



The Physical Function in ICU Test – Scored (PFIT-s): Summary

General Notes:

- This test can be performed once a patient is alert enough to cooperate
- If a patient is able to sit in a chair, this position should be used for all components of the test. If they cannot, testing can be completed sitting over the edge of the bed. If they are unable to sit over the edge of the bed, muscle testing can be done in bed, but the patient will be unable to be assessed on the other components of the test
- Conduct the test components in the order they appear on the strength and function case report forms from top to bottom (i.e. strength tests, then sit to stand assistance, then marching on the spot)
- If a test component is conducted more than once throughout multiple attempts to perform the strength and function assessment, use the highest score achieved for PFIT scoring

Testing Procedures:

Test Component	Equipment	Instructions and Additional Considerations
Shoulder Flexion Strength (grade)	Chair/Bed	<ul style="list-style-type: none"> • If the patient has limited range of motion, test their strength within the available range • If one side (right or left) is stronger than the other, use the stronger side (highest grade) for PFIT scoring
Knee Extension Strength (grade)	Chair/Bed	
Sit to Stand Assistance	Chair/Bed	<ul style="list-style-type: none"> • Ideally patient should have their arms crossed at the wrist and held against their chest. If this is not feasible, the patient may keep their arms at their sides or hold on to the arms of the chair. • Provide the least amount of assistance required for the patient to safely transfer to the standing position
Step Cadence (step/min)	Stopwatch/Clock	<ul style="list-style-type: none"> • The patient may use a walker if required • Each time a foot hits the floor, it counts as one step (i.e. stepping with the right foot and then the left foot counts as 2 steps) • The patient's foot must completely clear the floor with each step for it to count. If the patient's feet do not clear the floor at each step for 6 steps, the test is over • If the patient stops marching for longer than 2 seconds the test is over • If the patient can march on the spot for 3 minutes, they automatically receive the highest score (3)

Instructions:

(Standardized instructions from [2])

Marching on the spot component

“Once you are in the standing position, we will ask you to march on the spot. We would like you to march on the spot for as long as you can. We are going to record how long you walk for and how many steps you do. This test is designed to record your maximum exercise ability, so it is very important that you march on the spot for as long as you possibly can.”

If applicable (ie, retest), then: *“Last time you performed the test, you marched for . . . and did . . .steps.” Give standardised encouragement every 10 seconds: “Keep going for as long as you can”, “You’re doing well”, “Well done”.*

Step Cadence Sample Calculation:

of steps = 75

Time (min: sec) = 1:20 = 60sec + 20sec = 80 sec

$$\text{Cadence} = \frac{75 \text{ steps}}{80 \text{ sec}} \times \frac{60 \text{ sec}}{1 \text{ min}} = 56 \text{ steps/min}$$

Scoring:

PFIT Scoring	0	1	2	3	TOTAL	Total PFIT Score <input type="text"/> <input type="text"/> (0 - 12)
Shoulder strength (grade)*	0, 1 or 2	3	4	5	<input type="text"/>	
Knee strength (grade)*	0, 1 or 2	3	4	5	<input type="text"/>	
Sit to Stand Assistance	Unable	Assist x2	Assist x1	No Assist	<input type="text"/>	
Cadence (steps/min)	Unable	>0 - 49	50 - < 80	80+	<input type="text"/>	

References:

[1] Denehy L, De Morton NA, Skinner EH, Edbrooke L, Haines K, Warrillow S, Berney S. A physical function test for use in the intensive care unit: Validity, responsiveness, and predictive utility of the physical function ICU test (scored). Phys Ther. 2013;93(12):1-e3.

[2] Skinner EH, Berney S, Warrillow S, Denehy L. Development of a physical function outcome measure (PFIT) and a pilot exercise training protocol for use in intensive care. Crit Care Resusc. 2009;11(2):110-115.