

## Uitgebreide toelichting van het meetinstrument

### Timed Chair-Stand-Test (TCST/TCS)

### Overkoepelende naam: Chair Stand Test (CST)

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#### 1 *Algemene gegevens*

	Het meetinstrument heeft betrekking op de volgende categorieën
<b>Lichaamsregio</b>	Onderste extremiteit
<b>Aandoening (ICD)</b>	Bewegingsapparaat (Spier- en peesaandoeningen)
<b>Domein 'Menselijk functioneren' (ICF)</b>	Bewegingssysteem

- *Korte beschrijving* → De Timed Chair Stand Test is een eenvoudige evaluatieve test om o.a. de spierkracht, balans en valrisico van ouderen te bepalen. Bij de Timed Chair Stand Test wordt de patiënt gevraagd om zo snel als mogelijk 5 keer op te staan van de stoel en vervolgens weer te gaan zitten, zonder dat daarbij de armen worden gebruikt. De fysiotherapeut neemt de tijd in seconden op.<sup>1,2,3</sup> Van dit instrument is een originele en Parkinson-specifieke versie beschikbaar.
- *Doelgroep* → oudere personen of mensen met verminderd functioneren van de onderste extremiteit<sup>1</sup>
- *Auteur:*
  - ✓ *Oorspronkelijke versie* → Csuka M, McCarty DJ (1985)<sup>1</sup>
  - ✓ *Nederlandse versie* → beschikbare versie is afkomstig uit de KNGF-Richtlijn Reumatoïde Artritis<sup>4</sup>

#### 2 *Doel van het meetinstrument*

- Evaluatief / effectiviteit
- Inventariserend

### 3 *Soort / vorm van het meetinstrument*

- Performancetest
- *Opbouw* → totaal 1 opdracht
- *Meetniveau* → wijze van score: (tijdsduur in sec.); meetniveau ratio

### 4 *Verkrijgbaarheid*

- *Opvraagbaar bij* → [www.meetinstrumentenzorg.nl](http://www.meetinstrumentenzorg.nl)
- *Geschatte kosten* → gratis te downloaden
- *Copyright* → ja

### 5 *Methodologische kwaliteit*

Gegevens over de methodologische kwaliteit staan o.a. in de volgende reviews:

- Kocks, JWH, Asijee GM, Tsiligianni IG, Kerstjens HAM, van der Molen T. Functional status measurement in COPD: a review of available methods and their feasibility in primary care. 2011<sup>5</sup>
- Bohannon RW. Test-retest reliability of the five-repetition sit-to-stand test: a systematic review of the literature involving adults. 2011<sup>6</sup>
- Dobson F, Hinman RS, Hall M, Terwee CB, Roos EM, Bennell KL. Measurement properties of performance-based measures to assess physical function in hip and knee osteoarthritis: a systematic review. 2012<sup>7</sup>
- Mijnaerends DM, Meijers JMM, Halfens RJG, ter Borg S, Luiking YC, Verlaan S, Schoberer D, Crus Jentoft AJ, van Loon LJC, Schols JMGA. Validity and reliability of tools to measure muscle mass, strength, and physical performance in community-dwelling older people: a systematic review. 2013<sup>8</sup>
- Granger CL, McDonald CF, Parry SM, Oliveira CC, Denehy L. Functional capacity, physical activity and muscle strength assessment of individuals with non-small cell lung cancer: a systematic review of instruments and their measurement properties. 2013<sup>9</sup>
- Sylva PF, Quintino LF, Franco J, Farria CD. Measurement properties and feasibility of clinical tests to assess sit-to-stand/stand-to-sit tasks in subjects with neurological disease: a systematic review. 2014<sup>10</sup>
- Mahaffey R, Morrison SC, Stephensen D, Drechsler WI. Clinical outcome measures for monitoring physical function in pediatric obesity: an integrative review. 2016<sup>11</sup>
- Symonds T, Campbell P, Randall JA. A review of muscle- and performance-based assessment instruments in DM1. 2017<sup>12</sup>
- Johnston KN, Potter AJ, Phillips A. Measurement properties of short lower extremity functional exercise tests in people with chronic obstructive pulmonary disease: systematic review. 2017<sup>13</sup>
- Mestre TA, et al. Rating scales and performance-based measures for assessment of functional ability in Huntington's Disease: critique and recommendations. 2018<sup>14</sup>
- Rastelli E, Montagnese F, Massa R, Schoser B. Towards clinical outcome measures in myotonic dystrophy type 2: a systematic review. 2018<sup>15</sup>
- Gough EL, et al. A scoping review of physical performance outcome measures used in exercise interventions for older adults with Alzheimer Disease and related dementias. 2019<sup>16</sup>

- Soubra R, Chkeir A, Novella J. A systematic review of thirty-one assessment tests to evaluate mobility in older adults. 2019<sup>17</sup>
- Jakobsson M, Gutke A, Mokka LB, Smeets R, Lundberg M. Level of evidence for reliability, validity, and responsiveness of physical capacity tasks designed to assess functioning in patients with low back pain: a systematic review using the COSMIN standards. 2019<sup>18</sup>
- de Valle K, McGinley JL, Woodcock I, Ryan MM, Dobson F. Measurement properties and utility of performance-based outcome measures of physical functioning in individuals with facioscapulohumeral dystrophy: a systematic review and evidence synthesis. 2019<sup>19</sup>
- Stienen MN, et al. Objective measures of functional impairment for degenerative diseases of the lumbar spine: a systematic review of the literature. 2019<sup>20</sup>
- Bergquist R, Weber M, Schwenk M, Ulseth S, Helbostad JL, Vereijken B, Taraldsen K. Performance-based clinical tests of balance and muscle strength used in young seniors: a systematic literature review. 2019<sup>21</sup>
- Combret Y, et al. Clinimetric evaluation of muscle function tests for individuals with cystic fibrosis: a systematic review. 2020<sup>22</sup>
- Reynaud V, Verdilos A, Pereira B, Boisgard S, Costes F, Coudeyre E. Core outcome measurement instruments for clinical trials of total knee arthroplasty: a systematic review. 2020<sup>23</sup>
- Arora T, Oates A, Lynd K, Musselman KE. Current state of balance assessment during transferring, sitting, standing and walking activities for the spinal cord injured population: a systematic review. 2020<sup>24</sup>
- Castro-Pinero J, et al. Criterion-related validity of field-based fitness tests in adults: a systematic review. 2021<sup>25</sup>
- McLeod C, et al. The measurement properties of tests and tools used in cystic fibrosis studies: a systematic review. 2021<sup>26</sup>
- Sinovas-Alonso I, Gil-Agudo A, Cano-de-la-Cuerda R, Del-Ama AJ. Walking ability outcome measures in individuals with spinal cord injury: a systematic review. 2021<sup>27</sup>
- Leitao M, Saude A, Bouca-Machado R, Ferreira JJ. Assessment tools to evaluate motor function in people with dementia: a systematic review. 2022<sup>28</sup>
- Wang C, Chen H, Qian M, Shi Y, Zhang N, Shang S. Balance function in patients with COPD: a systematic review of measurement properties. 2022<sup>29</sup>
- Morgan A, Begin D, Heisz J, Tang A, Thabane L, Richardson J. Measurement properties of remotely or self-administered lower extremity mobility performance measures in adults: a systematic review. 2022<sup>30</sup>
- Cuenca-Garcia M, et al. Reliability of field-based fitness tests in adults: a systematic review. 2022<sup>31</sup>
- de Oliveira MPB, da Silva Serrao PRM, Takahashi AC, Pereira ND, de Andrade LP. Reproducibility of assessment tests addressing body structure and function and activity in older adults with dementia: a systematic review. 2022<sup>32</sup>
- Galharda L, Raimuno A, Del Pozo-Crus J, Marmeleira J. Physical and motor fitness tests for older adults living in nursing homes: a systematic review. 2022<sup>33</sup>
- Alhasani R, Auger C, Azevedo MP, Ahmed S. Quality of mobility measures among individuals with acquired brain injury: an umbrella review. 2022<sup>34</sup>

## 6 *Hanteerbaarheid / feasibility*

- *Taal* → Nederlands
- *Benodigdheden* → stoel (bij voorkeur zonder leuning), met zithoogte 43-45cm<sup>35,36</sup>, stopwatch en eventueel bevindingenformulier
- *Randvoorwaarden* → plaats de stoel met de leuning tegen een muur in verband met de veiligheid van de deelnemer. Altijd in de onmiddellijke nabijheid van de cliënt blijven.
- *Benodigde tijd* → ongeveer 30 seconden voor de afname<sup>5</sup>
- *Gebruikershandleiding* → ja

## 7 *Normgegevens*

- *Uitkomstklassen en normgegevens* →  
Interpretatie: indien de oudere persoon 14 seconden of meer nodig heeft, of indien de oudere persoon niet in staat is de test uit te voeren, heeft men een verhoogd risico ten aanzien van vallen.<sup>4</sup>
- Naast de bovengenoemde KNGF-richtlijn Reumatoïde Artritis<sup>4</sup> worden in de literatuur afwijkende normwaarden beschreven voor de volgende specifieke doelgroepen:  
Ziekte van Parkinson: >16 seconden is indicatief voor een verhoogd valrisico<sup>37</sup>  
Bij patiënten met CVA: >12 seconden is indicatief voor een verhoogd valrisico<sup>38</sup>  
Bij balans- en vestibulaire stoornissen: >10 seconden bij jongeren (<60jr) en 14,2 seconden bij ouderen (>60jr)<sup>39</sup>
- Indien een patiënt 17 seconden of meer nodig heeft men 30% meer risico op in het ziekenhuis op te worden genomen.<sup>40</sup>

## 8 *Overige gegevens*

- Andere benamingen voor de test zijn Five Times Sit to Stand (FTSTS) en Five Repetition Sit to Stand (FRSTS).
- Variaties in de test zijn ook beschikbaar, bijvoorbeeld
  - Ten Times Stand Test
  - Single leg sit-to-stand test
  - 1-minute sit-to-stand test
  - 10 Second Sit to Stand Test
  - Six Times Sit to Stand Test
  - 30 second sit to stand
- Het instrument staat ook beschreven in de Database Rehabilitation Measures.<sup>35</sup>

## 9 *Literatuurlijst*

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