used in conjunction with a complete evaluation to interpret the meaning of a patient's 5TSTS score.

Normative Values by Age Category (Healthy Population)5:

Age in years (n)	Mean ± SD
14-19 (25)	6.5 ± 1.2 sec
20-29 (36)	6.0 ± 1.4 sec
30-39 (22)	6.1 ± 1.4 sec
40-49 (15)	7.6 ± 1.8 sec

50-59 (20)	7.7 ± 2.6 sec
60-69 (25)	7.8 ± 2.4 sec
70-79 (24)	9.3 ± 2.1 sec
80-85 (14)	10.8 ± 2.6 sec
50-85 (83)	8.7 ± 2.6 sec

- Stroke (chronic)
 - Cutoff score: >12 seconds discriminates healthy adults from individuals with stroke⁷
- Parkinson's Disease (Hoehn & Yahr 1-4)
 - o Cutoff scores:
 - 16 seconds discriminates fallers vs. non-fallers, with > 16 seconds indicating risk for falls³
- Balance and/or vestibular disorder (mean length of balance or dizziness symptoms=14.3 months, range: 4-30 months)
 - Cutoff score: 13 seconds indicates balance dysfunction¹
 - < 60 years old: 10 seconds; >60 years old: 14.2 seconds.¹
- Community dwelling older adults
 - Cutoff scores:
 - · ≥12 seconds identifies the need to further assess for falls⁸
 - >15 seconds= risk of fall⁹

What Constitutes a Change in 5TSTS Scores?

- Change can be determined using values of Minimal Detectable Change (MDC) and Minimal Clinically Important Difference (MCID). MDC is the minimal change required to ensure the change is not the result of measurement error. MCID is the minimal change required for the patient to also feel an improvement in the construct being measured.
 - †Denotes that the MDC was calculated from the Standard Error of the Measure.
- Vestibular Disorders
 - MCID: > 2.3 seconds¹⁰
- Parkinson's Disease (Hoehn & Yahr 1-4)
 - MDC[†]: 2.4 seconds¹¹

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