XPRIZE HEALTHSPAN

Six-Minute Walk Test (6MWT) — Clinical Toolkit

Executive Overview · Site Testing Protocol · Data Recording Sheet

1. Executive Overview — 6MWT

The Six-Minute Walk Test (6MWT) asks a participant to walk as far as possible, at a self-selected pace, along a flat indoor corridor for six minutes. Total distance covered (rounded to the nearest meter) is the primary outcome and the **primary judging measure** for the XPRIZE Healthspan Competition. Standardized turn-around and encouragement procedures are used throughout. The 6MWT was formalized by the American Thoracic Society in 2002 and updated jointly by the European Respiratory Society and ATS as a technical standard for field walking tests (Holland et al., 2014).

Source: Holland, A.E., et al., An official European Respiratory Society/American Thoracic Society technical standard: field walking tests in chronic respiratory disease. European Respiratory Journal, 2014. 44(6): p. 1428-1446.

2. Site Testing Protocol

Equipment

- Indoor, flat, hard-surfaced corridor at least 30 meters long, marked in 3-meter increments
- Cones and brightly colored tape marking both turn-around points; start and end lines taped on the floor.
- Standard stopwatch (never a cell-phone timer), round time to the nearest second.
- Measuring tape, round distance to the nearest meter.
- Stopping-position marker (bean bag or tape) and two chairs, positioned beyond the turn-around zone against the wall.
- Clipboard with the data recording sheet (Section 3) and lap tally/rest stops worksheet (Section 4).

Use the same course, stopwatch, and measuring tape for every visit with a given participant. Conduct testing at approximately the same time of day, when feasible, and use the same examiner whenever possible.

Pre-test screening

Do not conduct the test if the participant has any of the following:

- Unstable angina or myocardial infarction in the past month
- Dizziness, shortness of breath, or chest pain/pressure/tightness at the time of testing
- Resting heart rate > 120 bpm or < 40 bpm *(measured earlier in visit)*
- Systolic blood pressure > 180 mmHg or diastolic blood pressure > 100 mmHg *(measured earlier in visit)*
- Reports not feeling safe to attempt the test or examiner/clinician concern

Use clinical judgment and document the deviation for: usual walking aids or supplemental oxygen. For standardization, it is recommended that participants avoid the use of assisted devices or oxygen if possible. However, testing may proceed with the aid/device used at baseline, **but the same aid or device, if still needed, must be used at every subsequent visit for that participant.** If a walking aid becomes necessary after testing begins, stop the test and restart it after a 5-minute rest.

Before starting, confirm required paperwork is on file and seat the participant at rest for a minimum of 5 minutes and up to 15 minutes.

Procedure

- Walk the participant to the start line and read the standardized instructions verbatim, confirm understanding, and answer any questions.
    - "*The aim of this test is to walk as far as possible for 6 minutes. You will walk along this hallway between the markers, as many times as you can in 6 minutes. I will let you know as each minute goes past, and then at 6 minutes I will ask you to stop where you are. Six minutes is a long time to walk, so you will be exerting yourself. You are permitted to slow down, stop, and rest as necessary, and you may lean against the wall while resting, but do not sit unless you feel unable to safely continue standing. Please resume walking as soon as you are able. Remember that the objective is to walk as far as possible for 6 minutes, but don't run or jog. Do you have any questions*?"
- Say, "*You may start whenever you are ready*", and start the timer as the participant begins walking.
- Follow at a safe distance, behind and to the side, just outside peripheral vision; never cut in front of at turns; do not speak except the scripted encouragement below.
- Mark each completed lap on the tally sheet where the participant can see it.
- Standing rest or leaning on the wall is permitted; sitting before 6 minutes have elapsed is not — sitting is an automatic early termination under the XPRIZE Healthspan protocol.
- If the participant stops walking, do not stop the timer. Say, "*Please resume walking whenever you feel able*," every 30 seconds. Record the time that the participant stops walking and the time that the participant resumes walking.
- At exactly 6:00, say, "*Please stop where you are*," stop the timer, and mark the stopping point with tape or beanbag at the toe tips.

Time	Say verbatim in the participant's preferred language — no other words or gestures.
1 min	You are doing well. You have 5 minutes to go.
2 min	Keep up the good work. You have 4 minutes to go.
3 min	You are doing well. You are halfway.
4 min	Keep up the good work. You have only 2 minutes left.
5 min	You are doing well. You have only 1 minute to go.
6 min	Please stop where you are.
If stopped, every 30s	Please resume walking whenever you feel able.

Early Termination

Stop the test if the participant declines to continue, sits before 6 minutes have elapsed, reports chest pain/pressure, significant shortness of breath, or feeling faint/lightheaded/dizzy, or if the examiner judges it unsafe to continue. Mark the stopping location, bring a chair (or wheelchair), attend to the participant until stable, and record the distance walked, elapsed time, and reasons for early termination.

After the Test

- Move the participant to a chair and offer water.
- Ask about symptoms experienced during or after the test (yes/no checklist on the recording sheet).
- Complete the source document fully and accurately.

What to record

The number of completed laps and the partial-lap distance covered at 6 minutes.

Final total distance, rounding to the nearest meter, will be calculated automatically in the XPRIZE Healthspan Database.

3. Data Recording Sheet (Paper Source Document)

Complete in ink at the time of testing. Transcribe into the XPRIZE Healthspan Database according to the site SOP. Complete one form per visit.

Participant ID #1 (Subject ID)		**Participant ID #2**	
Site / Clinic ID		**Visit / Timepoint**	
Date of Test (DD-MMM-YYYY)		**Examiner Initials**	

Pre-test screening

Item	Response
Reason(s) test was not conducted (Select all that apply).	☐ Unstable angina or myocardial infarction in the past month ☐ Dizziness ☐ Shortness of breath ☐ Chest pain, pressure, or tightness ☐ Resting heart rate >120bpm or <40bpm ☐ Seated systolic blood pressure > 180mmHg or diastolic blood pressure > 100mmHg ☐ Other (specify) _____
Seated rest ≥ 5 minutes completed	□ Yes □ No — DO NOT TEST
Walking aid used?	☐ No ☐ Yes → If yes, type: ☐ Cane/walking stick ☐ Quad cane ☐ Walker/Zimmer frame ☐ Rollator ☐ Other (specify) _____
Supplemental oxygen used?	☐ No ☐ Yes

Minimal inputs required to score the test

Field	Value
Course length	____ m
Number of completed laps	____ laps
Partial-lap distance at stopping point	____ m
Total active walking time, excluding time spent stopped or resting	____ s
Did the participant complete the full 6 minutes without early termination?	☐ Yes ☐ No

If early termination: time stopped (mm:ss) and reason(s) for stopping (select all that apply)	____ : ____ ☐ Participant sat while resting ☐ Participant declined to continue ☐ Examiner determined it was unsafe to continue ☐ Other (specify) _____

Do not calculate the total distance by hand on this form. Enter the number of completed laps, partial-lap distance, and total active walking time into the XPRIZE Healthspan Database. The total distance walked will be calculated automatically.

Adverse Events during or after the test

Symptom	Y / N	Symptom	Y / N
Chest pain	☐ Y ☐ N	Leg pain / cramps	☐ Y ☐ N
Feeling faint or dizzy	☐ Y ☐ N	Shortness of breath	☐ Y ☐ N

Notes:

4. Lap Tally and Rest Stops Worksheet Sample

Complete in ink at the time of testing.

Participant ID #1 (Subject ID)		**Participant ID #2**	
Site / Clinic ID		**Visit / Timepoint**	
Date of Test (DD-MMM-YYYY)		**Examiner Initials**	

Overall Test Timing

Start time	____ : ____ : ____ AM / PM	**Scheduled stop time**	____ : ____ : ____ AM / PM
Actual stop time	____ : ____ : ____ AM / PM	**Elapsed stopwatch time**	____ min ____ sec

Sample Lap Tally for 30-meter Course

Lap 0.5 (30m)	☐	Lap 5.5 (330m)	☐
Lap 1 (60m)	☐	Lap 6 (360m)	☐
Lap 1.5 (90m)	☐	Lap 6.5 (390m)	☐
Lap 2 (120m)	☐	Lap 7 (420m)	☐
Lap 2.5 (150m)	☐	Lap 7.5 (450m)	☐
Lap 3 (180m)	☐	Lap 8 (480m)	☐
Lap 3.5 (210m)	☐	Lap 8.5 (510m)	☐
Lap 4 (240m)	☐	Lap 9 (540m)	☐
Lap 4.5 (270m)	☐	Lap 9.5 (570m)	☐
Lap 5 (300m)	☐	Lap 10 (600m)	☐

Rest Stops

Stop	Stop elapsed time	Resume or end time	Duration sec	Reason symptoms or assistance
1	____ : ____	____ : ____	_____	_____
2	____ : ____	____ : ____	_____	_____
3	____ : ____	____ : ____	_____	_____

Clinical Protocol Acceptance Page

XPRIZE Healthspan

Clinical Protocol Title: Six Minute Walk Test (6MWT)

Version Number and Date: v1 13Oct2026

This document will be available on a publicly accessible website. SAB members, finalist teams, and their participating sites will be provided with the URL to access the document during the XPRIZE Healthspan competition. No account or login will be required.

*By signing below, I confirm that I have reviewed and **approved** this protocol from a scientific perspective for use by the finalist teams to collect participant data for XPRIZE Healthspan competition judging.*

XPRIZE Healthspan Leadership Approval

Jamie Justice, PhD. Executive VP of XPRIZE Health Domain

_____

Name, Credentials, Role ***eSignature & Date***

*By signing below, I confirm that I have reviewed and **endorsed** this protocol from a scientific perspective for use by the finalist teams to collect participant data for XPRIZE Healthspan competition judging.*

Utah Data Coordinating Center Endorsement

Alayne Markland, DO, MSc, Executive Director, Center of Aging

_____

Name, Credentials, Role ***eSignature & Date***

Huong Meeks, PhD, MStat, MPH, Assistant Professor

_____

Name, Credentials, Role ***eSignature & Date***