ENRGISE PILOT STUDY: SHORT PHYSICAL PERFORMANCE BATTERY (SPPB)

Visit Date Completed	Rev:
	DE:
Staff ID	Date:

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

Now, let's begin the evaluation. 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 might 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? Where was this test performed? $_1 \square$ Clinic $_2 \square$ Recruitment Event $_3 \square$ Home $_4 \square$ Other \rightarrow Specify		
	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 STAND	1.1. SIDE BY SIDE STAND SCORE:	
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.	$\begin{array}{c c} & & & \\ 1 & & \\ 1 & & \\ 1 & & \\ 2 & & \\ 2 & & \\ 2 & & \\ 2 & & \\ 2 & & \\ 2 & & \\ 2 & & \\ 2 & & \\ 2 & & \\ 2 & & \\ 3 & & \\ 4 & & \\ 3 & & \\ 1 & & \\ 3 & & \\ 3 & & \\ 3 & & \\ 3 & & \\ 3 & & \\ 3 & & \\ 1 & & \\ 3 & & \\ 4 & & \\ 1 & &$	
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 the participant is unable to hold the	 6 Not attempted, you (assessor) felt unsafe (why→) 7 Not attempted, Pt unable to understand instructions 8 Not attempted, Other, specify (specify→) 9 Not attempted, Pt refused 	
position for 10 seconds, record result and go to Section 2.	GO to Section 2: Gait Speed Test	

Section 1: BALANCE TESTS Continued		
SEMI-TANDEM STAND	1.2. SEMI-TANDEM STAND SCORE:	
Now I will show you the second movement.	¹ Held for 10 secs (Go to Q1.3)	
Demonstrate – I want you to try to stand with the heel of one foot touching the big toe of the other foot for	$_2$ Not held for 10 secs \rightarrow Go to Section 2	
about 10 seconds. You may put either foot in front, whichever is more comfortable to you. You may use your arms, bend your knees, or move your body to	 ³ Not attempted, tried but unable ⁴ Not attempted, could not hold position unassisted ⁵ Not attempted, Pt felt unsafe 	
maintain your balance, but try not to move your feet. Try to hold this position until I tell you to stop.	⁶ Not attempted, you (assessor) felt unsafe (<i>why</i> →)	
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	7 Not attempted, Pt unable to understand instructions	
the participant has his/her feet together, ask "Are you ready?" Then let go and begin timing as you say, "Ready, begin."	8 Not attempted, Other, specify (specify→)	
Stop the stopwatch and say "Stop" after 10 seconds, or when the participant steps out of position or grabs your arm. If the participant is unable to hold the position for 10 seconds, record result and go to Section 2.	9 Not attempted, Pt refused GO to Section 2: Gait Speed Test	
TANDEM STAND	1.3. TANDEM STAND SCORE:	
Now I will show you the third movement.	$_{1}$ Held for 10 seconds (Go to Section 2)	
Demonstrate — I want you to try to stand with the heel of one foot in front of and touching the other foot for about 10 seconds. You may put either foot in front,	² Held for 3-9.99 secs → ³ Held for <3 secs → <i>Go to Section 2</i>	
whichever is more comfortable to you. You may use your arms, bend your knees, or move your body to	$_4\square$ Not attempted, tried but unable	
maintain your balance, but try not to move your feet.	$_5$ Not attempted, could not hold position unassisted	
Try to hold this position until I tell you to stop.	$_6$ Not attempted, Pt felt unsafe	
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 together, ask "Are you ready?" Then let go and begin timing as you say, "Ready, begin."	⁷ Not attempted, you (assessor) felt unsafe (why→)	
	8 Not attempted, Pt unable to understand instructions	
	⁹ Not attempted, Other, specify (<i>specify</i> \rightarrow)	
Stop the stopwatch and say "Stop" after 10 seconds, or when the participant steps out of position or grabs your arm. If the participant is unable to hold the position for	$_{10}$ Not attempted, Pt refused GO to Section 2: Gait Speed Test	
10 seconds, record result and go to Section 2.	GO to section 2. Guit speed rest	

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 usere walking down the street to go to the store. 2.1. Length of walk test course: Image: the start of the course at your usual speed, just as if you usere walking down the street to go to the store. 2.1. Length of walk test course: Demonstrate the walk for the participant. 2.1. Length of walk test course: Walk all the way past the other end of the course 2.2. Do you feel this would be safe? 2 3 meters (if 4m course is unavailable) 2 No you feel this would be safe? 2 No you feel this would be safe? 3 No → END TEST, Go to Q2.9 4 If Yes 2 No Time → Go to Q2.5 2.4. Did the participant stand with both feet touching the starting line. When			
other end of the course at your usual speed, just as if you were walking down the street to go to the store. 1 □ 4 meters (in all clinical assessments) 2□ 3 meters (if 4m course is unavailable) Demonstrate the walk for the participant. Walk all the way past the other end of the course before you stop. I will walk with you. Do you feel this would be safe? I□ Yes 2□ No → END TEST, Go to Q2.9 FIRST GAIT SPEED TEST 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." Press the start/stop button to start the stopwatch when the participant's foot starts to move across the starting line. Walk behind and to the side of the participant. Stop timing when one of the participant's feet is completely across the end line.	Section 2: 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.		
before you stop. I will walk with you. Do you feel this would be safe?1Yes 2INO \rightarrow END TEST, Go to Q2.9EIRST GAIT SPEED TEST2.3. Time for walk1Have the participant stand with both feet touching the starting line.2.3. Time for walk1When I want you to start, I will say: "Ready, begin."2.4. Did the participant use a cane or walking aid?When the participant acknowledges this instruction say "READY, BEGIN."1Cane 2Press the start/stop button to start the stopwatch when the participant's foot starts to move across the starting line.1Cane 2Walk behind and to the side of the participant.2.5. If participant did not attempt or was unable to complete the test, give reason and go to Q2.9:Walk behind and to the side of the participant.1Not attempted, Pt felt unsafe (why 5Stop timing when one of the participant's feet is completely across the end line.Not attempted, Pt unable to understand	other end of the course at your usual speed, just as if you were walking down the street to go to the store.	$_{1}$ 4 meters (in all clinical assessments)	
Have the participant stand with both feet touching the starting line.2.3. Time for walk $\Box \Box \Box$ SecondsWhen I want you to start, I will say: "Ready, begin."1 No Time \rightarrow Go to Q2.5When I want you to start, I will say: "Ready, begin."1 No Time \rightarrow Go to Q2.5When the participant acknowledges this instruction say "READY, BEGIN."1 Cane 2 Other \rightarrow SpecifyPress the start/stop button to start the stopwatch 	before you stop. I will walk with you. Do you feel this	1 Yes	
When I want you to start, I will say: "Ready, begin." $1 \Box$ Yes \rightarrow When the participant acknowledges this instruction say "READY, BEGIN." $1 \Box$ Cane $2 \Box$ Other \rightarrow SpecifyPress the start/stop button to start the stopwatch when the participant's foot starts to move across the starting line.2.5. If participant did not attempt or was unable to complete the test, give reason and go to Q2.9:Walk behind and to the side of the participant.1 \Box Not attempted, tried but unable $2 \Box$ Not attempted, tried but unable $3 \Box$ Not attempted, Pt could not walk unassisted $3 \Box$ Not attempted, Pt felt unsafe $4 \Box$ Not attempted, you (assessor) felt unsafe $(why \rightarrow _$ $5 \Box$ Not attempted, Pt unable to understand	Have the participant stand with both feet touching the	$_1\square$ No Time \rightarrow Go to Q2.5	
$_{6}$ Not attempted, Other, specify (<i>specify</i> →	When I want you to start, I will say: "Ready, begin."When the participant acknowledges this instruction say "READY, BEGIN."Press the start/stop button to start the stopwatch when the participant's foot starts to move across the starting line.Walk behind and to the side of the participant's feet is	$ \begin{array}{c} 1 & Yes \rightarrow \\ 2 & No \end{array} \begin{array}{c} 1 & Cane \\ 2 & Other \rightarrow Specify _____ \end{array} \end{array} $ 2.5. If participant did not attempt or was unable to complete the test, give reason and go to Q2.9: $ \begin{array}{c} 1 & Not attempted, tried but unable \\ 2 & Not attempted, Pt could not walk unassisted \\ 3 & Not attempted, Pt felt unsafe \\ 4 & Not attempted, you (assessor) felt unsafe \\ (why \rightarrow ___) \\ 5 & Not attempted, Pt unable to understand instructions \\ 6 & Not attempted, Other, specify \\ (specify \rightarrow ___) \\ 7 & Not attempted, Pt refused \end{array} $	

Section 2: GAIT SPEED TEST Continued		
<u>SECOND GAIT SPEED TEST</u>	2.6. Time for walk	
Now I want you to repeat the walk. Remember to walk at your usual pace, and go all the way past the	$_1\Box$ No time \rightarrow Go to Q2.8	
other end of the course.	2.7. Did the participant use a cane or walking aid?	
Have the participant stand with both feet touching the starting line.	$ \begin{array}{c c} _{1} \square & \text{Yes} \rightarrow & _{1} \square & \text{Cane} \\ \hline \\ _{2} \square & \text{No} & _{2} \square & \text{Other} & \rightarrow Specify \end{array} $	
When I want you to start, I will say: "Ready, begin."	2.8. If participant did not attempt or was unable to	
When the participant acknowledges this instruction say "READY, BEGIN."	complete the test, give reason: $_1$ Not attempted, tried but unable	
Press the start/stop button to start the stopwatch when the participant's foot starts to move across the starting line.	$_{2}$ Not attempted, Pt could not walk unassisted $_{3}$ Not attempted, Pt felt unsafe	
Walk behind and to the side of the participant.	⁴ Not attempted, you (assessor) felt unsafe (why \rightarrow)	
Stop timing when one of the participant's feet is	$_5$ Not attempted, Pt unable to understand instructions	
completely across the end line.	$_{6}$ Not attempted, Other, specify (<i>specify</i> \rightarrow)	
	$_7\Box$ Not attempted, Pt refused	
	GO to Q2.9	
GAIT SPEED TEST SCORING Record the shorter time between the two walks (If	2.9. What is the time for the faster of the two walks?	
Record the shorter time between the two walks. (If only one walk done, record that time.)	Seconds	
	$_1\square$ No time	
	GO to Section 3: Chair Stand Test	

Section 3: CHAIR STAND TEST	
SINGLE CHAIR STAND TEST	3.1. Do you feel this would be safe?
Let's do the last movement test. Do you think it would be safe for you to try to stand up from a chair?	₁□ Yes
	$_{2}$ No \rightarrow END TEST
	3.2. SINGLE CHAIR STAND RESULTS:
<i>This next test measures the strength in your legs.</i>	$_1\square$ Participant stood without using arms, (Go to Q3.3)
(Demonstrate and explain the procedure.)	$_2\square$ Participant used arms to stand $\rightarrow END TEST$
	$_{3}$ \Box Not attempted, unable to stand unassisted \rightarrow <i>END TEST</i>
First, fold your arms across your chest and sit so that your feet are on the floor; then stand up keeping your arms folded across your chest.	$_4\square$ Not attempted, Pt felt unsafe $\rightarrow END TEST$
	$_{5}$ Not attempted, you (assessor) felt unsafe \rightarrow END TEST (why \rightarrow)
<i>Please stand up keeping your arms folded across your chest.</i> (record result in Q3.2)	$_{6}$ Not attempted, Pt unable to understand instructions \rightarrow END TEST
If the participant cannot rise without using arms, say "Okay, try to stand up using your	⁷ Not attempted, Other, specify $\rightarrow END TEST$ (<i>specify</i> \rightarrow)
arms."	$_{8}$ Not attempted, Pt refused $\rightarrow END TEST$
This is the end of the test. Record result in Q3.2.	

Section 3: CHAIR STAND TEST Continued	
REPEATED CHAIR STAND TEST	3.3. Do you feel it would be safe to stand 5 times?
Do you think it would be safe for you to try to	1 Yes
stand up from a chair 5 times without using your arms?"	$_2 \square$ No \rightarrow END TEST
	3.4. REPEATED CHAIR STAND RESULTS:
(Demonstrate and explain the procedure.)	Time to Complete
Please stand up straight as QUICKLY as you can 5 times, without stopping in between. After standing up each time, sit down and then stand	$_1\square$ Completed 5 stands \rightarrow
up again. Keep your arms folded across your	$_2\Box$ Attempted but did not complete 5 stands
chest. I'll be timing you with a stopwatch.	$_{3}$ Not attempted, unable to stand unassisted
When the participant is properly seated, say	⁴ Not attempted, Pt felt unsafe
"Ready? Stand" Start the stopwatch.	₅ Not attempted, you (assessor) felt unsafe
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	(why→)
	$_6\Box$ Not attempted, Pt unable to understand instructions
	$_7\Box$ Not attempted, Other, specify
stands.	$(specify \rightarrow \)$
<i>Stop the stopwatch when he/she has straightened up completely for the 5th time.</i>	$_8\square$ Not attempted, Pt refused
straightened up completely for the 5° time.	
Also stop:	
 If participant uses his/her arms. After 1 minute, if participant has not all 5 	
 After 1 minute, if participant has not all 5 rises. 	
• At your discretion, if concerned for	
participant's safety.	
If the participant stops and appears to be	
fatigued before completing the 5 stands, confirm this by asking "Can you continue?"	