

Frequently Asked Questions (FAQs) About the Wheelchair Skills Test (WST)

Notes:

- Where appropriate, the questions have been edited for clarity. However, these are actual questions from people using the WST.
- The questions are in chronological order, not sorted by topic.

1. **Question:** A subject that I evaluated yesterday did the following: To enter his front door from outside, he pushed the door open “safely” away from him (did not use door jam), but then used both sides of the door frame to grab right and left side of door frame to thrust/sort of “catapult” himself through the door. The hand on the right side was positioned in the space between the door and the frame. The door, itself was stationary. Would you pass him on safety?

Answer: Yes, I would consider that "safe". What you are describing is the "sling-shot" approach, which is something we teach. He would only get a failure if he was at imminent risk of getting the fingers pinched (e.g. if he tried to close the door by putting his finger in the crack, or if the door was a self-closing one and looked like it was going to close on his fingers, requiring the spotter to intervene).

2. **Question:** If a subject has not ever attempted stairs in a wheelchair, how would you rate safety?

Answer: If the subject refuses/declines to perform a skill because he/she does not believe that he/she could perform it safely, the scores would be "fail" and "safe".

3. **Question:** Have you ever had testers get injuries?

Answer: If the WSP personnel are performing as they should, there should be minimal risk of injury. We haven't had any injuries to date, beyond the occasional bruise, abrasion or back kink when doing something improperly. If a tester has doubts about whether a skill can be attempted in a way that is safe for the subject and the tester, the tester should not permit the skill to be attempted or completed.

4. **Question:** For the "Gets through hinged door in both directions" skill, when you say 1.5m square on both sides of the door, do you mean it can be more than 1.5m and there is no real need to mark the floor with tape?

Answer: Correct. For the WST assessment, we want to give the subject adequate room to maneuver (i.e. at least 1.5m square). Extra space is fine.

5. **Question:** Our administrator feels that the WST should be done only by therapists. Are there any references that you have to suggest that the skills test can be accomplished by others?

Answer: Our philosophy is only that the person administering the WST should have the requisite knowledge and skills. We have not restricted certification to people with any particular pre-requisite training or degrees. OTs, PTs, Recreation Therapists and Rehab Nurses are ideal, because they are used to dealing with a wide range of people in wheelchairs so they have more experience to draw on. However, in many of the papers that we have used the WST for, we have simply trained students or research assistants to perform the test. However, administrators can set whatever standards they wish for their own institutions.

6. **Question:** Is there a cut off score for the WST that represents low vs. high skill, or "training required"?

Answer: No. The WST is just intended to provide data. What the clinician does with it is individualized depending upon age, diagnosis, setting, etc. Training may even be given on a skill already passed. These decisions are all mediated through the process of identifying achievable goals, a process in which the WST is only a part.

7. **Question:** Does the person who administers the WST need to be a qualified WST tester? If so, can you clarify how to become qualified?

Answer: We have deliberately designed the WST and WST-Q to be simple, so that any reasonably educated person could use the on-line materials to become sufficiently familiar with the tests to administer them in a reliable and valid way. As the WST developers, we do not require any formal certification. Specific jurisdictions or research project administrators may impose a requirement of certification. We offer an on-line knowledge examination to anyone who wishes to take it. Practical training is also available at workshops that we put on regularly.

8. **Question:** We are in the process of figuring out how to administer a validated WST-Q to our patients. It seems there are no individual algorithms for each skill. While the individual-skill section of the WST Manual indicates skill aspects, the table lists demonstrable skills rather than a verbal response from an individual on the skills which we are testing. How would we score the verbal description and know that the skill was performed safely?

Answer: Our intent is that the WST and WST-Q should be as comparable as possible when both are used to assess capacity (what the person *can* do, versus what they *do* do which is another issue). So, the goals of WST and WST-Q testers are the same, namely to satisfy themselves (the former by observation, the latter by interview) that the test subject is capable of meeting the performance and safety evaluation criteria.

9. **Question:** Using the WST-Q for a caregiver handling a powered wheelchair, for the item 'descending a 5 degree incline', a caregiver subject responded that yes she could do it. On questioning, she said she would disengage the motor and move the chair down the ramp from behind. I would score that as unsafe given the weight of a power wheelchair and the fact that this is a small 82 yr old woman. Do you agree?

Answer: There is not quite enough information to permit clear scoring. This might be safe or unsafe. If the test subject tells the tester that she'd done it on a number of occasions without having the chair get away from her, I'd give her a "safe pass". If she had never tried it, I'd give her an "unsafe fail". Although we do not teach or approve of disengaging the motors to descend an incline, it is conceivable that it could be done safely. It comes down to the specifics of the wheelchair occupant, the caregiver and the wheelchair. An important factor to consider is whether, when the motors are disengaged, the power wheelchair in question still has some friction resisting runaway or whether it goes into freewheel. When the motors of many powered wheelchairs are disengaged, they still provide some resistance ("friction") to being pushed. This resistance would slow the chair down to a safe crawl if going down an incline. Other powered wheelchairs allow the wheels to run much more freely when disengaged. If the latter, this would push the scoring in the direction of an "unsafe fail".

10. **Question:** Using the WST-Q for a wheelchair user handling a powered wheelchair, for the item 'roll backward 5m' in a powered wheelchair, a wheelchair user responded that yes she could do it. On further questioning, she explained that she would turn up the speed and go backwards. Although this doesn't directly conflict with anything in the manual regarding safety, I would tend to deem that unsafe. Agree?

Answer: There isn't quite enough information to permit clear scoring. I'd quiz the test subject about the answer, in particular the reason for increasing the speed and whether he/she had ever tried this. An unexpected answer like this is a red flag for me, suggesting that the respondent may be just speculating on what might work. However, an issue here is that the programming of a powered wheelchair is separate for the forward and backwards directions. It is quite possible that a wheelchair that has not been programmed correctly could have difficulty backing up unless the speed control was adjusted upward. Hopefully the tester could tease this out from the test subject by some further questioning.

11. **Question:** On the WST-Q, a wheelchair user with a transtibial amputation indicated that for some skills (reaching high object, transferring and getting up from the ground), he does not put on the brakes. On probing further, I determined that the chair sometimes drifts away from him, but that he always recovers and doesn't fall. I'm not sure if I should consider this safe or not?

Answer: Because the wheelchair user reported that there had been no need for spotter intervention, no fall and no injury, the score should be "safe". This only means that the wheelchair user has met the minimum criteria for the safe score. The comment section should be used to record your concern. Some training could result in the wheelchair user being safer when performing these skills.

12. **Question:** On the WST-Q, a wheelchair user reported that, when he goes up ramps there is usually a handrail so that he can pull himself up. How should this be scored?

Answer: The WST assesses inclines where no hand rails are available, so the interviewer should pursue that line of questioning before scoring.

13. **Question:** On the WST-Q, for the pressure relief skill a wheelchair user says he leans on his arm with a slight tilt to the side, but he doesn't believe that he relieves much pressure. I gave it a "pass" for capacity and a "fail" for safety. Was that correct?

Answer: We accept a sideways lean as an acceptable method of relieving pressure, if it can be sustained for at least 3 seconds. For the capacity test, the interviewer should probe a bit further to determine if the wheelchair user is capable of leaning far enough and for long enough. Re safety, as long as he doesn't fall out of the chair, tip it over or need spotter intervention to prevent those results, the score should be "safe". The WST safety score only looks at safety during the performance of the skill, not at the long-term potential for problems such as pressure sores.

14. **Question:** On the WST-Q for a powered wheelchair user, in relation to the pothole item, the subject said that he would slow down to go through the pothole. During the objective WST testing the subject realized that they had slowed down too much and were going to get stuck in the pothole so increased the speed (or changed drive mode, not sure which) and completed the task with no problem. In this case, I believe more probing was needed regarding did the subject mean simply slow the speed of the chair in its current drive mode (e.g., the one that they would be using outside), or did they mean choose a different drive mode? Slow down how much? The tester reported that, had the client not changed his tactic during objective testing, he would have gotten stuck in the pothole. So, if the subject during the questionnaire version actually meant slow down as much as he initially tried before self-correcting during objective testing, this would be a fail for performance and what about safety? A fail for safety too as they would need assistance to get out of the pothole?

Answer: This question raises a few points:

- First, the WST and the WST-Q can be used as two independent assessments or as a "blended" combination of the two. In your context, you were administering two separate tests, so what happens on one shouldn't influence the scoring of the other. We know that there are discrepancies between the two, much as we may attempt to minimize them.
- Second, for the WST-Q part of the question, when the subject reasonably reported that he would slow down for the approach to the pot-hole, a reasonable follow-up question would be to inquire about what he would do if he thereby didn't have enough power to get out of the pot-hole after getting into it. If the answer was that he would have adjusted the controls to access the extra power he needed, I would consider that a 'pass' on capacity and a 'safe' on safety.
- Third, for either the WST or WST-Q, if the wheelchair gets stuck in the pot-hole and requires assistance to get out of it, I would consider that 'safe'. The 'unsafe'

safety score is only for acute incidents like injury, trips, falls or spotter intervention to prevent those outcomes. The longer-term risk of dying of exposure if stuck in the pot-hole for an extended period is legitimate but not relevant for WST scoring. A note should be made in the Comment column to address pot-hole escape strategies during training.

15. **Question:** We have been finding the performance/capacity scale reasonably OK to score but are struggling a bit with accuracy with the safety score. Where we are struggling is further down the test when we are reaching tasks that are unable to be completed. In the scoring guide it says that a person can still score a safe mark if they choose not to complete the task because they feel it would be unsafe. For tasks that are not attempted it is then up to the scorer to determine if the skill would be safe or unsafe on interview alone. What happens if the client feels that all the remaining tasks would be unsafe and doesn't attempt any of them - would they score safe for everything then? Or would the scorer determine themselves that later skills would be unsafe and score them as unsafe? Where is the line between the client deciding the task is unsafe to perform and therefore the gets a safety pass, and where it is no longer up to the client, but that the scorer determines the safety?

Answer: If the WST test subject says that he or she would not attempt a skill because he or she believes it would be unsafe to do so, that is a wise (i.e. safe) decision. The proper score would 'fail' for performance and 'safe' for safety.

16. **Question:** Here is a WST-Q caregiver question. For the "roll 100m" item, the caregiver subject responded that yes, she could do that skill. When probed as to how, she responded that she would sit in the power wheelchair to move it 100m. Is that a pass? Or does the skill need to be performed with the wheelchair user in the chair? Do all caregiver skills need to be performed with the wheelchair user in the chair?

Answer: Yes, that is the intent of the caregiver WST and WSTP. That's not to say that a caregiver wouldn't benefit from being trained as a wheelchair user as well.

17. **Question:** If the person doesn't know how to engage/disengage the motor, it's "fail" for performance and "safe" for security? The real question is: Is it unsafe not to be able to indicate to someone else how to push the PWC?

Answer: If the person states that he/she doesn't know how to engage/disengage the motor it is a fail for performance and a safe for safety. According to the WST manual for this skill the 'general safety criteria apply'. Therefore, a safe score is awarded to a person who states that he/she cannot do or will not attempt a skill. When the WST is used as a means of identifying areas that require intervention, then your concern would be addressed, as the individual would be taught the skill of engaging and disengaging the motor.

18. **Question:** For a participant with visual impairment who has a service dog and it's the dog who picks the object off the floor and gives it to the participant, are the scores "pass" and "safe"?

Answer: As per the WST manual, "If an animal (e.g., service dog) is used to assist with a skill, the animal is considered a caregiver, not an 'aid'."

19. **Question:** On the WST-Q, "moving turns" skill the subject could not understand the task, despite my explanations ... His answer was unclear. Do I have to (score this item) 'non-rated'?

Answer: For the WST-Q, the defaults are 'fail' for capacity and 'unsafe' for safety. The onus is on the test subject to convince the tester that he or she deserves a pass and/or a safe score. I don't think the tester has done anything wrong. However, I can understand why a 'testing error' score might be a good option.

20. **Question:** On the WST-Q, "pothole" skill, the subject said 'I look first, I go into the hole, I stop and start again ..?' How should this be scored?"

Answer: It depends on the torque setting of his chair. Did you probe further? Sometimes you need to keep probing until you are sure of the subject's performance and safety of the task. Sounds like a safe pass to me.

21. **Question:** On the WST-Q for a powered wheelchair, the "selects drive modes and speeds" skill, the subject could only describe how to change modes but not speed.

Answer: Assuming there is a way to change speed beyond using different modes, this would be a 'fail' for performance and 'safe' for safety.

22. **Question:** For the WST-Q, we have a caregiver that is a power wheelchair user, but is also able to stand and walk limited distances. For many of the skills, she reported that she would put her husband's chair into freewheel and push it. However, for some skills she reported that she doesn't have the strength to push her husband's chair (e.g., soft surface and ramp inclines) and that she would remain in her chair and push her husband's chair with her chair/feet (using her chair's power). What are your thoughts on that?

Answer: Sounds like an unsafe/fail to me. On an objective WST, the tester should not permit this method due to concerns about the safety of the caregiver's feet.

23. **Question:** For scoring WST videos for inter- and intra-rater reliability, when the skill involves staying within the boundaries of taped lines on the floor, does the video need to capture all of the lines so that the rater can explicitly see that the chair has stayed within the boundaries? Or is the rater free to reasonably assume that the subject stayed within the boundaries based on the view he/she has?

Answer: This is one of the problems with video scoring, namely that key information may be out of view. It becomes a judgment call for the tester whether to score as a TE or, if a minor testing error ("no harm, no foul"), to let it go. If in doubt, the TE would be the more justifiable call. The videographer should be encouraged to get into a position that allows the recording of such key information.

24. **Question:** For the WST-Q, on the "gets from ground into wheelchair" skill, if the caregiver (the test subject) gives verbal cues and some physical support, but the wheelchair user is somewhat mobile himself and they work in tandem to accomplish this skill, is it Pass/Safe?

Answer: For this skill and the transfer skill, for the caregiver test we don't assume that the wheelchair user is a passive object. The WST is intended to be specific to the test circumstances -- this user, this caregiver, this wheelchair, this time frame, etc. I'd probably give it a pass/safe but note in the comment section the relative contributions of the user and caregiver.