

Hand Function Test

The Jamar Hand Function Test is a seven-part, timed diagnostic test to determine the level of hand function. The seven subjects include:

- Writing
- Stacking
- Simulating page turning
- Lifting large, lightweight objects
- Lifting small objects
- Lifting large, heavy objects
- Simulated feeding

Instructions:

The key to proper administration of the Jamar Hand Function Test is consistency. In order to ensure accurate results, each subtest must be reproduced exactly as described in these directions.

All tests should be performed with the subject seated at an appropriate height table, in a comfortable chair, with adequate lighting.

Subtests must be administered using standardized verbal instructions. All tests should be performed with the non-dominant hand first, followed by the dominant hand. Identify which hand is dominant and non-dominant in order to insert proper “left” or “right” hand commands where needed.

Before each test is performed, make certain the patient understands the instructions completely. Each test must be timed. Included with the test is a stopwatch and all materials needed to perform each test.

Contents:

Board	Bottle Caps x6	Empty Cans x5
Clamp	Paper Clips x12	Paper 8½” x 11” x50
Stopwatch	Pennies x5	Sentence Cards 5” x 8” x4
Masking Tape	Checkers x8	Note Cards 3” x 5” x50
Clipboard	Kidney Beans x20	Recordpad
Canvas Bag	Teaspoons x2	Pens x4
Plastic Jar	Weighted Cans x5	

Writing, Procedure:

Give the patient a ball-point pen and four 8½"x 11" sheets of unruled white paper one on top of the other fastened to a clipboard. The sentence to be copied has 24 letters and is of third grade reading difficulty. The sentence is typed in all capital letters and centered on a 5"x 8" index card. Present the card with the typed side face down on a bookstand. After the articles are arranged to the comfort of the patient, turn the card and give an immediate command to begin. Time from the word "Go" until the pen is lifted from the page at the end of the sentence. Repeat subtest with the dominant hand using a new sentence.

Writing, Verbal:

Non-Dominant Hand

"Do you require glasses for reading? If so, put them on. Take this pen in your ____ hand and arrange everything so that it is comfortable for you to write with your ____ hand. On the other side of this card (indicate) is a sentence. When I turn this card over and say 'Go', write the sentence as quickly and clearly as you can using your ____ hand. Write...do not print. Do you understand? Ready? Go."

Dominant Hand

"All right, now repeat the same thing, only this time use your ____ hand. I'll give you a different sentence. Are you ready? Go."



Simulated Page Turning, Procedure:

Place five 3"x 5" index cards, ruled on one side only, in a horizontal row two inches apart on the table on front of the subject. Each card is oriented vertically, 5" from the front edge of the table. The distance is indicated on the side edge of the table with a piece of tape. Time from the word "go" until the last card is turned over. No accuracy of placement after turning is necessary. Repeat subtest with the dominant hand.

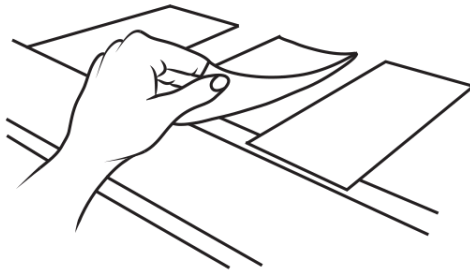
Simulated Page Turning, Verbal:

Non-Dominant Hand

"Place your ____ hand on the table please. When I say 'Go', use your ____ hand to turn these cards over one at a time as quickly as you can, beginning with this card (indicate card to extreme dominant side). You may turn them over in any way you wish and they need not be in a neat pattern when you finish. Do you understand? Ready? Go."

Dominant Hand

"Now repeat the same thing with the ____ hand beginning with this card (indicate card to the extreme non-dominant side). Are you ready? Go."



Lifting Small Common Objects, Procedure:

Place an empty plastic jar directly in front of the subject, 5" from the front edge of the table. Place two 1" paper clips (oriented vertically), two regular-sized bottle caps (each 1" in diameter, placed with the inside of the cap facing up), and two U.S. pennies in a horizontal row to the non-dominant side of the jar. The paper clips are the farthest and the pennies nearest the jar. The objects are 2" apart. Time from the word "Go" until the sound of the last object striking the inside of the jar is heard. Repeat subtest with the dominant hand. The layout for the dominant hand is a mirror image of one described, with the objects placed on the dominant hand side of the can.

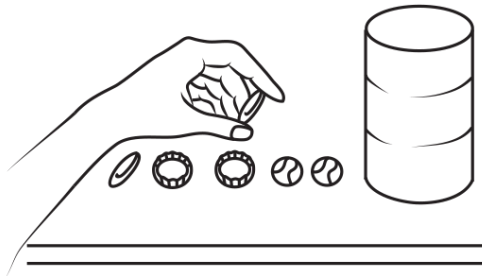
Lifting Small Common Objects, Verbal:

Non-Dominant Hand

"Place your ____ hand on the table please. When I say 'Go', use your ____ hand to pick up these objects one at a time and place them in the jar as fast as you can beginning with this one (indicate paper clip on the extreme non-dominant side). Do you understand? Ready? Go."

Dominant Hand

"Now repeat the same thing with the ____ hand beginning here (indicate paper clip on the extreme dominant side). Are you ready? Go."



Simulated Feeding, Procedure:

Clamp board 5" from the front edge of the table. Place 5 kidney beans of approximately 5/8" length on a board. The beans are oriented to the non-dominant side of the center, parallel to and touching the upright of the board 2" apart. Place an empty plastic jar centrally in front of the board. A regular teaspoon is provided. Time from the word "Go" until the last bean is heard hitting the bottom of the jar. Repeat subtest with the dominant hand, the beans being placed to the dominant hand side of the center.

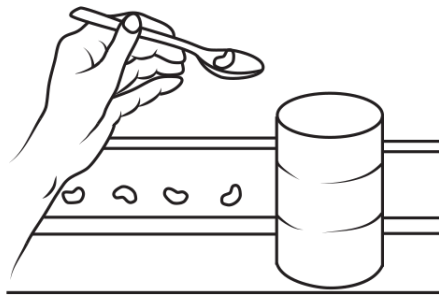
Simulated Feeding, Verbal:

Non-Dominant Hand

"Take the teaspoon in your ____ hand please. When I say 'Go', use your ____ hand to pick up these beans one at a time with the teaspoon and place them in the jar as fast as you can beginning with this one (indicate bean on the extreme non-dominant side). Do you understand? Ready? Go."

Dominant Hand

"Now repeat the same thing with the ____ hand beginning here (indicate bean on the extreme dominant side). Are you ready? Go."



Stacking Checkers, Procedure

Place four standard size (1¼" diameter) checkers in front of the patient touching the board clamped 5" from the edge of the table. The checkers are arranged 2 on each side of the center in a OOOO configuration. Time from the word "Go" until the fourth checker makes contact with the third checker. The fourth checker need not stay in place. Repeat subtest with the dominant hand.

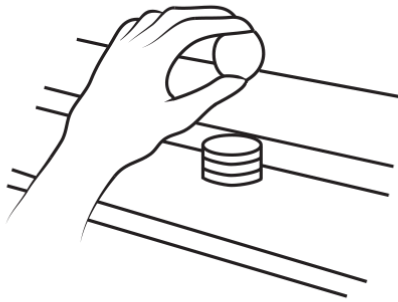
Stacking Checkers, Verbal

Non-Dominant Hand

"Place your ____ hand on the table please. When I say 'Go', use your ____ hand to stack the checkers (demonstrate). You may begin with any checker (indicate checker on the extreme non-dominant side). Do you understand? Ready? Go."

Dominant Hand

"Now repeat the same thing with the ____ hand beginning here (indicate checker on the extreme dominant side). Are you ready? Go."



Lifting Large, Light Objects, Procedure

Clamp a board 5" from the front edge of the table. Place five empty cans in front of the board. These cans are spaced 2" apart with the open end of the can facing down. Time from the word 'Go' until the fifth can has been released on the top of the board. Repeat subtest with the dominant hand.

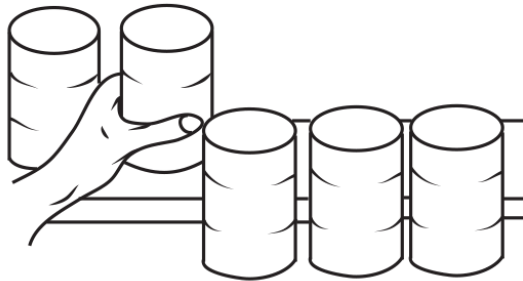
Lifting Large, Light Objects, Verbal

Non-Dominant Hand

"Please place your ____ hand on the table. When I say 'Go', use your ____ hand to stand these cans on the board in front of you (demonstrate). Begin with this one (indicate can on extreme non-dominant side). Do you understand? Ready? Go."

Dominant Hand

"Now repeat the same thing with the ____ hand beginning here (indicate can on extreme dominant side). Are you ready? Go."



Lifting Large, Heavy Objects, Procedure

Clamp a board 5" from the front edge of the table. Place five full 1-lb cans in front of the board. These cans are spaced 2" apart. Time from the word "Go" until the fifth can has been released on the top of the board. Repeat subtest with the dominant hand.

Note: The 1-lb cans may need to be replaced after 36 months if dented or rusting.

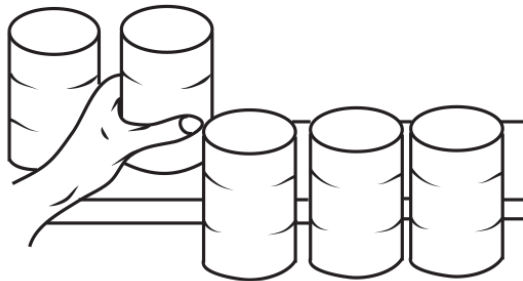
Lifting Large, Heavy Objects, Verbal

Non-Dominant Hand

"Please place your ____ hand on the table. When I say 'Go', use your ____ hand to stand these cans on the board in front of you (demonstrate). Begin with this one (indicate can on extreme non-dominant side). Do you understand? Ready? Go."

Dominant Hand

"Now repeat the same thing with the ____ hand beginning here (indicate can on extreme dominant side). Are you ready? Go."



Hand Function Test Record Sheet

Subject's Name_____ Dominant Hand_____

Administrator's Name_____

	Test One Date Administered_____		Test Two Date Administered_____	
	Non-Dominant Hand	Dominant Hand	Non-Dominant Hand	Dominant Hand
Writing				
Simulated Page Turning				
Lifting Small, Common Objects				
Simulated Feeding				
Stacking Checkers				
Lifting Large, Light Objects				
Lifting Large, Heavy Objects				

Hand Function Test

Mean Times and Standard Deviations for Normal Subject - Dominant Hand

	Male		Female	
	20 to 59	60 to 94	20 to 59	60 to 94
Age Range, Years	20 to 59	60 to 94	20 to 59	60 to 94
Total Number of Subjects	120	30	120	30
Writing	12.2 ± 3.5	19.5 ± 7.5	11.7 ± 2.1	15.7 ± 4.7
Cards	4.0 ± 0.9	5.3 ± 1.6	4.3 ± 1.4	4.9 ± 1.2
Small Objects	5.9 ± 1.0	6.3 ± 1.2	5.5 ± 0.8	6.6 ± 1.3
Simulated Feeding	6.4 ± 0.9	6.9 ± 0.9	6.7 ± 1.1	6.8 ± 1.1
Checkers	3.3 ± 0.7	3.9 ± 0.7	3.3 ± 0.6	3.6 ± 0.6
Large Light Objects	3.0 ± 0.4	3.6 ± 0.7	3.1 ± 0.5	3.5 ± 0.6
Large Heavy Objects	3.0 ± 0.6	3.5 ± 0.7	3.2 ± 0.5	3.5 ± 0.6

Mean Times and Standard Deviations for Normal Subject - Nondominant Hand

	Male		Female	
	20 to 59	60 to 94	20 to 59	60 to 94
Age Range, Years	20 to 59	60 to 94	20 to 59	60 to 94
Total Number of Subjects	120	30	120	30
Writing	32.3 ± 11.3	43.2 ± 19.1	30.2 ± 3.6	38.9 ± 14.9
Cards	4.5 ± 0.9	6.1 ± 2.2	4.3 ± 1.1	5.5 ± 1.1
Small Objects	6.2 ± 0.9	7.9 ± 1.9	6.0 ± 1.0	6.6 ± 0.8
Simulated Feeding	7.9 ± 1.3	8.6 ± 1.5	8.0 ± 1.6	8.7 ± 2.0
Checkers	3.8 ± 0.6	4.6 ± 1.0	3.8 ± 0.7	4.4 ± 1.0
Large Light Objects	3.2 ± 0.6	3.9 ± 0.7	3.3 ± 0.6	3.4 ± 0.6
Large Heavy Objects	3.1 ± 0.4	3.8 ± 0.7	3.3 ± 0.5	3.7 ± 0.7