

## Attachment 37

### Strength Knee Extension

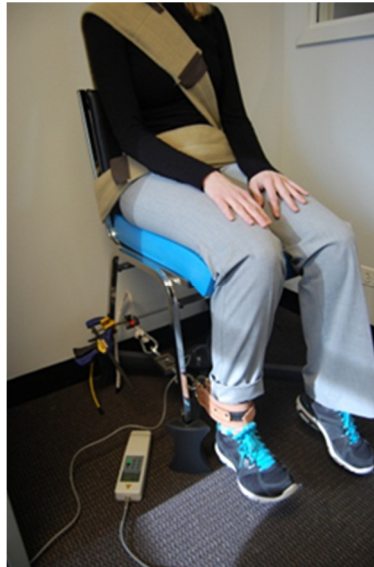
**Name of test:** Strength HHD Knee Extension

**Estimated time burden:** 10 minutes (including set-up and instructions)

Description:

This is a measure of lower extremity strength.

Set-up:



Administration Instructions and Demonstration:

The examiner explains to the participant: **“Now, we are going to measure the strength in your legs. Please have a seat in this chair (indicate the raised chair) and put on these seat belts. (show participant lap belt and shoulder strap)I can help you if necessary.”**

The examiner shows the seated participant the measuring device and says, **“This is a machine (device) that measures how strong your legs are. I will help you put your leg in the cuff and then when I say ‘go,’ I want you to push your leg out against it, as if you were straightening your knee.”** The cuff should be positioned around the participant’s lower leg just above the malleoli (the rounded bony parts on each side of the ankle joint). It may be easier to put the cuff on and off if the participant removes his/her shoes (again, explain the procedure and ask permission before removing shoes). Once the cuff is on, say, **“You will do this two times with each leg.**

**Your leg won't move, but the machine will show how hard you pushed. Do you have any questions?"**

There is one practice trial and one test trial for each leg. The examiner will have the participant complete a practice trial followed by a test trial with the right leg and then switch to the left leg for one practice trial followed by a test trial.

Practice Trial Right Leg: After the demonstration, make sure the cuff is around the leg just above the malleoli and say, **"Now, we're going to practice with your right leg. When I say 'go,' take a second or two and push your leg out as if you were straightening your knee. Since this is practice, push hard but not as hard as you can. Continue until I say 'stop.' Ready? 3-2-1-go."** After about 3-4 sec, say, "Stop."

Test Trial Right Leg: Say, **"Now we're going to see how strong your right leg is. When I say 'go,' I want you to take a second or two to push as hard as you can; continue to push your leg out as hard as you can until I say stop. Ready? 3-2-1-go. Harder, harder, harder."** After about 3-4 sec, say, "Stop."

After the test trial, record force to the nearest tenth of a pound on the record sheet and move the cuff to the left leg.

Practice Trial Left Leg: After performing the task twice with the right leg, attach the cuff to the left leg and say, **"OK, now we're going to practice with your left leg. When I say 'go,' I want you to take a second or two and push your leg out as if you were straightening your knee. Since this is practice, push hard but not as hard as you can. Continue until I say 'stop.' Ready? 3-2-1-go."** After about 3-4 sec, say, "Stop."

Test Trial Left Leg: Say, **"OK, now we're going to see how strong your left leg is. When I say 'go,' I want you to take a second or two to push as hard as you can; continue to push your leg out as hard as you can until I say 'stop.' Ready? 3-2-1-go. Harder, harder, harder."** After about 3-4 sec, say, "Stop."

After the test trial, record force to the nearest tenth of a pound on the record sheet, remove the cuff from the participant's leg, and help the participant get off the chair.