



# Exam 7

## Short Physical Performance Battery

Participant ID #:

Acrostic:

Technician ID:

Date:  /  /   
Month Day Year

Interviewer ID:

All of the tests should be performed in the same order as they are presented in this protocol. Instructions to the participant are shown in bold and should be given exactly as they are written in this script.

I would now like you to try to move your body in different movements. I will first describe and show each movement to you. Then I'd like you to try to do it. If you cannot do a particular movement, or if you feel it would be unsafe to try to do it, tell me and we'll move on to the next one. Let me emphasize that I do not want you to try to do any movement that you feel might be unsafe. Do you have any questions before we begin?

Time at start of form administration:  :  ☐ AM ☐ PM  
Hr Min

### Section 1: Balance Tests

**Balance Tests.** The participant must be able to stand unassisted without the use of a cane or walker. You may help the participant to get up.

**Side-by-Side:** Now I will show you the first movement. (Demonstrate) I want you to try to stand with your feet together, side-by-side, for about 10 seconds. You may use your arms, bend your knees, or move your body to maintain your balance, but try not to move your feet. Try to hold this position until I tell you to stop. Stand next to the participant to help him/her into the side-by-side position. Supply just enough support to the participant's arm to prevent loss of balance. When the participant has his/her feet together, ask "Are you ready?" Then let go and begin timing as you say "Ready, begin." Stop the stopwatch and say "Stop" after 10 seconds or when the participant steps out of position or grabs your arm. If participant is unable to hold the position for 10 seconds, record result and go to the gait speed test.

#### A. Side-by-side-stand

- ☐ Held 10 seconds (1 point) —→ Go to B. Semi-tandem stand
- ☐ Held <10 seconds (0 points) —→ Go to Section 2: Gait speed test
- ☐ Not attempted (0 points) —→

If participant could not complete or did not attempt test, select the reason below:

- |  |   |
|--|---|
| <input type="radio"/> Tried but unable                       | <input type="radio"/> Participant unable to understand instructions |
| <input type="radio"/> Could not hold position unassisted     | <input type="radio"/> Other, specify: _____                         |
| <input type="radio"/> Not attempted, you felt unsafe         | <input type="radio"/> Participant refused                           |
| <input type="radio"/> Not attempted, participant felt unsafe |   |

Go to Section 2, gait speed test

Number of seconds held if less than 10:  .  sec



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**Semi-Tandem.** Now I will show you the second movement. *(Demonstrate)* I want you to try to stand with the side of the heel of one foot touching the big toe of the other foot for about 30 seconds. You may put either foot in front, whichever is more comfortable for you. You may use your arms, bend your knees, or move your body to maintain your balance, but try not to move your feet. Try to hold this position until I tell you to stop. Stand next to the participant to help him/her into the semi-tandem position. Supply just enough support to the participant's arm to prevent loss of balance. When the participant has his/her feet positioned, ask "Are you ready?" Then let go and begin timing as you say "Ready, begin." Stop the stopwatch and say "Stop" after 30 seconds or when the participant steps out of position or grabs your arm. If participant is unable to hold the position for 10 seconds, record result and go to the gait speed test.

#### B. Semi-Tandem Stand

- ☐ Held 30 seconds (1 point) → Go to D. Tandem stand LONG
- ☐ Held  $\geq 10$  but  $< 30$  seconds (1 point) → Go to C. Tandem stand SHORT
- ☐ Held  $< 10$  sec (0 points) → Go to Section 2: Gait speed test
- ☐ Not attempted (0 points) ↓

If participant could not complete or did not attempt test, select the reason below:

- |  |   |
|--|---|
| <input type="radio"/> Tried but unable                       | <input type="radio"/> Participant unable to understand instructions |
| <input type="radio"/> Could not hold position unassisted     | <input type="radio"/> Other, specify: _____                         |
| <input type="radio"/> Not attempted, you felt unsafe         | <input type="radio"/> Participant refused                           |
| <input type="radio"/> Not attempted, participant felt unsafe |   |

Go to gait speed test

Number of seconds held if less than 30:  .  sec



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**Tandem SHORT (if semi-tandem held for 10 to 29.99 seconds).** Now I will show you the third movement. *(Demonstrate)* I want you to try to stand with the heel of one foot in front of and touching the toes of the other foot for about 10 seconds. You may put either foot in front, whichever is more comfortable for you. You may use your arms, bend your knees, or move your body to maintain your balance, but try not to move your feet. Try to hold this position until I tell you to stop. Stand next to the participant to help him/her into the tandem position. Supply just enough support to the participant's arm to prevent loss of balance. When the participant has his/her feet positioned, ask **"Are you ready?"** Then let go and begin timing as you say **"Ready, begin."** Stop the stopwatch and say **"Stop"** after 10 seconds or when the participant steps out of position or grabs your arm. Record result and go to the gait speed test.

#### C. Tandem Stand SHORT

- ☐ Held 10 seconds (2 points) —————> Go to Section 2: Gait speed test
- ☐ Held  $\geq 3$  — 9.99 seconds (1 point) —————> Go to Section 2: Gait speed test
- ☐ Held <3 seconds (0 points) —————> Go to Section 2: Gait speed test
- ☐ Not attempted (0 points) —————>

If participant could not complete or did not attempt test, select the reason below:

- |  |   |
|--|---|
| <input type="radio"/> Tried but unable                       | <input type="radio"/> Participant unable to understand instructions |
| <input type="radio"/> Could not hold position unassisted     | <input type="radio"/> Other, specify: _____                         |
| <input type="radio"/> Not attempted, you felt unsafe         | <input type="radio"/> Participant refused                           |
| <input type="radio"/> Not attempted, participant felt unsafe |   |

**Go to Section 2: Gait speed test**

Number of seconds held if less than 30:  .  sec



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### Short Physical Performance Battery

**Tandem LONG (if semi-tandem held for 30 seconds).** Now I will show you the third movement. *(Demonstrate)* I want you to try to stand with the heel of one foot in front of and touching the toes of the other foot for about 30 seconds. You may put either foot in front, whichever is more comfortable for you. You may use your arms, bend your knees, or move your body to maintain your balance, but try not to move your feet. Try to hold this position until I tell you to stop. Stand next to the participant to help him/her into the tandem position. Supply just enough support to the participant's arm to prevent loss of balance. When the participant has his/her feet positioned, ask "Are you ready?" Then let go and begin timing as you say "Ready, begin." Stop the stopwatch and say "Stop" after 30 seconds or when the participant steps out of position or grabs your arm. If participant is unable to hold position for 30 seconds on either trial, record result and go to the gait speed test.

#### D. Tandem Stand LONG

##### Trial 1

- ☐ Held 30 seconds (2 points) —→ Go to E. 1 leg stand
- ☐ Held  $\geq 10$  but <30 seconds (2 points) —→ Go to trial 2
- ☐ Held  $\geq 3$  but <10 seconds (1 point) —→ Go to trial 2
- ☐ Held  $\geq 1$  but <3 seconds (1 point) —→ Go to trial 2
- ☐ Held <1 second or unable to attain position (0 points) —→ Go to Section 2: Gait speed test
- ☐ Not attempted —→

If participant could not complete or did not attempt test, select the reason below:

- |  |   |
|--|---|
| <input type="radio"/> Tried but unable                       | <input type="radio"/> Participant unable to understand instructions |
| <input type="radio"/> Could not hold position unassisted     | <input type="radio"/> Other, specify: _____                         |
| <input type="radio"/> Not attempted, you felt unsafe         | <input type="radio"/> Participant refused                           |
| <input type="radio"/> Not attempted, participant felt unsafe |   |

**Go to Section 2: Gait speed test**

Number of seconds held if less than 30:  .  sec

##### Trial 2

- ☐ Held 30 seconds —→ Go to E. 1 leg stand
- ☐ Held  $\geq 1$  but <30 seconds —→ Go to Section 2: Gait speed test
- ☐ Held <1 second or unable to attain position —→ Go to Section 2: Gait speed test
- ☐ Not attempted —→

If participant could not complete or did not attempt test, select the reason below:

- |  |   |
|--|---|
| <input type="radio"/> Tried but unable                       | <input type="radio"/> Participant unable to understand instructions |
| <input type="radio"/> Could not hold position unassisted     | <input type="radio"/> Other, specify: _____                         |
| <input type="radio"/> Not attempted, you felt unsafe         | <input type="radio"/> Participant refused                           |
| <input type="radio"/> Not attempted, participant felt unsafe |   |

**Go to Section 2: Gait speed test**

Number of seconds held if less than 30:  .  sec



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**One Leg.** Now I will show you the fourth movement. *(Demonstrate)* I want you to try to stand on one leg for about 30 seconds. You may stand on either leg, whichever is more comfortable for you. You may use your arms, bend your knees, or move your body to maintain your balance, but try not to move your foot. Try to hold this position until I tell you to stop. If you lose your balance, put your foot down. Stand next to the participant to help him/her into the position. Supply just enough support to the participant's arm to prevent loss of balance. When the participant has his/her leg lifted, ask "Are you ready?" Then let go and begin timing as you say "Ready, begin." Stop the stopwatch and say "Stop" after 30 seconds or when the participant lowers leg to the floor or grabs your arm.

#### E. One Leg Stand

##### Trial 1

- ☐ Held 30 seconds → **Go to Section 2: Gait speed test**
- ☐ Held  $\geq 1$  but  $< 30$  seconds → **Go to trial 2**
- ☐ Held  $< 1$  second or unable to attain position → **Go to Section 2: Gait speed test**
- ☐ Not attempted →

If participant could not complete or did not attempt test, select the reason below:

- ☐ Tried but unable
- ☐ Could not hold position unassisted
- ☐ Not attempted, you felt unsafe
- ☐ Not attempted, participant felt unsafe
- ☐ Participant unable to understand instructions
- ☐ Other, specify: \_\_\_\_\_
- ☐ Participant refused

**Go to Section 2: Gait speed test**

Number of seconds held if less than 30:  .  sec

##### Trial 2

- ☐ Held 30 seconds → **Go to Section 2: Gait speed test**
- ☐ Held  $\geq 1$  but  $< 30$  seconds → **Go to trial 2**
- ☐ Held  $< 1$  second or unable to attain position → **Go to Section 2: Gait speed test**
- ☐ Not attempted →

If participant could not complete or did not attempt test, select the reason below:

- ☐ Tried but unable
- ☐ Could not hold position unassisted
- ☐ Not attempted, you felt unsafe
- ☐ Not attempted, participant felt unsafe
- ☐ Participant unable to understand instructions
- ☐ Other, specify: \_\_\_\_\_
- ☐ Participant refused

**Go to Section 2: Gait speed test**

Number of seconds held if less than 30:  .  sec



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### Short Physical Performance Battery

#### Section 2: Gait Speed Test

**First Gait Speed Test.** Now I am going to observe how you normally walk. If you use a cane or other walking aid and you feel you need it to walk a short distance, then you may use it. This is our walking course. I want you to walk to the other end of the course at your usual speed, just as if you were walking down the street to go to the store. *Demonstrate the walk for the participant.* **Walk all the way past the other end of the tape before you stop.** I will walk with you. **Do you feel this would be safe?** Have the participant stand with both feet touching the starting line. **When I want you to start, I will say: "Ready? Begin."** When the participant acknowledges this instruction say **"Ready? Begin."** Start timing when the participant lifts their foot to begin walking. Walk behind and to the side of the participant. Stop timing when the heel of the first foot completely crosses the end line.

##### A. First Gait Speed Test (sec)

Time for first 4 meter walk (seconds):  .

If participant could not complete or did not attempt test, select the reason below:

- |  |   |
|--|---|
| <input type="radio"/> Tried but unable                       | <input type="radio"/> Participant unable to understand instructions |
| <input type="radio"/> Could not hold position unassisted     | <input type="radio"/> Other, specify: _____                         |
| <input type="radio"/> Not attempted, you felt unsafe         | <input type="radio"/> Participant refused                           |
| <input type="radio"/> Not attempted, participant felt unsafe |   |

Aids used for first walk:

- ☐ None  
☐ Cane  
☐ Other (specify): \_\_\_\_\_

**Second Gait Speed Test.** Now I want you to repeat the walk. Remember to walk at your usual pace, and go all the way past the other end of the course. Have the participant stand with both feet touching the starting line. **When I want you to start, I will say "Ready? Begin."** When the participant acknowledges this instruction say: **"Ready? Begin."** Start timing when the participant lifts their foot to begin walking. Walk behind and to the side of the participant. Stop timing when the heel of the first foot completely crosses the end line.

##### B. Second Gait Speed Test (sec)

Time for first 4 meter walk (seconds):  .

If participant could not complete or did not attempt test, select the reason below:

- |  |   |
|--|---|
| <input type="radio"/> Tried but unable                       | <input type="radio"/> Participant unable to understand instructions |
| <input type="radio"/> Could not hold position unassisted     | <input type="radio"/> Other, specify: _____                         |
| <input type="radio"/> Not attempted, you felt unsafe         | <input type="radio"/> Participant refused                           |
| <input type="radio"/> Not attempted, participant felt unsafe |   |

Aids used for first walk:

- ☐ None  
☐ Cane  
☐ Other (specify): \_\_\_\_\_

**Faster of two times**  .  seconds



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#### 4 Meter Walk SPPB Score

- ☐ Time > 8.70 secs = 1      ☐ Time 4.82 to 6.20 secs = 3      ☐ Unable to do = 0
- ☐ Times 6.21 to 8.70 secs = 2      ☐ Time < 4.82 secs = 4

#### Section 3: Narrow Walk Test (4 meters)

**Narrow Walk Test.** Now I am going to observe how you walk keeping your feet inside the lines. I want you to walk to the other end of the course at your usual speed. It is important that you do your best to keep your feet inside the lines. *Demonstrate the walk for the participant. Be sure to walk a few steps past the finish line. I will walk with you. Do you feel this would be safe? Have the participant stand with both feet touching the starting line. When I want you to start, I will say "Ready? Begin." When the participant acknowledges this instruction say "Ready? Begin." Start timing when the participant lifts their foot to begin walking. Walk behind the participant so that you can see if either foot touches a line. Stop timing when the first foot (heel) is completely across the end line. "Not staying within the lines" is defined as stepping on, or going outside of the colored tape two or more times. A wall touch is considered stepping on the line. Perform a maximum of 3 trials to obtain 2 valid trials.*

##### Trial 1

Was the walk completed?

- ☐ Yes: \_\_\_\_\_ →
- ☐ No: \_\_\_\_\_ ↓

Did the participant stay within the lines? ("Not staying within the lines" is defined as stepping on, or going outside of the colored tape two or more times. Perform up to 3 trials to obtain 2 valid times.)

- ☐ Yes:   .   seconds
- ☐ No

If participant could not complete or did not attempt test, select the reason below:

- |  |   |
|--|---|
| <input type="radio"/> Tried but unable                       | <input type="radio"/> Participant unable to understand instructions |
| <input type="radio"/> Could not hold position unassisted     | <input type="radio"/> Other, specify: _____                         |
| <input type="radio"/> Not attempted, you felt unsafe         | <input type="radio"/> Participant refused                           |
| <input type="radio"/> Not attempted, participant felt unsafe |   |

**Go to Section 4: Chair stand test if not completed or not attempted**



## Exam 7

### Short Physical Performance Battery

#### Trial 2

Was the walk completed?

☐ Yes: \_\_\_\_\_ →

☐ No: \_\_\_\_\_  
↓

Did the participant stay within the lines? (*“Not staying within the lines” is defined as stepping on, or going outside of the colored tape two or more times. Perform up to 3 trials to obtain 2 valid times.*)

☐ Yes:   .   seconds

☐ No

If participant could not complete or did not attempt test, select the reason below:

- |  |   |
|--|---|
| <input type="radio"/> Tried but unable                       | <input type="radio"/> Participant unable to understand instructions |
| <input type="radio"/> Could not hold position unassisted     | <input type="radio"/> Other, specify: _____                         |
| <input type="radio"/> Not attempted, you felt unsafe         | <input type="radio"/> Participant refused                           |
| <input type="radio"/> Not attempted, participant felt unsafe |   |

**Go to Section 4: Chair stand test if not completed or not attempted**

#### Trial 3

Was the walk completed?

☐ Yes: \_\_\_\_\_ →

☐ No: \_\_\_\_\_  
↓

Did the participant stay within the lines? (*“Not staying within the lines” is defined as stepping on, or going outside of the colored tape two or more times. Perform up to 3 trials to obtain 2 valid times.*)

☐ Yes:   .   seconds

☐ No

If participant could not complete or did not attempt test, select the reason below:

- |  |   |
|--|---|
| <input type="radio"/> Tried but unable                       | <input type="radio"/> Participant unable to understand instructions |
| <input type="radio"/> Could not hold position unassisted     | <input type="radio"/> Other, specify: _____                         |
| <input type="radio"/> Not attempted, you felt unsafe         | <input type="radio"/> Participant refused                           |
| <input type="radio"/> Not attempted, participant felt unsafe |   |

**Go to Section 4: Chair stand test if not completed or not attempted**





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#### Section 4: Chair Stand Test

**Single Chair Stand Test.** Let's do the last movement test. Do you think it would be safe for you to try to stand up from a chair? The next test measures the strength in your legs. *(Demonstrate and explain the procedure.)* **First, fold your arms across your chest and sit so that your feet are flat on the floor; then stand up, keeping your arms folded across your chest.** *When the participant is properly seated, say "Please stand up keeping your arms folded across your chest." If the participant cannot rise without using arms, say "Okay, try to stand up using your arms." Record result and end test.*

##### Single Chair Stand Test

Does the participant feel safe enough to stand without help?

- ☐ Yes ☐ No

Mark the result:

- ☐ Participant stood without using arms → **Go to repeated chair stand test**
- ☐ Participant used arms to stand → **End Test**
- ☐ Test not completed →

If participant could not complete or did not attempt test, select the reason below:

- |  |   |
|--|---|
| <input type="radio"/> Tried but unable                       | <input type="radio"/> Participant unable to understand instructions |
| <input type="radio"/> Could not hold position unassisted     | <input type="radio"/> Other, specify: _____                         |
| <input type="radio"/> Not attempted, you felt unsafe         | <input type="radio"/> Participant refused                           |
| <input type="radio"/> Not attempted, participant felt unsafe |   |

**End test**



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**Repeated Chair Stand Test.** Do you think it would be safe for you to try to stand up from a chair five times without using your arms? *(Demonstrate and explain the procedure)* Please stand up straight as **QUICKLY** as you can five times, without stopping in between. After standing up each time, sit down and then stand up again. Keep your arms folded across your chest. I'll be timing you with a stopwatch. Let me demonstrate. When the participant is properly seated, say "Ready? Stand." Begin timing. Count out loud as the participant arises each time, up to five times. Stop if participant becomes tired or short of breath during repeated chair stands. Stop the stopwatch when he/she has straightened up completely for the fifth time. Also stop if participant: 1) uses his/her arms; 2) after 1 minute, if participant has not completed all five rises; or 3) at your discretion, if concerned for participant's safety. If the participant stops and appears to be fatigued before completing the five stands, confirm this by asking "Can you continue?" If the participant says "yes", continue timing. If the participant says "no", stop the test.

#### Repeated Chair Stand Test

Does the participant feel safe enough to stand without help?

- ☐ Yes ☐ No

Time (seconds) to complete 5 stands:   .    
*(only enter if participant completes 5 stands)*

If participant could not complete or did not attempt test, select the reason below:

- |  |   |
|--|---|
| <input type="radio"/> Tried but unable                       | <input type="radio"/> Participant unable to understand instructions |
| <input type="radio"/> Could not hold position unassisted     | <input type="radio"/> Other, specify: _____                         |
| <input type="radio"/> Not attempted, you felt unsafe         | <input type="radio"/> Participant refused                           |
| <input type="radio"/> Not attempted, participant felt unsafe |   |

#### Chair Stand SPPB Score

- ☐ Participant unable to complete 5 chair stands or completes stands in >60 sec: **0 points**
- ☐ Time  $\geq$  16.70 sec: **1 point**
- ☐ Time 13.70 to 16.69: **2 points**
- ☐ Time 11.20 to 13.69 sec: **3 points**
- ☐ Time  $\leq$  11.19 sec: **4 points**

#### Total SPPB Score

Balance Test score \_\_\_\_\_ points

Gait Speed Test score \_\_\_\_\_ points

Chair Stand Test score \_\_\_\_\_ points

=

Total Score \_\_\_\_\_ points (sum of points above)