



Instructions for the ABILHAND-Kids questionnaire

The ABILHAND-Kids questionnaire

The ABILHAND-Kids questionnaire was developed as a measure of manual ability in a sample of children with Cerebral Palsy (*Neurology* 2004; 63: 1045-52). It explores the most representative inventory of manual activities. Some items derived from the ABILHAND questionnaire, a manual ability scale developed for adult patients (*Arch Phys Med Rehabil* 1998; 79: 1038-42) (*Stroke* 2001; 32: 1627-34). Other items were selected from existing scales or were devised to extend the range of activities. The parents reported a finer perception of their children's manual ability than the children themselves, leading to a wider range of measurement, a higher reliability ($R = 0.94$) and a good reproducibility over time ($R = 0.91$). ABILHAND-Kids was therefore exclusively build on the parents' perceptions. The 21 items of ABILHAND-Kids defined a valid and reliable manual ability scale. ABILHAND-Kids was originally developed using the Rasch measurement model. It allows to convert ordinal scores into linear measures located on a unidimensional scale.

Procedures

Parents are asked to fill in the questionnaire by estimating their child's ease or difficulty in performing each activity, when the activities are done:

- Without other technical or human help (even if the child 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).

Parents are asked to provide their perceived child's difficulty on a three-level scale: "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 child is unable to perform the activity without using any other help;
- **Difficult**: the child is able to perform the activity without any help but experiences some difficulty;
- **Easy**: the child is able to perform the activity without any help and experiences no difficulty;
- **Question mark**: the parents cannot estimate the difficulty of the activity for their child because he/she has never done the activity. However, if the 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 parents only at the beginning of the test. Five items are used for training in order to help the parents in feeling each level of the rating scale and in using the whole amplitude of the response scale.

Activities order

The activities of the ABILHAND-Kids 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 child 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-Kids - Manual Ability Measure
English version

Patient _____

Date _____

How DIFFICULT are the following activities?	Impossible	Difficult	Easy	?
1. Opening a jar of jam				
2. Putting on a backpack/schoolbag				
3. Opening the cap of a toothpaste tube				
4. Unwrapping a chocolate bar				
5. Washing the upper-body				
6. Rolling-up a sleeve of a sweater				
7. Sharpening a pencil				
8. Taking off a T-shirt				
9. Squeezing toothpaste onto a toothbrush				
10. Opening a bread box				
11. Unscrewing a bottle cap				
12. Zipping-up trousers				
13. Buttoning up a shirt/sweater				
14. Filling a glass with water				
15. Switching on a bedside lamp				
16. Putting on a hat				
17. Fastening the snap of a jacket				
18. Buttoning up trousers				
19. Opening a bag of chips				
20. Zipping-up a jacket				
21. Taking a coin out of a pocket				

ABILHAND-Kids - Manual Ability Measure
English version

Patient _____

Date _____

How DIFFICULT are the following activities?	Impossible	Difficult	Easy	?
1. Opening a jar of jam				
2. Squeezing toothpaste onto a toothbrush				
3. Putting on a hat				
4. Buttoning up trousers				
5. Zipping-up trousers				
6. Washing the upper-body				
7. Buttoning up a shirt/sweater				
8. Putting on a backpack/schoolbag				
9. Opening a bag of chips				
10. Sharpening a pencil				
11. Fastening the snap of a jacket				
12. Zipping-up a jacket				
13. Unscrewing a bottle cap				
14. Opening a bread box				
15. Unwrapping a chocolate bar				
16. Opening the cap of a toothpaste tube				
17. Taking a coin out of a pocket				
18. Switching on a bedside lamp				
19. Filling a glass with water				
20. Taking off a T-shirt				
21. Rolling-up a sleeve of a sweater				

ABILHAND-Kids - Manual Ability Measure
English version

Patient _____

Date _____

How DIFFICULT are the following activities?	Impossible	Difficult	Easy	?
1. Putting on a backpack/schoolbag				
2. Washing the upper-body				
3. Putting on a hat				
4. Taking a coin out of a pocket				
5. Opening a bread box				
6. Taking off a T-shirt				
7. Buttoning up trousers				
8. Opening a jar of jam				
9. Filling a glass with water				
10. Sharpening a pencil				
11. Zipping-up trousers				
12. Fastening the snap of a jacket				
13. Unscrewing a bottle cap				
14. Buttoning up a shirt/sweater				
15. Unwrapping a chocolate bar				
16. Zipping-up a jacket				
17. Squeezing toothpaste onto a toothbrush				
18. Switching on a bedside lamp				
19. Opening the cap of a toothpaste tube				
20. Rolling-up a sleeve of a sweater				
21. Opening a bag of chips				

ABILHAND-Kids - Manual Ability Measure
English version

Patient _____

Date _____

How DIFFICULT are the following activities?	Impossible	Difficult	Easy	?
1. Buttoning up trousers				
2. Unwrapping a chocolate bar				
3. Zipping-up a jacket				
4. Squeezing toothpaste onto a toothbrush				
5. Filling a glass with water				
6. Sharpening a pencil				
7. Opening a bag of chips				
8. Fastening the snap of a jacket				
9. Opening a bread box				
10. Washing the upper-body				
11. Putting on a backpack/schoolbag				
12. Zipping-up trousers				
13. Putting on a hat				
14. Opening the cap of a toothpaste tube				
15. Taking a coin out of a pocket				
16. Taking off a T-shirt				
17. Rolling-up a sleeve of a sweater				
18. Buttoning up a shirt/sweater				
19. Unscrewing a bottle cap				
20. Switching on a bedside lamp				
21. Opening a jar of jam				

ABILHAND-Kids - Manual Ability Measure
English version

Patient _____

Date _____

How DIFFICULT are the following activities?	Impossible	Difficult	Easy	?
1. Opening a bag of chips				
2. Rolling-up a sleeve of a sweater				
3. Putting on a hat				
4. Taking off a T-shirt				
5. Zipping-up a jacket				
6. Putting on a backpack/schoolbag				
7. Squeezing toothpaste onto a toothbrush				
8. Taking a coin out of a pocket				
9. Switching on a bedside lamp				
10. Sharpening a pencil				
11. Washing the upper-body				
12. Opening a bread box				
13. Opening the cap of a toothpaste tube				
14. Zipping-up trousers				
15. Fastening the snap of a jacket				
16. Unscrewing a bottle cap				
17. Opening a jar of jam				
18. Filling a glass with water				
19. Buttoning up trousers				
20. Unwrapping a chocolate bar				
21. Buttoning up a shirt/sweater				

ABILHAND-Kids - Manual Ability Measure
English version

Patient _____

Date _____

How DIFFICULT are the following activities?	Impossible	Difficult	Easy	?
1. Fastening the snap of a jacket				
2. Opening a bread box				
3. Unwrapping a chocolate bar				
4. Washing the upper-body				
5. Opening a jar of jam				
6. Opening a bag of chips				
7. Taking a coin out of a pocket				
8. Squeezing toothpaste onto a toothbrush				
9. Putting on a backpack/schoolbag				
10. Buttoning up trousers				
11. Zipping-up a jacket				
12. Zipping-up trousers				
13. Rolling-up a sleeve of a sweater				
14. Buttoning up a shirt/sweater				
15. Taking off a T-shirt				
16. Opening the cap of a toothpaste tube				
17. Sharpening a pencil				
18. Switching on a bedside lamp				
19. Filling a glass with water				
20. Putting on a hat				
21. Unscrewing a bottle cap				

ABILHAND-Kids - Manual Ability Measure
English version

Patient _____

Date _____

How DIFFICULT are the following activities?	Impossible	Difficult	Easy	?
1. Taking a coin out of a pocket				
2. Rolling-up a sleeve of a sweater				
3. Putting on a backpack/schoolbag				
4. Buttoning up a shirt/sweater				
5. Sharpening a pencil				
6. Switching on a bedside lamp				
7. Unwrapping a chocolate bar				
8. Putting on a hat				
9. Opening a jar of jam				
10. Unscrewing a bottle cap				
11. Filling a glass with water				
12. Fastening the snap of a jacket				
13. Zipping-up a jacket				
14. Buttoning up trousers				
15. Opening a bread box				
16. Squeezing toothpaste onto a toothbrush				
17. Zipping-up trousers				
18. Opening a bag of chips				
19. Taking off a T-shirt				
20. Washing the upper-body				
21. Opening the cap of a toothpaste tube				

ABILHAND-Kids - Manual Ability Measure
English version

Patient _____

Date _____

	How DIFFICULT are the following activities?	Impossible	Difficult	Easy	?
1.	Sharpening a pencil				
2.	Rolling-up a sleeve of a sweater				
3.	Washing the upper-body				
4.	Unscrewing a bottle cap				
5.	Unwrapping a chocolate bar				
6.	Putting on a hat				
7.	Zippering-up a jacket				
8.	Putting on a backpack/schoolbag				
9.	Zippering-up trousers				
10.	Squeezing toothpaste onto a toothbrush				
11.	Fastening the snap of a jacket				
12.	Switching on a bedside lamp				
13.	Buttoning up a shirt/sweater				
14.	Opening a jar of jam				
15.	Opening the cap of a toothpaste tube				
16.	Taking off a T-shirt				
17.	Taking a coin out of a pocket				
18.	Opening a bag of chips				
19.	Buttoning up trousers				
20.	Filling a glass with water				
21.	Opening a bread box				

ABILHAND-Kids - Manual Ability Measure
English version

Patient _____

Date _____


How DIFFICULT are the following activities?	Impossible	Difficult	Easy	?
1. Rolling-up a sleeve of a sweater				
2. Washing the upper-body				
3. Opening the cap of a toothpaste tube				
4. Zipping-up trousers				
5. Unwrapping a chocolate bar				
6. Putting on a hat				
7. Unscrewing a bottle cap				
8. Fastening the snap of a jacket				
9. Zipping-up a jacket				
10. Opening a bag of chips				
11. Squeezing toothpaste onto a toothbrush				
12. Putting on a backpack/schoolbag				
13. Opening a bread box				
14. Taking off a T-shirt				
15. Filling a glass with water				
16. Buttoning up trousers				
17. Opening a jar of jam				
18. Sharpening a pencil				
19. Switching on a bedside lamp				
20. Buttoning up a shirt/sweater				
21. Taking a coin out of a pocket				

ABILHAND-Kids - Manual Ability Measure
English version

Patient _____

Date _____

	How DIFFICULT are the following activities?	Impossible	Difficult	Easy	?
1.	Buttoning up a shirt/sweater				
2.	Taking a coin out of a pocket				
3.	Switching on a bedside lamp				
4.	Filling a glass with water				
5.	Washing the upper-body				
6.	Zippering-up a jacket				
7.	Squeezing toothpaste onto a toothbrush				
8.	Taking off a T-shirt				
9.	Buttoning up trousers				
10.	Opening a bag of chips				
11.	Opening the cap of a toothpaste tube				
12.	Opening a bread box				
13.	Rolling-up a sleeve of a sweater				
14.	Zippering-up trousers				
15.	Opening a jar of jam				
16.	Unwrapping a chocolate bar				
17.	Sharpening a pencil				
18.	Unscrewing a bottle cap				
19.	Putting on a backpack/schoolbag				
20.	Fastening the snap of a jacket				
21.	Putting on a hat				

		
Impossible	Difficult	Easy