

## Attachment 36

### Grip Strength Dynamometry

**Name of test:** Grip Strength Dynamometry

**Estimated time burden:** 5 minutes (including set up and instructions)

Materials:

Laptop  
Dynamometer  
Chair  
Record Form  
Clipboard

Description:

This is a measure of upper extremity strength.

Set-up:

Turn on the dynamometer and press **TEST**. For adults and children, set the dynamometer on the 2<sup>nd</sup> notch. The dynamometer needs to be RESET between each trial.

Administration Instructions:

Have the participant sit down in the chair so that her/his feet are on the floor or foot plate of the wheelchair and her/his knees are at a 90-degree angle and say, “Now we will be using this machine to measure how strong your hands are. I will have you squeeze the handle 2 times (1practice and 1 test trial) with each hand while your arm is against your side and your elbow is bent like this (90 degrees). The handle won’t move, but the machine will show how hard you squeezed. See?” Show the participant the force measurement. “Do you have any questions?”

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Practice:

Say, “**Let’s practice; first we’ll use this** (point to the dominant, say your right or left as appropriate for the participant) **hand. When I say ‘squeeze,’ I want you to squeeze the handle hard but not as hard as you can.**” Examiner should support the dynamometer during testing (see picture above).

Continue, “**Ready? 3-2-1-squeeze.**” After 3-4 seconds, say, “**Stop.**” Press **RESET** and **TEST** on the dynamometer before the next trial.

Continue, “**Now we’ll practice with your other hand. When I say ‘squeeze,’ I want you to squeeze the handle hard but not as hard as you can.**” Examiner should support the dynamometer during testing (see picture above).

Continue, “**Ready? 3-2-1-squeeze.**” After 3-4 seconds, say, “**Stop.**” Press **RESET** and **TEST** on the dynamometer before the next trial.

Test Trial (dominant):

Say, “**Now we’re going to test each hand, beginning with this** (point to the dominant, say your right or left, as appropriate for the participant) **hand. When I say ‘squeeze’, this time I want you to squeeze the handle as hard as you can.**” Examiner should support the dynamometer during testing (see picture above).

Continue, “**Ready? 3-2-1-squeeze! Harder, harder, harder.**” After 3-4 seconds, say, “**Stop.**”

Record the force exerted to the nearest tenth of a pound on the record sheet for later transfer to the computer. Press **RESET** and **TEST** on the dynamometer before the next trial.

Test Trial (non-dominant):

Say, “**OK, now we’re going to test your other hand. When I say ‘squeeze,’ this time I want you to squeeze the handle as hard as you can.**” Examiner

should support the dynamometer during testing (see picture above).

Continue, “**Ready? 3-2-1-squeeze! Harder, harder, harder.**” After 3-4 seconds, say, “**Stop.**”

Record the force exerted to the nearest tenth of a pound on the record sheet for later transfer to the computer.

**Turn off** the dynamometer when testing is completed.