10 Meter Walk Test for Adults with Lower-Limb Amputations

Description: The 10 Meter Walk Test (10MWT) is a performance-based measure that may be used to assess gait speed in patients with one or more lower-limb amputations who may or may not be using a prosthesis.

Equipment: A clear pathway at least 10 meters long with lines on the floor indicating the start, finish, and 2-meter marks from either end; a stopwatch; assistive device (if needed)

Patient Instructions:
Self-Selected Speed: "When I say go, walk at your normal comfortable pace to the finish line.
Fast Speed: "When I say go, walk as fast and as safely as possible to the finish line.

Clinician Instructions: Start timing when the patient's completely passes the 8-meter mark, which allows for 2 meters of acceleration at the start and 2 meters of deceleration at the end of the course. Record for 3 trials and then take the average for each walking condition, i.e., self-selected and fast speeds.

Calculation for each walking condition: 6m/time (s) = ___ m/s

Reference: Prosthesis Users with Unilateral Amputation (m/s)

Traumatic Transfemoral Amputation (n=24; 28±5 y)
Self-selected speed 1.25±0.12
Fast speed 1.26±0.29

Reference: Longer-Term Unilateral Prosthesis Users (m/s)

K3 (n=35; age: 60±12 y)
Self-selected speed 0.88±0.04 (0.80-0.96)
Fast speed 1.12±0.05 (1.02-1.22)

K4 (n=20; age: 46±12 y)
Self-selected speed 1.21±0.05 (1.11-1.32)
Fast speed 1.56±0.07 (1.41-1.70)

Note: Using center 6 m timed from 10 m course.

Reference Values: IPOP Users at Rehabilitation Discharge (m/s)

Unilateral LLL (n=110; age 63±13 y)
Mean (IRQ)
K1 (n=6) 0.17 (0.15-0.19)
K2 (n=43) 0.38 (0.25-0.54)
K3 (n=54) 0.63 (0.50-0.71)
K4 (n=7) 1.06 (0.95-1.18)

Note: Self-selected speed using 10 m timed.

Handout may be used and distributed without modification for clinical and educational purposes. Updated July 2021.