

The Lower Extremity Functional Scale (LEFS)

Overview: The Lower Extremity Functional Scale (LEFS) can be used to evaluate the functional impairment of a patient with a disorder of one or both lower extremities. It can be used to monitor the patient over time and to evaluate the effectiveness of an intervention. The authors are from McMaster University in Hamilton Ontario.

Patient instructions: Today do you or would you have any difficulty at all with these activities?

Activities (20):

- (1) any of your usual work housework or school activities
- (2) your usual hobbies recreational or sporting activities.
- (3) getting into or out of the bath
- (4) walking between rooms
- (5) putting on your shoes or socks
- (6) squatting
- (7) lifting an object like a bag of groceries from the floor
- (8) performing light activities around your home
- (9) performing heavy activities around your home
- (10) getting into or out of a car
- (11) walking 2 blocks (about 1/6th mile or about 250 meters)
- (12) walking 1 mile (1.6 km)
- (13) going up or down 10 steps (about 1 flight of stairs)
- (14) standing for 1 hour
- (15) sitting for 1 hour
- (16) running on even ground
- (17) running on uneven ground
- (18) making sharp turns while running fast
- (19) hopping
- (20) rolling over in bed

Response	Points
unable to perform activity or extreme difficulty	0

quite a bit of difficulty	1
moderate difficulty	2
a little bit of difficulty	3
no difficulty	4

LEFS score = SUM(points for all 20 activities)

Interpretation:

- minimum score: 0
- maximum score: 80
- The lower the score the greater the disability.
- The Minimal Detectable Change (MDC) is 9 scale points.
- The Minimal clinically Important Difference (MCID) is 9 scale points.

percent of maximal function =

$$= (\text{LEFS score}) / 80 * 100$$

Performance:

- The potential error at a given point in time was +/- 5.3 scale points.
- Test-retest reliability was 0.94.
- Construct reliability was determined by comparison with the SF-36. The scale was found to be reliable with a sensitivity to change superior to the SF-36.

References:

Binkley JM Stratford PW et al. The Lower Extremity Functional Scale (LEFS): Scale development measurement properties and clinical application. Physical Therapy. 1999; 79: 371-383 (Appendix page 383).