

Gait Speed (preferred and maximal)

Test Protocol

Measure a standard distance (e.g., 20 feet) and place markers at the start and finish. Start the patient 5 feet in front of the mark and have the patient walk 5 feet past the finish mark. Begin the stopwatch as soon as the person's foot crosses the start line and stop recording when the person's second foot crosses the finish line. Have the person perform 3 repetitions of each condition and calculate the average time.

Gait Speed = distance / time e.g. 20' / __ sec.

Instructions for the Patient:

1. Ask the patient to walk at his/her **preferred** walking speed. Instruct the patient to continue walking 5 feet beyond the finish line.
2. Ask the patient to walk as **quickly** as possible, but safely. Instruct the patient to continue walking 5 feet beyond the finish line.

Reference values				
Age	Preferred (ft/s)		Maximal (ft/s)	
	Men	Women	Men	Women
20s	3.57	3.47	6.40	6.43
30s	4.17	3.81	5.99	5.43
40s	3.72	3.53	5.70	5.16
50s	3.07	3.59	3.85	4.90
60s	3.11	2.85	3.95	4.15
70s	3.08	2.79	4.44	3.89
frail	1.18	1.38	1.97	1.57

Adapted from Bohannon RW (1997), Frail data from Lusardi et al. (2002).
Note: Reference values are based on small sample sizes.

<1.8 ft./sec = risk for recurrent falls -- Sensitivity 72%, Specificity 74% -- Van Swearingon JM (1998)

<1.9 ft./sec = would benefit from PT eval and possible treatment – Sens. 80%, Spec. 89% -- Harada N (1995)

Table 2. Comfortable Gait Speed: Means, Standard Deviations, and Confidence Intervals by Age, Gender, and Use of Assistive Device (in Meters per Second)

Age (y)	Group	N	Mean	SD	CI
60-69	Male	1	1.26	---	0.84 – 1.67
	Female	5	1.24	0.12	1.05 – 1.42
	Overall	6	1.24	0.10	1.13 – 1.35
70-79	Male	9	1.25	0.23	1.11 – 1.39
	Female	10	1.25	0.18	1.11 – 1.38
	Overall	19	1.25	0.20	1.15 – 1.34
80-89	Male	10	0.88	0.24	0.75 – 1.01
	Female	24	0.80	0.20	0.72 – 0.89
	No Device	24	0.91	0.16	0.84 – 0.98
	Device	10	0.63	0.17	0.52 – 0.74
	Overall	34	0.82	0.21	0.75 – 0.90
90-101	Male	2	0.72	0.14	0.43 – 1.02
	Female	15	0.71	0.23	0.60 – 0.82
	No Device	7	0.88	0.23	0.76 – 1.01
	Device	10	0.59	0.10	0.48 – 0.70
	Overall	17	0.71	0.22	0.60 – 0.82

Table 3. Fast Gait Speed: Means, Standard Deviations, and Confidence Intervals by Age, Gender, and Use of Assistive Device (in Meters per Second)

Age (y)	Group	N	Mean	SD	CI
60-69	Male	1	1.96	---	1.37 – 2.56
	Female	5	1.81	0.17	1.55 – 2.08
	Overall	6	1.84	0.17	1.67 – 2.02
70-79	Male	9	1.94	0.26	1.74 – 2.14
	Female	10	1.80	0.26	1.61 – 1.99
	Overall	19	1.86	0.27	1.73 – 1.99
80-89	Male	10	1.29	0.38	1.10 – 1.48
	Female	24	1.20	0.29	1.08 – 1.33
	No Device	24	1.38	0.22	1.28 – 1.47
	Device	10	0.88	0.23	0.73 – 1.03
	Overall	34	1.23	0.32	1.12 – 1.34
90-101	Male	2	1.27	0.13	0.85 – 1.69
	Female	15	1.05	0.32	0.90 – 1.21
	No Device	7	1.29	0.33	1.11 – 1.47
	Device	10	0.93	0.20	0.78 – 1.08
	Overall	17	1.08	0.31	0.92 – 1.24