



Instructions for the ABILHAND-Stroke questionnaire

The ABILHAND-Stroke questionnaire

The ABILHAND questionnaire was developed as a measure of manual ability as perceived by the patient. It explores the most representative inventory of manual activities. Some items were selected from existing scales; others were devised to extend the range of activities. The first application of the questionnaire in a sample of rheumatoid arthritis patients (*Arch Phys Med Rehabil* 1998; 79: 1038-42) showed that the items defined a valid manual ability scale. A second application of the questionnaire in a larger sample of chronic stroke patients showed that the unimanual activities (usually realized with one hand) were too easy for the patients. So, a subset of 23 bimanual activities (usually realized with two hands) has been retained and calibrated for chronic stroke patients (*Stroke* 2001; 32: 1627-34). ABILHAND was originally developed using the Rasch measurement model. It allows to convert ordinal scores into linear measures located on a unidimensional scale.

Procedures

The ABILHAND questionnaire is administered on an interview basis (patients do not realize the activities). Patients are asked to estimate the ease or difficulty in performing each activity, when the activities are done:

- Without other technical or human help (even if the patient actually uses help in daily life);
- Irrespective of the limb(s) actually used to do the activity;
- Whatever the strategy used (any compensation is allowed).

During the evaluation, a 3-level response scale is presented to the patients. Patients are asked to rate their perception on the response scale as either "Impossible", "Difficult" or "Easy". Activities not attempted in the last 3 months are not scored and are entered as missing responses (tick the question mark). For any activity the four potential answers are:

- **Impossible:** the patient is unable to perform the activity without using any other help;
- **Difficult:** the patient is able to perform the activity without any help but experiences some difficulty;
- **Easy:** the patient is able to perform the activity without any help and experiences no difficulty;
- **Question mark:** the patient cannot estimate the difficulty of the activity because he/she has never done the activity. Note that when a patient has never attempted the activity, the rater needs to make sure why it is so. If an activity was never attempted because it is impossible, then it must be scored as "Impossible" rather than "Question mark".

The instructions are given to the patient only at the beginning of the test. Five items are used for training in order to help the patient in feeling each level of the rating scale and in using the whole amplitude of the response scale. The subsequent activities are neither preceded nor followed by any instruction. The examiner can repeat the instructions whenever the patient shows some hesitation in answering.

Activities order

The activities of the ABILHAND questionnaire are presented in a random order to avoid any systematic effect. Ten different random orders of presentation are used. The rater must select the next one of the 10 orders for each new assessment, no matter which patient is tested.

Package content

- 1 instruction sheet;
- Testing forms in 10 random orders (10 sheets);
- Response scale presented to the patient during the evaluation (1 sheet).

ABILHAND-Stroke - Manual Ability Measure				
English version - Canada				
Patient _____			Date _____	
How DIFFICULT are the following activities?	Impossible	Difficult	Easy	?
1. Zipping up pants				
2. Peeling onions				
3. Sharpening a pencil manually				
4. Taking the metallic cap off a bottle using a bottle opener				
5. Filing one's nails				
6. Peeling potatoes with a knife				
7. Buttoning up pants				
8. Opening a screw-topped jar				
9. Cutting one's nails				
10. Opening a pack of chips				
11. Unwrapping a chocolate bar				
12. Hammering a nail				
13. Spreading butter on a slice of bread				
14. Washing one's hands				
15. Buttoning up a shirt				
16. Threading a needle				
17. Cutting meat				
18. Wrapping up gifts				
19. Zipping up a jacket				
20. Fastening a snap (jacket, bag, ...)				
21. Shelling walnuts				
22. Opening mail				
23. Squeezing toothpaste on a toothbrush				

ABILHAND-Stroke - Manual Ability Measure**English version - Canada**

Patient _____

Date _____

How DIFFICULT are the following activities?	Impossible	Difficult	Easy	?
1. Opening a pack of chips				
2. Opening mail				
3. Fastening a snap (jacket, bag, ...)				
4. Taking the metallic cap off a bottle using a bottle opener				
5. Filing one's nails				
6. Squeezing toothpaste on a toothbrush				
7. Peeling onions				
8. Opening a screw-topped jar				
9. Zipping up pants				
10. Spreading butter on a slice of bread				
11. Hammering a nail				
12. Sharpening a pencil manually				
13. Cutting one's nails				
14. Shelling walnuts				
15. Threading a needle				
16. Washing one's hands				
17. Buttoning up pants				
18. Peeling potatoes with a knife				
19. Zipping up a jacket				
20. Unwrapping a chocolate bar				
21. Buttoning up a shirt				
22. Wrapping up gifts				
23. Cutting meat				

ABILHAND-Stroke - Manual Ability Measure				
English version - Canada				
Patient _____			Date _____	
How DIFFICULT are the following activities?	Impossible	Difficult	Easy	?
1. Wrapping up gifts				
2. Unwrapping a chocolate bar				
3. Filing one's nails				
4. Spreading butter on a slice of bread				
5. Cutting meat				
6. Buttoning up pants				
7. Opening a screw-topped jar				
8. Peeling potatoes with a knife				
9. Zipping up pants				
10. Sharpening a pencil manually				
11. Threading a needle				
12. Fastening a snap (jacket, bag, ...)				
13. Washing one's hands				
14. Opening a pack of chips				
15. Buttoning up a shirt				
16. Taking the metallic cap off a bottle using a bottle opener				
17. Zipping up a jacket				
18. Cutting one's nails				
19. Hammering a nail				
20. Opening mail				
21. Peeling onions				
22. Squeezing toothpaste on a toothbrush				
23. Shelling walnuts				

ABILHAND-Stroke - Manual Ability Measure**English version - Canada**

Patient _____

Date _____

How DIFFICULT are the following activities?	Impossible	Difficult	Easy	?
1. Hammering a nail				
2. Buttoning up a shirt				
3. Opening a pack of chips				
4. Threading a needle				
5. Fastening a snap (jacket, bag, ...)				
6. Zipping up a jacket				
7. Cutting meat				
8. Filing one's nails				
9. Wrapping up gifts				
10. Spreading butter on a slice of bread				
11. Washing one's hands				
12. Unwrapping a chocolate bar				
13. Peeling potatoes with a knife				
14. Zipping up pants				
15. Buttoning up pants				
16. Squeezing toothpaste on a toothbrush				
17. Shelling walnuts				
18. Peeling onions				
19. Opening a screw-topped jar				
20. Taking the metallic cap off a bottle using a bottle opener				
21. Opening mail				
22. Cutting one's nails				
23. Sharpening a pencil manually				

ABILHAND-Stroke - Manual Ability Measure**English version - Canada****Patient** _____**Date** _____

How DIFFICULT are the following activities?	Impossible	Difficult	Easy	?
1. Opening a pack of chips				
2. Filing one's nails				
3. Unwrapping a chocolate bar				
4. Squeezing toothpaste on a toothbrush				
5. Zipping up pants				
6. Spreading butter on a slice of bread				
7. Zipping up a jacket				
8. Taking the metallic cap off a bottle using a bottle opener				
9. Threading a needle				
10. Opening a screw-topped jar				
11. Hammering a nail				
12. Cutting one's nails				
13. Buttoning up a shirt				
14. Washing one's hands				
15. Cutting meat				
16. Wrapping up gifts				
17. Peeling potatoes with a knife				
18. Sharpening a pencil manually				
19. Opening mail				
20. Fastening a snap (jacket, bag, ...)				
21. Peeling onions				
22. Buttoning up pants				
23. Shelling walnuts				

ABILHAND-Stroke - Manual Ability Measure**English version - Canada**

Patient _____

Date _____

How DIFFICULT are the following activities?	Impossible	Difficult	Easy	?
1. Taking the metallic cap off a bottle using a bottle opener				
2. Buttoning up a shirt				
3. Sharpening a pencil manually				
4. Opening mail				
5. Fastening a snap (jacket, bag, ...)				
6. Washing one's hands				
7. Opening a pack of chips				
8. Wrapping up gifts				
9. Opening a screw-topped jar				
10. Shelling walnuts				
11. Filing one's nails				
12. Zipping up a jacket				
13. Squeezing toothpaste on a toothbrush				
14. Zipping up pants				
15. Peeling onions				
16. Spreading butter on a slice of bread				
17. Cutting one's nails				
18. Threading a needle				
19. Cutting meat				
20. Unwrapping a chocolate bar				
21. Peeling potatoes with a knife				
22. Buttoning up pants				
23. Hammering a nail				

ABILHAND-Stroke - Manual Ability Measure				
English version - Canada				
Patient _____			Date _____	
How DIFFICULT are the following activities?	Impossible	Difficult	Easy	?
1. Unwrapping a chocolate bar				
2. Cutting one's nails				
3. Filing one's nails				
4. Shelling walnuts				
5. Hammering a nail				
6. Zipping up a jacket				
7. Peeling potatoes with a knife				
8. Squeezing toothpaste on a toothbrush				
9. Sharpening a pencil manually				
10. Buttoning up pants				
11. Fastening a snap (jacket, bag, ...)				
12. Washing one's hands				
13. Threading a needle				
14. Opening mail				
15. Zipping up pants				
16. Opening a screw-topped jar				
17. Taking the metallic cap off a bottle using a bottle opener				
18. Peeling onions				
19. Opening a pack of chips				
20. Cutting meat				
21. Wrapping up gifts				
22. Spreading butter on a slice of bread				
23. Buttoning up a shirt				

ABILHAND-Stroke - Manual Ability Measure**English version - Canada**

Patient _____

Date _____

How DIFFICULT are the following activities?	Impossible	Difficult	Easy	?
1. Washing one's hands				
2. Opening a pack of chips				
3. Opening mail				
4. Shelling walnuts				
5. Zipping up a jacket				
6. Taking the metallic cap off a bottle using a bottle opener				
7. Buttoning up a shirt				
8. Cutting one's nails				
9. Fastening a snap (jacket, bag, ...)				
10. Threading a needle				
11. Buttoning up pants				
12. Cutting meat				
13. Unwrapping a chocolate bar				
14. Wrapping up gifts				
15. Hammering a nail				
16. Zipping up pants				
17. Filing one's nails				
18. Peeling onions				
19. Spreading butter on a slice of bread				
20. Opening a screw-topped jar				
21. Squeezing toothpaste on a toothbrush				
22. Sharpening a pencil manually				
23. Peeling potatoes with a knife				

ABILHAND-Stroke - Manual Ability Measure				
English version - Canada				
Patient _____			Date _____	
How DIFFICULT are the following activities?	Impossible	Difficult	Easy	?
1. Peeling potatoes with a knife				
2. Washing one's hands				
3. Peeling onions				
4. Taking the metallic cap off a bottle using a bottle opener				
5. Hammering a nail				
6. Opening a pack of chips				
7. Shelling walnuts				
8. Filing one's nails				
9. Buttoning up pants				
10. Spreading butter on a slice of bread				
11. Squeezing toothpaste on a toothbrush				
12. Wrapping up gifts				
13. Zipping up pants				
14. Sharpening a pencil manually				
15. Threading a needle				
16. Zipping up a jacket				
17. Cutting meat				
18. Cutting one's nails				
19. Unwrapping a chocolate bar				
20. Opening mail				
21. Buttoning up a shirt				
22. Fastening a snap (jacket, bag, ...)				
23. Opening a screw-topped jar				

ABILHAND-Stroke - Manual Ability Measure**English version - Canada****Patient** _____**Date** _____

How DIFFICULT are the following activities?	Impossible	Difficult	Easy	?
1. Buttoning up a shirt				
2. Squeezing toothpaste on a toothbrush				
3. Opening a pack of chips				
4. Fastening a snap (jacket, bag, ...)				
5. Opening a screw-topped jar				
6. Opening mail				
7. Peeling potatoes with a knife				
8. Sharpening a pencil manually				
9. Buttoning up pants				
10. Washing one's hands				
11. Threading a needle				
12. Taking the metallic cap off a bottle using a bottle opener				
13. Zipping up pants				
14. Cutting one's nails				
15. Unwrapping a chocolate bar				
16. Shelling walnuts				
17. Peeling onions				
18. Hammering a nail				
19. Filing one's nails				
20. Spreading butter on a slice of bread				
21. Wrapping up gifts				
22. Zipping up a jacket				
23. Cutting meat				

		
Impossible	Difficult	Easy

Test package record

Scale definition	
Scale name	ABILHAND-Stroke
Scale version	1.0
Item orders	10
Scale reference	Stroke 2001; 32: 1627-34.
Calibration definition	
Online analysis	http://www.rehab-scales.org
Calibration reference	No specific calibration, refer to Stroke 2001; 32: 1627-34.
Language definition	
Language	English
Country	Canada
Translated instructions	Yes
Translated items	Yes
Translated response scale	Yes
Translated from	English
Translation methodology	See TransPerfect Translations International Inc
Translation reference	None
Translation credits	Original translation credited to TransPerfect Translations International Inc
Cross-cultural validation	None