



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 (雙手操作能力問卷 - 成人)
Chinese version - Taiwan
Patient _____

Date _____

	以下活動對你來說的 困難程度	做不到	很難做得到	很容易做得到	?
1.	開果醬罐頭				
2.	揸背包或書包				
3.	打開牙膏的蓋子				
4.	拆開巧克力棒的包裝				
5.	洗上半身				
6.	捲起毛衣的袖子				
7.	削鉛筆				
8.	脫掉T恤				
9.	把牙膏擠在牙刷上				
10.	打開便當盒				
11.	轉開瓶蓋(水瓶等)				
12.	拉上褲子拉鍊				
13.	扣上衣或毛衣鈕扣				
14.	把水裝滿玻璃杯				
15.	打開床頭燈				
16.	戴帽子				
17.	扣外套上的按扣				
18.	扣上褲子鈕扣				
19.	打開一袋洋芋片				
20.	拉上外套拉鍊				
21.	從口袋拿出硬幣				

ABILHAND-Kids - Manual Ability Measure (雙手操作能力問卷 - 成人)

Chinese version - Taiwan

Patient _____

Date _____

	以下活動對你來說的 困難程度	做不到	很難做得到	很容易做得到	?
1.	開果醬罐頭				
2.	把牙膏擠在牙刷上				
3.	戴帽子				
4.	扣上褲子鈕扣				
5.	拉上褲子拉鍊				
6.	洗上半身				
7.	扣上衣或毛衣鈕扣				
8.	揸背包或書包				
9.	打開一袋洋芋片				
10.	削鉛筆				
11.	扣外套上的按扣				
12.	拉上外套拉鍊				
13.	轉開瓶蓋(水瓶等)				
14.	打開便當盒				
15.	拆開巧克力棒的包裝				
16.	打開牙膏的蓋子				
17.	從口袋拿出硬幣				
18.	打開床頭燈				
19.	把水裝滿玻璃杯				
20.	脫掉T恤				
21.	捲起毛衣的袖子				

ABILHAND-Kids - Manual Ability Measure (雙手操作能力問卷 -成人)

Chinese version - Taiwan

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Date _____

	以下活動對你來說的 困難程度	做不到	很難做得到	很容易做得到	?
1.	揸背包或書包				
2.	洗上半身				
3.	戴帽子				
4.	從口袋拿出硬幣				
5.	打開便當盒				
6.	脫掉T恤				
7.	扣上褲子鈕扣				
8.	開果醬罐頭				
9.	把水裝滿玻璃杯				
10.	削鉛筆				
11.	拉上褲子拉鍊				
12.	扣外套上的按扣				
13.	轉開瓶蓋(水瓶等)				
14.	扣上衣或毛衣鈕扣				
15.	拆開巧克力棒的包裝				
16.	拉上外套拉鍊				
17.	把牙膏擠在牙刷上				
18.	打開床頭燈				
19.	打開牙膏的蓋子				
20.	捲起毛衣的袖子				
21.	打開一袋洋芋片				

ABILHAND-Kids - Manual Ability Measure (雙手操作能力問卷 - 成人)

Chinese version - Taiwan

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	以下活動對你來說的 困難程度	做不到	很難做得到	很容易做得到	?
1.	扣上褲子鈕扣				
2.	拆開巧克力棒的包裝				
3.	拉上外套拉鍊				
4.	把牙膏擠在牙刷上				
5.	把水裝滿玻璃杯				
6.	削鉛筆				
7.	打開一袋洋芋片				
8.	扣外套上的按扣				
9.	打開便當盒				
10.	洗上半身				
11.	揸背包或書包				
12.	拉上褲子拉鍊				
13.	戴帽子				
14.	打開牙膏的蓋子				
15.	從口袋拿出硬幣				
16.	脫掉T恤				
17.	捲起毛衣的袖子				
18.	扣上衣或毛衣鈕扣				
19.	轉開瓶蓋(水瓶等)				
20.	打開床頭燈				
21.	開果醬罐頭				

ABILHAND-Kids - Manual Ability Measure (雙手操作能力問卷 - 成人)

Chinese version - Taiwan

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Date _____

	以下活動對你來說的 困難程度	做不到	很難做得到	很容易做得到	?
1.	打開一袋洋芋片				
2.	捲起毛衣的袖子				
3.	戴帽子				
4.	脫掉T恤				
5.	拉上外套拉鍊				
6.	揸背包或書包				
7.	把牙膏擠在牙刷上				
8.	從口袋拿出硬幣				
9.	打開床頭燈				
10.	削鉛筆				
11.	洗上半身				
12.	打開便當盒				
13.	打開牙膏的蓋子				
14.	拉上褲子拉鍊				
15.	扣外套上的按扣				
16.	轉開瓶蓋(水瓶等)				
17.	開果醬罐頭				
18.	把水裝滿玻璃杯				
19.	扣上褲子鈕扣				
20.	拆開巧克力棒的包裝				
21.	扣上衣或毛衣鈕扣				

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	以下活動對你來說的 困難程度	做不到	很難做得到	很容易做得到	?
1.	扣外套上的按扣				
2.	打開便當盒				
3.	拆開巧克力棒的包裝				
4.	洗上半身				
5.	開果醬罐頭				
6.	打開一袋洋芋片				
7.	從口袋拿出硬幣				
8.	把牙膏擠在牙刷上				
9.	揹背包或書包				
10.	扣上褲子鈕扣				
11.	拉上外套拉鍊				
12.	拉上褲子拉鍊				
13.	捲起毛衣的袖子				
14.	扣上衣或毛衣鈕扣				
15.	脫掉T恤				
16.	打開牙膏的蓋子				
17.	削鉛筆				
18.	打開床頭燈				
19.	把水裝滿玻璃杯				
20.	戴帽子				
21.	轉開瓶蓋(水瓶等)				

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Chinese version - Taiwan

Patient _____

Date _____

	以下活動對你來說的 困難程度	做不到	很難做得到	很容易做得到	?
1.	從口袋拿出硬幣				
2.	捲起毛衣的袖子				
3.	揸背包或書包				
4.	扣上衣或毛衣鈕扣				
5.	削鉛筆				
6.	打開床頭燈				
7.	拆開巧克力棒的包裝				
8.	戴帽子				
9.	開果醬罐頭				
10.	轉開瓶蓋(水瓶等)				
11.	把水裝滿玻璃杯				
12.	扣外套上的按扣				
13.	拉上外套拉鍊				
14.	扣上褲子鈕扣				
15.	打開便當盒				
16.	把牙膏擠在牙刷上				
17.	拉上褲子拉鍊				
18.	打開一袋洋芋片				
19.	脫掉T恤				
20.	洗上半身				
21.	打開牙膏的蓋子				

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	以下活動對你來說的 困難程度	做不到	很難做得到	很容易做得到	?
1.	削鉛筆				
2.	捲起毛衣的袖子				
3.	洗上半身				
4.	轉開瓶蓋(水瓶等)				
5.	拆開巧克力棒的包裝				
6.	戴帽子				
7.	拉上外套拉鍊				
8.	揸背包或書包				
9.	拉上褲子拉鍊				
10.	把牙膏擠在牙刷上				
11.	扣外套上的按扣				
12.	打開床頭燈				
13.	扣上衣或毛衣鈕扣				
14.	開果醬罐頭				
15.	打開牙膏的蓋子				
16.	脫掉T恤				
17.	從口袋拿出硬幣				
18.	打開一袋洋芋片				
19.	扣上褲子鈕扣				
20.	把水裝滿玻璃杯				
21.	打開便當盒				

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	以下活動對你來說的 困難程度	做不到	很難做得到	很容易做得到	?
1.	捲起毛衣的袖子				
2.	洗上半身				
3.	打開牙膏的蓋子				
4.	拉上褲子拉鍊				
5.	拆開巧克力棒的包裝				
6.	戴帽子				
7.	轉開瓶蓋(水瓶等)				
8.	扣外套上的按扣				
9.	拉上外套拉鍊				
10.	打開一袋洋芋片				
11.	把牙膏擠在牙刷上				
12.	揸背包或書包				
13.	打開便當盒				
14.	脫掉T恤				
15.	把水裝滿玻璃杯				
16.	扣上褲子鈕扣				
17.	開果醬罐頭				
18.	削鉛筆				
19.	打開床頭燈				
20.	扣上衣或毛衣鈕扣				
21.	從口袋拿出硬幣				

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	以下活動對你來說的 困難程度	做不到	很難做得到	很容易做得到	?
1.	扣上衣或毛衣鈕扣				
2.	從口袋拿出硬幣				
3.	打開床頭燈				
4.	把水裝滿玻璃杯				
5.	洗上半身				
6.	拉上外套拉鍊				
7.	把牙膏擠在牙刷上				
8.	脫掉T恤				
9.	扣上褲子鈕扣				
10.	打開一袋洋芋片				
11.	打開牙膏的蓋子				
12.	打開便當盒				
13.	捲起毛衣的袖子				
14.	拉上褲子拉鍊				
15.	開果醬罐頭				
16.	拆開巧克力棒的包裝				
17.	削鉛筆				
18.	轉開瓶蓋(水瓶等)				
19.	揸背包或書包				
20.	扣外套上的按扣				
21.	戴帽子				

做不到	很難做得到	很容易做得到

Test package record

Scale definition	
Scale name	ABILHAND-Kids
Scale version	1.0
Item orders	10
Scale reference	Neurology 2004; 63: 1045–52.
Calibration definition	
Online analysis	http://www.rehab-scales.org
Calibration reference	No specific calibration, refer to Neurology 2004; 63: 1045–52.
Language definition	
Language	Chinese
Country	Taiwan
Translated instructions	No
Translated items	Yes
Translated response scale	Yes
Translated from	English
Translation methodology	Forward-backward translations
Translation reference	None
Translation credits	None, translation performed by Professor Chia-Ling Chen (Department of Physical Medicine & Rehabilitation, Chang Gung Memorial Hospital, Taiwan)
Cross-cultural validation	None