

Protocol ID: _____

Study Name: _____

Site: _____

Event Name: _____

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Interviewer Name: _____

Interview Date: _____

BLSA Biodex Knee Strength - Ver. 1.0**Section Title: Eligibility****Instructions:****Eligibility**

Date Completed

☐ Blank

Tester ID

INTRODUCTION and ELIGIBILITY ASSESSMENT: "This machine is a dynamometer (we call it the Biodex, after the manufacturer) and is used to measure strength in various muscle groups. In this session, we will measure the strength of the muscle groups in your upper legs using three sets of tests, that I'll describe as we get to them. Before starting, I will ask you a few questions to make sure it is safe for you to do this test."

Examiner Chart Review

1. Does the participant's BP obtained during PE exceed 220/115mmHg? ☐ Yes ☐ No ☐ Don't know Click to deselect entryIf YES, DO NOT TEST

2. From DXA testing, is the bone mineral density T-score of either hip more than four standard deviations below the population mean or less than 0.5 g/cm-squared? ☐ Yes ☐ No ☐ Don't know Click to deselect entryIf YES, DO NOT TEST

Questions for Participant

3. Has a doctor ever told you that you had an aneurysm in the brain? ☐ Yes ☐ No ☐ Don't know Click to deselect entryIf YES, DO NOT TEST

4. Has a doctor told you that you had a cerebral hemorrhage in the last 6 months? ☐ Yes ☐ No ☐ Don't know Click to deselect entryIf YES, DO NOT TEST

4a. Have you had any low back pain in the past year that limited your activity for at least 10 days? ☐ Yes ☐ No ☐ Don't know Click to deselect entryIf YES, DO NOT TEST

5. Have you had knee surgery on either leg where all or part of the joint was replaced? ☐ Yes ☐ No ☐ Don't know Click to deselect entry

5a. **If yes**, was the surgery on your right, left or both knees? ☐ Right ☐ Left ☐ Both ☐ Don't know

6. Have you had an injury that made one leg weaker than the other? ☐ Yes ☐ No ☐ Don't know Click to deselect entry

6a. **If yes**, which leg is stronger? ☐ Right ☐ Left ☐ Don't know

7. Is it difficult to bend or straighten either of your knees fully due to pain, arthritis, injury or some other condition? ☐ Yes ☐ No ☐ Don't know Click to deselect entry

7a. **If yes**, which knee? ☐ Right ☐ Left ☐ Both ☐ Don't know

Prior Visit Report

8. Which leg was tested at the participant's most recent BLSA visit in which Kin-Com testing was performed? ☐ Right ☐ Left ☐ Both ☐ Don't know ☐ First time

Manual Muscle Test

9. Did you have any pain in your right, left, or both knees that stopped you from pushing hard?

- ☐ Right test Left only
- ☐ Left test Right only
- ☐ Both Do not test
- ☐ No test both sides
- ☐ Don't know Go to Biodex exam

Select Randomization List

- ☐ Biodex Right Kin-com Left Kin-com right
- ☐ Biodex Left Kin-com Right Kin-com Left
- ☐ Kin-com Right Kin-com Left Biodex Right
- ☐ Kin--com Left Kin-com Right Biodex Left

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Section Title: Right Leg**Instructions:**

Tester ID

Eligibility

Date Completed

Manual Positioning Settings: *Dynamometer settings used previously may be printed below. Please position the dynamometer exactly as before (if information is available). Refer to the operations manual for procedures on determining settings if no previous settings are available or changes are necessary. In this case enter (or overwrite) settings below:*

10a. Seat bottom depth (In)

10b. Lever arm (In)

10c. Limb weight (Nm)

Concentric/Concentric Test: "For this test you will be moving with the machine, kicking out as hard as you can until the machine stops and then, when I tell you to start, pulling back in as hard as you can with the machine the entire way back to the starting position. You will be doing this action three times for each of two test speeds, one slow and one fast We will start with a few practice tests first."

11a. Was right leg tested ☐ Yes ☐ No [Click to deselect entry](#)11b. Trials attempted at 30 degrees? ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4+ [Click to deselect entry](#)11c. Trials attempted at 180 degrees? ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4+ [Click to deselect entry](#)

11d. Reason not done: ☐ Ineligible ☐ Refused ☐ Technical ☐ No Tester ☐ Time ☐ Don't know [Click to deselect entry](#)

Eccentric/Eccentric "For the second test you will be moving against the machine. For the first part of the movement, you will kick towards the chair as the lever arm is moving towards the stop position. Keep kicking back the entire time the arm is moving up. For the second part of the movement, you will be kicking up towards the ceiling while the lever is moving toward the start position. Keep kicking up the entire time the lever arm is moving back to the start position. As in the previous test, you will be doing this action three times for each of the same two test speeds. We will start with a few practice tests."

12a. Was right leg tested ☐ Yes ☐ No [Click to deselect entry](#)

12b. Trials attempted at 30 degrees? ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4+ [Click to deselect entry](#)

12c. Trials attempted at 180 degrees? ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4+ [Click to deselect entry](#)

12d. Reason not done: ☐ Ineligible ☐ Refused ☐ Technical ☐ No Tester ☐ Time ☐ Don't know [Click to deselect entry](#)

Isometric Test: "For the last test you will be kicking out as hard as you can and holding that position for three seconds each time. The lever arm will be in a fixed positions and will not move. You will be doing this action three times for each of two test angles. There will be NO practice tests."

13a. Was right leg tested ☐ Yes ☐ No [Click to deselect entry](#)

13b. Trials attempted at 120 degrees? ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4+ [Click to deselect entry](#)

13c. Trials attempted at 140 degrees? ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4+ [Click to deselect entry](#)

13d. Reason not done: ☐ Ineligible ☐ Refused ☐ Technical ☐ No Tester ☐ Time ☐ Don't know [Click to deselect entry](#)

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Section Title: Left Leg**Instructions:**

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Eligibility

Date Completed

Manual Positioning Settings: *Dynamometer settings used previously may be printed below. Please position the dynamometer exactly as before (if information is available). Refer to the operations manual for procedures on determining settings if no previous settings are available or changes are necessary. In this case enter (or overwrite) settings below:*

20a. Seat bottom depth (In)

20b. Lever arm (In)

20c. Limb weight (Nm)

Concentric/Concentric Test: "For this test you will be moving with the machine, kicking out as hard as you can until the machine stops and then, when I tell you to start, pulling back in as hard as you can with the machine the entire way back to the starting position. You will be doing this action three times for each of two test speeds, one slow and one fast We will start with a few practice tests first."

21a. Was left leg tested ☐ Yes ☐ No Click to deselect entry21b. Trials attempted at 30 degrees? ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4+ Click to deselect entry21c. Trials attempted at 180 degrees? ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4+ Click to deselect entry

21d. Reason not done: ☐ Ineligible ☐ Refused ☐ Technical ☐ No Tester ☐ Time ☐ Don't know [Click to deselect entry](#)

Eccentric/Eccentric "For the second test you will be moving against the machine. For the first part of the movement, you will kick towards the chair as the lever arm is moving towards the stop position. Keep kicking back the entire time the arm is moving up. For the second part of the movement, you will be kicking up towards the ceiling while the lever is moving toward the start position. Keep kicking up the entire time the lever arm is moving back to the start position. As in the previous test, you will be doing this action three times for each of the same two test speeds. We will start with a few practice tests."

22a. Was right leg tested ☐ Yes ☐ No [Click to deselect entry](#)

22b. Trials attempted at 30 degrees? ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4+ [Click to deselect entry](#)

22c. Trials attempted at 180 degrees? ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4+ [Click to deselect entry](#)

22d. Reason not done: ☐ Ineligible ☐ Refused ☐ Technical ☐ No Tester ☐ Time ☐ Don't know [Click to deselect entry](#)

Isometric Test: "For the last test you will be kicking out as hard as you can and holding that position for three seconds each time. The lever arm will be in a fixed positions and will not move. You will be doing this action three times for each of two test angles. There will be NO practice tests."

23a. Was left leg tested ☐ Yes ☐ No [Click to deselect entry](#)

23b. Trials attempted at 120 degrees? ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4+ [Click to deselect entry](#)

23c. Trials attempted at 140 degrees? ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4+ [Click to deselect entry](#)

23d. Reason not done: ☐ Ineligible ☐ Refused ☐ Technical ☐ No Tester ☐ Time ☐ Don't know [Click to deselect entry](#)

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