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10 Meter Timed Walk

Availability:	**Public Domain in Rehabilitation Measures Database 10 Meter Timed Walk Link.**
Classification:	**Supplemental - Highly Recommended**: Duchenne Muscular Dystrophy (DMD) and Spinal Cord Injury (SCI) **Supplemental:** Cerebral Palsy (CP), Huntington's Disease (HD), Myotonic Muscular Dystrophy (DM), Multiple Sclerosis (MS), Neuromuscular Disease (NMD), SCI-Pediatric (age 2 years and over), and Spinal Muscular Dystrophy (SMA) **Exploratory**: Congenital Muscular Dystrophy (CMD)
Short Description of Instrument:	**Construct measured:** Walking speed **Generic vs. disease specific**: Generic **Means of administration:** Administered in-person by a trained examiner. **Intended respondent:** Participant
Comments/Special instructions:	**Scoring:** There is variation in the number of trials that are undertaken in different studies, ranging from one to three trials. The average speed is calculated to the nearest 0.1 second when more than one trial is used. **Background:** The 10 Meter Timed Walk, measures the time an individual walks 10 meters (32.8 feet) using a handheld stopwatch. If physical assistance from another person is required to walk, this test should not be performed. The timing starts when the lead foot crosses the start line and stops when the lead foot crosses the finish line.There is variation in the way the test is operationalised, and hence it is essential that the protocol used is clearly stipulated. Some studies test at the patients usual comfortable walking speed, while others use the patients fastest safe speed. Some studies tell the participant to start and stop at the line marking the 10 metre distance (referred to as a static start), while others use a "flying start and finish" in which the patient starts to walk 2 meters before the start line and continues 2 meters after the finish line, such that only the middle 10 meters is timed. Assistive devices should be recorded, and whenever possible, the same used at each test to enable comparison of data. SCI-Pediatric: Assistive devices can be used but should be kept consistent and documented. Collect 3 trials and calculate the average of the 3 trial times.
Rationale/ Justification:	**Strengths/Weaknesses:** It can be less sensitive for detecting changes among patients with minimal walking disability. **MS Specific Psychometric Properties:** This test (regardless of which version of the protocol is used) has shown to be a feasible, reliable, valid and responsive for measuring walking velocity over 10 meters in people with MS. **Administration:** Administration time will vary depending on the patient's ability.

	Total administration time should be approximately 1–5 minutes.
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Disease-specific References—DMD:	Florence JM, Pandya S, King WM, Robison JD, Signore LC, Wentzel M, Province MA. Clinical trials in Duchenne dystrophy. Standardization and reliability of evaluation procedures. Phys Ther. 1984;64(1):41–45. Kissel JT, McDermott M P, Mendel, J R, King WM, Pandya S, Griggs RC, Tawi, R. Randomized, double-blind, placebo-controlled trial of albuterol in facioscapulohumeral dystrophy. Neurology. 2001;57(8):1434–1440. Kissel JT, McDermott MP, Natarajan R, Mendell JR, Pandya S, King WM, Griggs RC, Tawil R. Pilot trial of albuterol in facioscapulohumeral muscular dystrophy. FSH-DY Group. Neurology. 1998;50(5):1402–1406. The FSH-DY Group. A prospective, quantitative study of the natural history of facioscapulohumeral muscular dystrophy (FSHD): implications for therapeutic trials. Neurology. 1997;48(1):38–46. Tawil R, McDermott MP, Mendell, JR, Kissel J, Griggs RC. Facioscapulohumeral muscular dystrophy (FSHD): design of natural history study and results of baseline testing. FSH-DY Group. Neurol. 1994;44(3 Pt 1):442–446. Tawil R, McDermott MP, Pandya S, King W, Kissel J, Mendell JR, Griggs RC. A pilot trial of prednisone in facioscapulohumeral muscular dystrophy. FSH-DY Group. Neurol. 1997:48(1):46–49.
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Disease-specific References—SCI:	Jackson AB, Carnel CT, Ditunno JF, Read MS, Boninger ML, Schmeler MR, Williams SR,Donovan WH. Outcome measures for gait and ambulation in the spinal cord injury population. J Spinal Cord Med. 2008;31(5):487–499. Lam T, Noonan VK, Eng JJ. A systematic review of functional ambulation outcome measures in spinal cord injury. Spinal Cord. 2008;46(4):246–254. Musselman KE, Fouad K, Misiaszek JE, Yang JF. Training of walking skills overground and on the treadmill: case series on individuals with incomplete spinal cord injury. Phys Ther. 2009;89(6):601–611. Olmos LE, Freixes O, Gatti MA, Cozzo DA, Fernandez SA, Vila CJ, Agrati PE, Rubel IF. Comparison of gait performance on different environmental settings for patients with chronic spinal cord injury. Spinal Cord. 2008;46(5):331–334. Scivoletto G, Tamburella F, Laurenza L, Foti C, Ditunno JF, Molinari M. Validity and reliability of the 10-m walk test and the 6-min walk test in spinal cord injury patients. Spinal Cord. 2011;49(6):736–740. van Hedel HJ, Dietz V, Curt A. Assessment of walking speed and distance in subjects with an incomplete spinal cord injury. Neurorehabil Neural Repair. 2007;21(4):295–301. van Hedel HJ, Wirz M, Curt A. Improving walking assessment in subjects with an incomplete spinal cord injury: responsiveness. Spinal Cord. 2006;44(6):352–356. van Hedel HJ, Wirz M, Dietz V. Assessing walking ability in subjects with spinal cord injury: validity and reliability of 3 walking tests. Arch Phys Med Rehabil. 2005;86(2):190–196. van Hedel HJ, Wirz M, Dietz V. (2008). Standardized assessment of walking capacity after spinal cord injury: the European network approach. Neurol Res. 2008;30(1):61–73.
Disease-specific References—HD:	Rao AK, Muratori L, Louis ED, Moskowitz CB, Marder KS. Spectrum of gait impairments in presymptomatic and symptomatic Huntington's disease. Mov Disord. 2008;23(8):1100–1107.
Disease-specific References—CP:	Chrysagis N, Skordilis EK, Koutsouki D. Validity and clinical utility of functional assessments in children with cerebral palsy. Arch Phys Med Rehab. 2014;95(2):369–374. Graser JV, Letsch C, van Hedel HJ. Reliability of timed walking tests and temporo-spatial gait parameters in youths with neurological gait disorders. BMC Neurol. 2016;16:15.
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