6 MINUTE WALK TEST (6MWT)

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:[1,2]

- Please refer to the protocol for standardized administration of the 6MWT. This can be found at: http://neuropt.org/practice-resources/anpt-clinical-practice-guidelines/core-outcome-measures-cpg
- This protocol includes standardized instructions, timing and examples of encouragement to provide during the test.

Scoring:[1,2]

- Distance (in meters) covered in six minutes is calculated by multiplying the number of total laps by 12 meters, then adding the distance of the partial lap completed at the time the test ended.

Considerations:[3-5]

- Document any assistive device/bracing used.
- Document the amount of assistance using the 7-point ordinal scale described in the standardized administration protocol.
- If a patient requires total assistance, is unable to ambulate, or requires assistance for limb swing or forward propulsion, a score of 0 should be documented.
- If your patient needs to sit and rest, the test stops and this distance is recorded as the 6MWT score.

What Does my Patient's Score Mean?*

- Normative values may be used in conjunction with a complete evaluation to interpret the meaning of a patient's 6MWT.
- Community-dwelling Elderly (n=96, non-smoking, independent function, no dizziness, no assistive device use).[6]

AGE	MALE	FEMALE
60-69 yrs	572 meters	538 meters
70-79 yrs	527 meters	471 meters
80-89 yrs	417 meters	392 meters

- Or, calculate the normal distance (in meters) for their gender, age, height, and weight using these equations (n=290, healthy adults 40-80yo)[7]:

MEN: distance = (7.57 × height cm) - (5.02 × age) - (1.76 × weight kg) - 309

WOMEN: distance = (2.11 × height cm) - (2.29 × weight kg) - (5.78 × age) + 667

**Healthy age- and gender-matched normative values and reference equations were calculated using longer course configurations than the protocol recommendation. Exercise caution when comparing walking distances achieved on the 12 m course outlined in the ANPT protocol to these normative values.*

What Constitutes a Change in Walking Distance?*

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.

- Alzheimer's Disease:
  - MDC: 33.5 meters(m)[8]
- Geriatrics:
  - MDC†: 58.2 m[9]

- Huntington's Disease (HD):
  - MDC (premanifest HD): 39.2 m[1]
  - MDC (manifest HD): 86.6 m[1]
  - MDC (early stage HD): 56.6 m[1]
  - MDC (middle stage HD): 126.14 m[1]
  - MDC (late stage HD): 70.7 m[1]
- Multiple Sclerosis (mean EDSS= 3.5)
  - MDC: 88m or 20% change[10]
- Parkinson Disease (Hoehn & Yahr 1-4, median 2):
  - MDC: 82 m[11]
- Spinal Cord Injury:
  - MDC (Incomplete injuries, < 12 months post-injury): 45.8 m[12]
  - MCID (ASIA scale C/D, chronic SCI): 0.1 m/s change in gait speed using distance covered on 6MWT[13]
- Stroke:
  - MDC (chronic, >12 months post-stroke, BBS= 46-55): 34.4m[14]
  - MDC (chronic, 6-48 months post-stroke, ability to ambulate 300m): 36.6 m[15]
  - MDC† (subacute, 30-150 days post-stroke): 61.0 m[6]
  - MCID (chronic, >6 months post-stroke): 34.4 m[16]
  - MCID (2-6 months post-stroke, ability to walk 3 m with < max assist):
    - when initial gait speed <0.40 m/s = 44 m[17]
    - when initial gait speed ≥0.40 m/s = 71 m[17]

**All change values were calculated from 6 minute walk protocols that varied in course walkway length and configuration. Exercise caution when comparing walking distances achieved on the 12 m course outlined in the ANPT protocol*

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Referenced information was reviewed by the Core Measures KT Taskforce in 2019 at www.neuropt.org. Some values are condition specific and caution should be used in generalizing them to all patients.