

Functional Reach Test

Test date: _____ Patient's name: _____

Referring physician's name: _____

What to prepare for the test

- Wall space (at least 3 feet of wall space should suffice)
- A yardstick to measure reach distance
- Tape or velcro to secure the yardstick on the wall and mark the standing point of your patient
- A point person to stand near the patient in case they show signs of falling

Instructions

1. Have your patient stand behind the standing baseline. They should be standing alongside the wall with their arm close to the wall at 90 shoulder flexion, and their fist closed.
2. First, measure your client's starting position, specifically the starting position of the third metacarpal head on the yardstick.
3. Once measured, instruct your patient to reach as far as they can without moving their feet.
4. Record their reach (the third metacarpal head on the yardstick). When recording the reach, keep in mind that you're recording in inches. Furthermore, remember that you'll be calculating the reach, and it'll be based on the difference between the starting and ending positions.
5. Have your patient rest. At least 15 seconds should be good, but of course, take into consideration how they're feeling and extend the break if necessary.
6. Repeat the test two more times.

Patient's scores

Trials	Start position	End position	Difference (end position - start position)
Trial 1 (practice)			
Trial 2			
Trial 3			

Average score in inches (based on Trial 2 and 3's differences): _____

Average reach for men and women per age range

Age range	Men	Women
20-40 years old	16.73 inches (42.49 cm)	14.64 inches (37.9 cm)
41-69 years old	14.98 inches (38.05 cm)	13.81 inches (35.08 cm)
70-87 years old	13.16 inches (33.43 cm)	10.47 inches (26.59 cm)

Average score interpretations

Score range	Risk assessment
Patient is unwilling to reach	Extremely high risk of falling (8x the risk)
6 inches or below	High risk of falling (4x the risk)
7-10 inches	Moderate risk of falling (2x the risk)
Greater than 10 inches	Low risk of falling

Additional notes

References

- Duncan, P. W., Studenski, S., Chandler, J., & Prescott, B. (1992). Functional reach: Predictive validity in a sample of elderly male veterans. *Journal of Gerontology*, 47(3), M93–M98. <https://doi.org/10.1093/geronj/47.3.m93>
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- Rosa, M. V., Perracini, M. R., & Ricci, N. A. (2018). Usefulness, assessment and normative data of the Functional Reach Test in older adults: A systematic review and meta-analysis. *Archives of Gerontology and Geriatrics*, 81, 149–170. <https://doi.org/10.1016/j.archger.2018.11.015>
- Williams, B.Y., Allen, B., Hu, Z., True, H., Cho, J., Harris, A., Fell, N., & Sartipi, M. (2017). Real-time fall risk assessment using Functional Reach Test. *International Journal of Telemedicine and Applications*, 2017. <https://doi.org/10.1155/2017/2042974>