# Alternate Course 400 Meter Walk (Follow-up Visits) 

## CRF 1.1

Stopping Criteria for 400 Meter Walk: If the participant reports chest pain, tightness or pressure, significant shortness of breath or difficulty breathing, or feeling faint, lightheaded or dizzy, stop the test. Record the reason for stopping.

OBSERVATIONS OF 400 METER WALK
Accompany the subject to the starting line of the 400 meter walk with script and stop watch.
Describe the 400 meter walk:
Script: "Now I would like to observe how you normally walk. You will be walking $\qquad$ [insert number of total laps from worksheet] complete laps around the course, which corresponds to about $1 / 4$ mile. I would like you to walk at your usual pace and without overexerting yourself. During this test, I will ask you to rate how hard you feel you are working. When I ask you to rate how hard you are working during the walk, I want you to think about the total feeling of exertion in your overall body, including your breathing and muscles. At the end of lap __ [insert the lap number for Level of Effort question (5e) from alternate 400 m walk course worksheet], while you continue walking, I will ask you how hard you are working. After you have completed all __ [insert number of total laps from worksheet] laps, I will tell you to stop, ask you to rate the difficulty of your breathing, and then measure your heart rate. If you develop chest pain or significant shortness of breath, or are too uncomfortable to continue, please stop walking and tell me. If you need to, you may stand in place and rest for a few moments, but you may not lean against the wall or any other surface."

Did subject bring a cane,


Attempt Script: " I would like you to attempt this test without your cane (or walker)." , Only a single straight cane may be used for the test; a walker may not be used.
If subject is hesitant or indicates that s/he cannot do the test: "You don't need to complete the test but I would like you to try it, even if you only take a few steps. I will be right beside you."

1. Would you be willing to try the test and see how you feel?
2. Did participant bring a single straight cane?

2a. Would you be willing to try the test if you could use your cane?

3.Remember, you don't need to complete the test, but I
would like you to try it, even
No (Go to Q13)
if you only take a few steps. I
will be right beside you. Can

- 6 Permanently Missing
you give it a try?
Demonstration Script: 'I will demonstrate 1 lap." After completing demonstration, ask : 'Do you have any questions?'"
[For subjects who did not bring a cane or other walking aid]
Is subject hesitant or indicates that s/he hesitant_w400 cannot do the test?

1 Yes (Go to Q4)
0 No (Proceed with test)
-6 Permanently Missing
4. You don't need to complete the test, but I would like you to try it, even if you only take a few steps. I will be right beside you. Can you give it a try?
safetry_w400
-9
1 Yes (Proceed with test)
0 No (Go to Q13)
-6 Permanently Missing

begin the test may proceed:
When subject indicates they feel ready to begin, the test may proceed:
Script: "I will walk [beside] behind you, When I say "GO', start walking at a comfortable pace you can maintain. Ready, Go."
Start the stop watch when the subject takes their first step. For safety purposes, examiner should be close enough to subject to be able to provide help should subject falter during test, but not so close as to dictate the pace of the test. For every lap, the examiner should offer standard encouragement, and call out the number of laps completed and number remaining.
Script: "You're doing a good job. You have completed __ laps and have __ to go."
If the participant feels they need to stop and rest, they may stand in one place and rest. Participant should not lean on wall, table or any surface other than their cane. If they do lean, they should be immediately instructed not to do so and the test can continue. If participant needs to lean on wall, table or other surface for a second time during the rest stop or needs to lean again on a subsequent rest stop, stop the test (go to \#7).

After 30 seconds, ask them if they can continue walking. If they can, continue the walk and note the rest on the form. (go on to \#6)

If the participant appears to be in obvious distress or pain, you may recommend that he/she stand in place and rest for a moment. If they need to rest longer, have them continue to stand. After another 30 seconds, ask them if they can continue walking. If they can, continue the walk and note the rest stop on the form. (go on to \#6)

If they cannot continue after a 60 second rest or if they need to sit down, stop the test. (go on to \#7)
There is no limit to the number of rest stops as long as they can complete the walk without sitting. (record all stops on \#6)

If the participant requests their cane, allow them to complete the test with the cane, and indicate below that a cane was used.

| Course Info \& Calculations |  |
| :--- | :--- |
| 1 Lap = Distance (in meters) from cone to cone and back again (2 X distance between cones) or distance of the full circle if <br> doing a round course in the home |  |
| 5a. | What is the distance for 1 lap? L = lap_w400_c |
| 5b. | meters (minimum of 10 meters required) |
|  | What is the total number of laps to walk 400meters? 400/L = laptotal_w400_c |
| 5c. | What type of course is this? course_w400_c |





Script: I would like to remind you to walk at your usual pace without overexerting yourself. If you develop chest pain or significant shortness of breath, or are too uncomfortable to continue, please stop walking and tell me. If you need to, you may stand in place and rest for a few moments.
6. For each rest stop, Mark an $X$ corresponding to the length of time of the rest (standing rests only):

| Rest | reststp1_w400 |
| :---: | :---: |
| stop | -9 |
| number | $1<30 \mathrm{sec}$ |
| number | $231-60 \mathrm{sec}$ |
| $1:$ | $3>60 \mathrm{sec}$ (test stopped) |
|  | -6 Permanently Missing |


| Rest | reststp2_w400 |
| :---: | :---: |
| stop | -9 |
| number | $1<30 \mathrm{sec}$ |
|  | $231-60 \mathrm{sec}$ |
| 2 : | $3>60 \mathrm{sec}$ (test stopped) |
|  | -6 Permanently Missing |

Rest reststp3_w400

| stop | -9 |  |
| :--- | ---: | :--- |
| number | 1 | $<30 \mathrm{sec}$ |
| 3: | 2 | $31-60 \mathrm{sec}$ |
|  | 3 | $>60 \mathrm{sec}$ (test stopped) |
|  | -6 | Permanently Missing |



| Rest | reststp4_w400 |
| :--- | :--- |
| stop | -9 |
| number | 1 |
| < | $<30 \mathrm{sec}$ |
| $4:$ | 2 |
| 3 | $31-60 \mathrm{sec}$ |
|  |  |
|  | -6 |
|  |  |
|  |  |
|  |  |
|  | Permanently Missing |



| Rest | reststp6_w400 |  |
| :--- | :--- | :--- |
| stop | -9 |  |
| number | 1 | $<30 \mathrm{sec}$ |
| $6:$ | 2 | $31-60 \mathrm{sec}$ |
|  | 3 | $>60 \mathrm{sec}$ (test stopped) |
|  | -6 | Permanently Missing |


| Rest | reststp7_w400 |  |
| :--- | :--- | :--- |
| stop | -9 |  |
| number | 1 | $<30 \mathrm{sec}$ |
| $7:$ | 2 | $31-60 \mathrm{sec}$ |
|  | 3 | $>60 \mathrm{sec}$ (test stopped) |
|  | -6 | Permanently Missing |



| Rest | reststp8_w400 |  |
| :--- | :--- | :--- |
| stop | -9 |  |
| number | 1 | $<30 \mathrm{sec}$ |
| $8:$ | 2 | $31-60 \mathrm{sec}$ |
|  | 3 | $>60 \mathrm{sec}$ (test stopped) |
|  | -6 | Permanently Missing |



| Rest | reststp9_w400 |  |
| :--- | :--- | :--- |
| stop | -9 |  |
| number | 1 | $<30 \mathrm{sec}$ |
| $9:$ | 2 | $31-60 \mathrm{sec}$ |
|  | 3 | $>60 \mathrm{sec}$ (test stopped) |
|  | -6 | Permanently Missing |



| Rest | reststp10_w400 |
| :--- | :--- |
| stop | -9 |



Total Number of stops: tot_stop_w400
7. If the test is terminated prior to the subject completing 400 meters, the point at which they stopped should be marked, and the subject accompanied to the nearest chair. After the subject is comfortably seated, their accomplished distance should be measured.

Complete laps will be counted as the number of meters in one lap and the remaining incomplete lap should be measured with the Redi-Measure. Record the total distance and time at termination of test.
walk_comp_w400
-9
1 Yes
0 No (specify)
-6 Permanently Missing

If No, Number of laps completed: lapscomp_w400_c $\square$
Distance walked $=$ m_cmp_w400 $\quad$ M
8. TIME to walk 400 meters or to stopping the test: walk_min_w400 Minutes walk_sec_w400 Seconds
a. Did the participant use a straight cane during the test? device_w400
-9
1 Yes
0 No
-6 Permanently Missing

## BORG Index

"This is a scale that asks you to rate the difficulty of your breathing. It starts at number 0 , where your breathing is causing you no difficulty at all, and progresses through to number 10 , where your breathing difficulty is maximal. How much difficulty is your breathing causing you right now?"

Ask the participant to specifically choose a number between 0 and 10 , rather than the verbal descriptor.

| Borg Grade borg_w400 |
| :--- |
| $-9-$ |
| 0 | Nothing at all $\quad$. 0.5 - Very, very slight (just noticeable)

## 9. Sitting Radial Pulse: beats per 30 seconds X2 = end_hr_w400 bpm

10. If test stopped early, ask: "Why did you feel you couldn't continue?"

| Shortness of stp_brth_w400 value="1" <br> breath <br> Chest Pain stp_chst_w400 value="1" | Feeling Faint or stp_fnt_w400 value="1" <br> Dizzy <br> $\square$ |
| :---: | :---: |
| Fatigue stp_fat_w400 value="1" |  |
| Leg Pain stp_leg_w400 value="1" | $\square$ |
| $\square$ | Other stp_oth_w400 value="1" |


11. At end of walk ask, "Is there anything bothering you?"

> end_both_w400
-9
1 Yes (specify) 0 No
-6 Permanently Missing
If Yes, please specify what: end_bospc_w400
12. Observed Symptoms at end of walk: (check all that apply)

Shortness obs_brth_w400 value="1" Unsteadiness obs_unst_w400 value="1" Other obs_oth_w400 value="1"



Signs of obs_disc_w400 value="1"
discomfort $\Gamma$
Specify Other obs_otspc_w400
13. Comments (If the participant does not attempt or complete the walk, please a detailed explanation about why the walk was not attempted or completed. Also, if the participant did not attempt the 400 m walk, IT IS VERY IMPORTANT to administer the Assistive Device Questionnaire and attempt the 4 m walk test of the SPPB.)


Have the participant complete (i.e. self administer) the Efficacy for Walking instrument immediately following the 400 M Walk at the 12- and 30-month follow up clinic visits. At the follow up assessment visits, the Efficacy for Walking instrument should be completed even if the participant did not finish the 400 M Walk.

Source Form Language: lang $-9$


## Alternate Course 400 Meter Walk (Follow-up Visits)

Stopping Criteria for 400 Meter Walk: If the participant reports chest pain, tightness or pressure, significant shortness of breath or difficulty breathing, or feeling faint, lightheaded or dizzy, stop the test. Record the reason for stopping.

## OBSERVATIONS OF 400 METER WALK

Accompany the subject to the starting line of the 400 meter walk with script and stop watch. Describe the 400 meter walk:

Script: "Now I would like to observe how you normally walk. You will be walking [insert number of total laps from worksheet] complete laps around the course, which corresponds to about $1 / 4$ mile. I would like you to walk at your usual pace and without overexerting yourself. During this test, I will ask you to rate how hard you feel you are working. When I ask you to rate how hard you are working during the walk, I want you to think about the total feeling of exertion in your overall body, including your breathing and muscles. At the end of lap __ [insert the lap number for Level of Effort question (5e) from alternate 400 m walk course worksheet], while you continue walking, I will ask you how hard you are working. After you have completed all $\qquad$ [insert number of total laps from worksheet] laps, I will tell you to stop, ask you to rate the difficulty of your breathing, and then measure your heart rate. If you develop chest pain or significant shortness of breath, or are too uncomfortable to continue, please stop walking and tell me. If you need to, you may stand in place and rest for a few moments, but you may not lean against the wall or any other surface."


| Did subject bring a cane, walker, or other walking aid? | $\begin{array}{l}\square \\ \\ \\ \\ \\ \text { Yes } \rightarrow \text { Go to Attempt Script } \\ \text { No } \rightarrow \text { Go Demonstration Script }\end{array}$ |
| :--- | :--- |

Attempt Script: "I would like you to attempt this test without your cane (or walker)." Only a single straight cane may be used for the test; a walker may not be used.
If subject is hesitant or indicates that s/he cannot do the test: "You don't need to complete the test, but I would like you to try it, even if you only take a few steps. I will be right beside you."

| 1. Would you be willing to try the test and see how you feel? | Yes $\longrightarrow$ Go to Demonstration Script No $\longrightarrow$ Go to Q2 |
| :---: | :---: |
| 2. Did participant bring a single straight cane? | Yes $\longrightarrow$ Go to Q2a <br> No $\longrightarrow$ Go to Q13 |
| 2a. Would you be willing to try the test if you could use your cane? | Yes $\longrightarrow$ Go to Demonstration Script No $\longrightarrow$ Go to Q3 |
| 3. Remember, you don't need to complete the test, but I would like you to try it, even if you only take a few steps. I will be right beside you. Can you give it a try? | Yes $\longrightarrow$ Go to Demonstration Script <br> No $\longrightarrow$ Go to Q13 |

Demonstration Script: "I will demonstrate 1 lap." After completing demonstration, ask: "Do you have any questions?"
[For subjects who did not bring a cane or other walking aid]

| Is subject hesitant or indicates that s/he cannot do the test? | $\square$ <br> $\square$ Yes $\longrightarrow$ Go to Q4 |
| :--- | :--- | :--- |
| No $\rightarrow$ Proceed with test |  |

> When subject indicates they feel ready to begin, the test may proceed:
> Script: "I will walk [beside] behind you. When I say 'GO", start walking at a comfortable pace you can maintain. Ready, Go."

Start the stop watch when the subject takes their first step. For satety purposes, examiner should be close enough to subject to be able to provide help should subject falter during test, but not so close as to dictate the pace of the test. For every lap, the examiner should offer standard encouragement, and call out the number of laps completed and number remaining.
Script: "You're doing a good job. You have completed __ laps and have __ to go."

| Participant ID |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (affix ID label here) |

If the participant feels they need to stop and rest, they may stand in one place and rest. Participant should not lean on wall, table or any surface other than their cane. If they do lean, they should be immediately instructed not to do so and the test can continue. If participant needs to lean on wall, table or other surface for a second time during the rest stop or needs to lean again on a subsequent rest stop, stop the test (go to \#7).

After 30 seconds, ask them if they can continue walking. If they can, continue the walk and note the rest on the form. (go on to \#6)
If the participant appears to be in obvious distress or pain, you may recommend that he/she stand in place and rest for a moment. If they need to rest longer, have them continue to stand. After another 30 seconds, ask them if they can continue walking. If they can, continue the walk and note the rest stop on the form. (go on to \#6)
If they cannot continue after a 60 second rest or if they need to sit down, stop the test. (go on to \#7)
There is no limit to the number of rest stops as long as they can complete the walk without sitting. (record all stops on \#6)
If the participant requests their cane, allow them to complete the test with the cane, and indicate below that a cane was used.

## Course Info \& Calculations

1 Lap = Distance (in meters) from cone to cone and back again (2 X distance between cones) or distance of the full circle if doing a round course in the home

5a. What is the distance for 1 lap? $L=$ $\square$ meters (minimum of 10 meters required)

5b. What is the total number of laps to walk 400 meters? $400 / \mathrm{L}=$ $\square$

5 c . What type of course is this? $\square$ Linear $\square$ Circular

5d. Encouragement ( N ) should be given at which laps? 40/L $=\mathrm{N}$ $\square$ (rounded to nearest whole number) (Give count of laps and encouragement according to standard protocol at every N laps)

5e. Which lap should Level of Effort be asked per standard protocol below? $\mathrm{N} \times 4=$ $\square$

| Participant ID |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (affix ID label here) |

## When an accelerometer is used please provide the following:



Please tell me how hard you feel you are working right now.
Is it "light", "somewhat hard", "hard" or "very hard"?

5 f.

1. Light
2. Somewhat hard
3. Hard
4. Very Hard
(If the participant reports "hard" or "very hard", read script below)

Script: I would like to remind you to walk at your usual pace without overexerting yourself. If you develop chest pain or significant shortness of breath, or are too uncomfortable to continue, please stop walking and tell me. If you need to, you may stand in place and rest for a few moments.
6. For each rest stop, Mark an X corresponding to the length of time of the rest (standing rests only):

| Rest stop number 1: | $<30$ sec. | 31-60 sec. | $>60$ seconds <br> (test stopped) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rest stop number 2: | $\square$ | $\square$ | $\square$ |  |  |
| Rest stop number 3: | $\square$ | $\square$ | $\square$ |  |  |
| Rest stop number 4: | $\square$ | $\square$ | $\square$ |  |  |
| Rest stop number 5: | $\square$ | $\square$ | $\square$ |  |  |
| Rest stop number 6: | $\square$ | $\square$ | $\square$ |  |  |
| Rest stop number 7: | $\square$ | $\square$ | $\square$ |  |  |
| Rest stop number 8: | $\square$ | $\square$ | $\square$ |  |  |
| Rest stop number 9: | $\square$ | $\square$ | $\square$ |  |  |
| Rest stop number 10: | $\square$ | $\square$ | $\square$ |  |  |
| Total number of stops: |  |  |  |  | $\square$ |


7. If the test is terminated prior to the subject completing 400 meters, the point at which they stopped should be marked, and the subject accompanied to the nearest chair. After the subject is comfortably seated, their accomplished distance should be measured.

Complete laps will be counted as the number of meters in one lap and the remaining incomplete lap should be measured with the Redi-Measure. Record the total distance and time at termination of test.

Did the participant complete the 400 meter walk?
(Record time that first foot crosses the finish line.)
8. TIME to walk 400 meters or to stopping the test:


8a. Did the participant use a straight cane during the test? $\square$


## BORG Index

"This is a scale that asks you to rate the difficulty of your breathing. It starts at number 0, where your breathing is causing you no difficulty at all, and progresses through to number 10, where your breathing difficulty is maximal. How much difficulty is your breathing causing you right now?"

Ask the participant to specifically choose a number between 0 and 10, rather than the verbal descriptor.
Borg Grade $\quad \square \quad \square$ Don't Know $\quad \square_{\text {Refused }}$

| Borg Grade | Dyspnea descriptor |
| :---: | :--- |
| 0 | Nothing at all |
| 0.5 | Very, very slight (just noticeable) |
| 1 | Very slight |
| 2 | Slight |
| 3 | Moderate |
| 4 | Somewhat severe |
| 5 | Severe |
| 6 | Very severe |
| 7 | Very, very severe (almost maximal) |
| 8 | Maximal |
| 9 |  |


9. Sitting Radial Pulse: beats per 30 seconds $\mathrm{X} 2=$ $\square$ bpm
10. If test stopped early, ask: "Why did you feel you couldn't continue?"

| Shortness of Breath | $\square$ |
| :--- | :--- |
| Chest Pain | $\square$ |
| Leg Pain | $\square$ |


| Feeling Faint or Dizzy | $\square$ |
| :--- | :--- |
| Fatigue | $\square$ |
| Other: (Specify) | $\square$ |

11. At end of walk ask, "Is there anything bothering you?"

If yes, please specify what:
12. Observed Symptoms at end of walk: ( X all that apply)

| Shortness of breath | $\square$ |
| :--- | :--- |
| Wheezing / dyspnea | $\square$ |
| Signs of discomfort | $\square$ |


| Unsteadiness | $\square$ |
| :--- | :--- |
| Sweating | $\square$ |


| Other: | $\square$ |
| :--- | :--- |
| No symptoms observed | $\square$ |

13. Comments (If the participant does not attempt or complete the walk, please a detailed explanation about why the walk was not attempted or completed. Also, if the participant did not attempt the 400 m walk, IT IS VERY IMPORTANT to administer the Assistive Device Questionnaire and attempt the 4 m walk test of the SPPB.)
$\qquad$
Have the participant complete (i.e. self administer) the Efficacy for Walking instrument immediately following the 400 M Walk at the 12- and 30-month follow up clinic visits. At the follow up assessment visits, the Efficacy for Walking instrument should be completed even if the participant did not finish the 400 M Walk.
