

Date Examiner Time Room Temp °C Place
ID NAME DOB Gender

TELETHON INSTITUTE FOR CHILD HEALTH RESEARCH

**WESTERN AUSTRALIAN
PREGNANCY COHORT (RAINE) STUDY**

13 YEAR STUDY CHILD ASSESSMENT

ASSESSMENT CHECKLIST

- 1. Physiological Measurements
- 2. MANC
- 3. Musculoskeletal Evaluation
 - Hypermobility Assessment
 - Back Muscle Endurance
 - Posture Assessment
- 4. Cardiovascular Endurance Test
- 5. Australian Fitness Education Award

Contraindications Yes No

Diagnosed condition Yes No Injury Yes No Illness Yes No

1. Physiological Measurements

Blood Pressure Measurement

Arm circumference

/ mm Hg HR: State:

Instrument:

Minutes

HR

0 / mm Hg

2 / mm Hg

4 / mm Hg

6 / mm Hg

8 / mm Hg

10 / mm Hg

School

ICHR

Height

mtrs

Weight

kgs

Waist girth

BODY MASS INDEX
(auto-calculation)

2. MAND



1.	Beads in Box (# placed in 30 seconds)	Right	<u>13_MA</u>	Left	<u>13_MA</u>
				Total	<u>13_MA</u>
				Scaled score	<u>13_MA</u>
2.	Beads on Rod (# cylinders placed in 30 seconds)	Eyes Open	<u>13_MA</u>	Eyes Closed	<u>13_MA</u>
				Total	<u>13_MA</u>
				Scaled score	<u>13_MA</u>

Preferred Hand: **Y1****Finger Tapping**

(Observations for a 10 second interval with each hand)

	RIGHT	LEFT
<u>A. Rhythm of tapping</u>		
4. Even, consistent rhythm of tapping	Y13_MA 31	Y13_MA 32
2. Disruption of rhythm once or twice, but regains consistent tapping		
1. Erratic, non-rhythmic tapping		
<u>B. Extraneous hand movements</u>		
4. Moves only index finger, fist remains closed	Y13_MA 33	Y13_MA 34
2. Extraneous movement of thumb		
1. Extraneous movement of thumb and other fingers		
<u>C. Overflow of movement in arm</u>		
4. Wrist or forearm remains stationary while tapping	Y13_MA 35	Y13_MA 36
2. Occasional (once or twice) movement of wrist or forearm to 'assist' tapping		
1. Frequent (three or more) movements of wrist or forearm to 'assist' tapping		
<u>D. Complete distance</u>		
4. Index finger moves the complete distance between base and suspended rubber band	Y13_MA 37	Y13_MA 38
2. Occasional (once or twice) incomplete movement between base and rubber band		
1. Frequent (three or more) incomplete movements of index finger between base and rubber band		
<u>E. Number of complete finger taps in ten seconds</u>	Y13_MA 39	Y13_MA 40
Do not count incomplete movements or contact made by movements of wrist or forearm		

Preferred Hand:

Nut & Bolt

(# seconds to complete task)

4.	Nut and Bolt (# seconds to complete task)	Large	<input type="text" value="13_MA8"/>	Small	<input type="text" value="13_MA8"/>
				Total	<input type="text" value="13_MA1"/>
				Scaled score	<input type="text" value="13_MA1"/>

	Large	Small
Time in seconds	<input type="text" value="13_MA8"/>	<input type="text" value="13_MA8"/>

Preferred Hand: **Y1****Rod Slide**

(Observations during movement of the right and left hands)

The individual stands approximately one foot away from the rod slide and the height of the rod is at waist level

	RIGHT	LEFT
A. Impulsive-jerky movements (changes in rate of speed)		
4. Continuous even slide		
2. Changes in slide motion; obvious deviation in speed	Y13_MA	Y13_MA
1. Changes in slide motion; obvious deviation in speed with erratic and impulsive movement	43	44
B. Distractibility		
4. Attended to task without distraction (eyes remained focused on bead during slide)		
2. Distracted by extraneous stimuli (eyes shifted from focus once during slide)	Y13_MA	Y13_MA
1. Distracted by extraneous stimuli (eyes shifted from focus two or more times during slide)	45	46
C. Head-body shifting		
4. Head and body remain stationary while the eyes track the bead; the movement of the eyes parallels the movement of the bead		
2. Limited tracking movement of eyes with turning of head or partial shifting of body to follow the bead	Y13_MA	Y13_MA
1. Simultaneous shifting of body while tracking the bead; the body or head, rather than the eyes, shifts past the midline	47	48
D. Extraneous body movements		
4. Body posture relaxed and stationary; moves only the arm performing the task	Y13_MA	Y13_MA
2. Extraneous movement of other arm or legs once during the task	49	50
1. Extraneous movement of other arm or legs two or more times during the task		
E. Speed of movement (up to 30 seconds)		
Record the time taken to move the bead the full distance across the rod. The maximum possible score for each hand is 30 seconds. When the speed of movement is 5 seconds or less, record a score of '1' for each of the behavioural observations above (A, B, C, and D)	Y13_MA	Y13_MA
	51	52

Preferred Hand: **Y1**

Hand Strength

(Best of two trials with each hand)

6.	Hand Strength (best of two trials with each hand)	Right	<input type="text" value="13_MA88"/>	Left	<input type="text" value="13_MA88"/>
				Total	<input type="text" value="13_MA19"/>
				Scaled score	<input type="text" value="13_MA20"/>

	Right	Left
Trial 1	<input type="text" value="Trial 1 R"/>	<input type="text" value="Trial 1 L"/>
Trial 2	<input type="text" value="Trial 2 R"/>	<input type="text" value="Trial 2 L"/>

Finger-Nose-Finger

(Allow a 10 second interval to observe each trial)

	EYES OPEN		EYES CLOSED	
	RIGHT	LEFT	RIGHT	LEFT
A. Arm movement				
4. Smooth, direct arm movement	Y13_M	Y13_M	Y13_M	Y13_M
2. Somewhat irregular or wavy arm movement	A55	A56	A57	A58
1. Confused and jerky arm movement				
B. Index finger on the extended hand				
4. Held steady	Y13_M	Y13_M	Y13_M	Y13_M
2. Slight tremor or swaying	A59	A60	A61	A62
1. Marked tremor or swaying				
C. Contact points				
4. Contact points at top of nose and tip of extended index finger	Y13_M	Y13_M	Y13_M	Y13_M
2. Missed contact point at either tip of nose or tip of index finger	A63	A64	A65	A66
1. Missed contact points at <i>both</i> tip of nose and tip of index finger				
D. Bending of elbow (gradual movement inward)				
4. Holds arm fully extended	Y13_M	Y13_M	Y13_M	Y13_M
2. Slight bend at elbow (less than 30°)	A67	A68	A69	A70
1. Noted bend at elbow (more than 30°)				
E. Indenting				
4. Lightly touches tip of extended index finger and end of nose	Y13_M	Y13_M	Y13_M	Y13_M
2. Noted pushing of tip of extended index finger or presses in end of nose once or twice	A71	A72	A73	A74
1. Noted pushing in of tip of extended index finger or presses in the end of nose three or more times				

Jumping

Body movements are rated according to an overall impression of typical performance as observed during all three jumps

A. Spring	
4. An even spring into the air from both feet	
2. An awkward spring into the air; predominant use of one leg to spring	Y13_MA89
1. Clumsy spring; limited ability to spring off the floor	
B. Use of arms	
4. Arms assist with slight spring forward and return to sides	
2. Arms move limply with limited assistance	Y13_MA90
1. Arms held rigidly; are not used to assist	
C. Trunk balance	
4. Landing stable; centre of gravity midline (remains in place)	
2. Landing unstable but able to regain balance	Y13_MA91
1. Landing unstable; takes step backward or forward or uses hands to prevent falling	
D. Landing with knees flexed	
4. Smooth landing on both feet simultaneously with slight bending of knees to absorb the fall	Y13_MA92
2. Somewhat stiff landing; limited use of knee bend	
1. Stiff landing with stiff knees; jars the body when landing	
E. Distance of jump	
The distance score recorded is the farthest jump of the three attempts (inches)	Y13_MA93

Preferred Hand:

Heel-Toe Walk

(Individual walks a distance of 10 feet)

FORWARD BACKWARD

<u>A. Arms/body sway</u>		
4. Both hands remain on hips	Y13_MA	Y13_MA
2. Removed one hand from hip	95	96
1. Removed both hands from hips		
<u>B. Feet</u>		
4. Retained both feet on tape line	Y13_MA	Y13_MA
2. Foot altered from line once or twice (when less than half the tape is covered, the foot is considered off)	97	98
1. Foot altered from line three or more times		
<u>C. Heel to toe distance</u>		
4. Heel positioned within once inch of toe	Y13_MA	Y13_MA
2. Heel positioned greater than once inch from toe once or twice	99	00
1. Heel positioned greater than once inch from toe three or more times		
<u>D. Progression</u>		
4. Smooth forward walk	Y13_MA	Y13_MA
2. Slight pauses in forward movement	01	02
1. Shifting of weight backward and forward while walking		
<u>E. Parallel placement</u>		
4. Both feet kept parallel to the tape line	Y13_MA	Y13_MA
2. Steps correctly, but then rotates foot to an angle (20° or more) with the line	03	04
1. Steps at an angle (20° or more) with the line		

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Preferred Hand:

Standing on One Foot
(# seconds up to 30)

10. Standing on One Foot (# seconds up to 30)	RIGHT	Open	<input type="text" value="13_MA1"/>	Closed	<input type="text" value="13_MA0"/>
	LEFT	Open	<input type="text" value="13_MA1"/>	Closed	<input type="text" value="13_MA0"/>
		Total	<input type="text" value="13_MA1"/>		
		Scaled score	<input type="text" value="13_MA1"/>		

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Preferred Hand Y1

Ball Bounce
(# bounces in 15 seconds)

11. Ball bounce (# bounces in 15 seconds)	Right <u>Y13_MA</u>	Left <u>Y13_MA</u>
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Hypermobility Assessment
 (0 = Normal and 1 = Hypermobile)



	RIGHT	LEFT
A. Finger Hyperextension manoeuvre (fingers to 90°)	Y13_HA3	Y13_HA4
B. Thumb to Forearm manoeuvre (passive apposition)	Y13_HA1	Y13_HA2
C. Elbow Hyperextension (past 10°)	Y13_HA5	Y13_HA6
D. Shoulder Rotation manoeuvre (past 90°)	Y13_HA1 0	Y13_HA1 1
E. Knee Hyperextension manoeuvre (past 10°)	Y13_HA7	Y13_HA8
F. Ankle Inversion (excessive dorsi-flexion/eversion of foot)	Y13_HA1 2	Y13_HA1 4
G. Toe touching (lumbar/hip flexion past touching toes)	Y13_HA9	
Total	13_HA1	

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Preferred Hand:

Back Muscle Endurance



(Time in seconds in position until sagging to 15° from horizontal plane)

Back Muscle Endurance (time until sagging to 15° from horizontal)

Minutes and Seconds

Total
Seconds

Posture Assessment



	STANDING	SITTING		SLUMP SITTING	
		Ahead	Down	Ahead	Down
A. Hip flexion					
	Y13_A	Y13_A	Y13_A	Y13_A	Y13_A
	P1	P6	P11	P16	P21
B. Thoraco-lumbar-pelvic posture					
	Y13_A	Y13_A	Y13_A	Y13_A	Y13_A
	P2	P7	P12	P17	P22
C. Cervical spine posture					
	Y13_A	Y13_A	Y13_A	Y13_A	Y13_A
	P3	P8	P13	P18	P23
D. Head tilt					
	Y13_A	Y13_A	Y13_A	Y13_A	Y13_A
	P4	P9	P14	P19	P24
E. Head protraction					
	Y13_A	Y13_A	Y13_A	Y13_A	Y13_A
	P5	P10	P15	P20	P25

A13_A

Preferred Hand: Y13

4. Cardiovascular Endurance Test

**Blood Pressure - Cycle Ergometer - Baseline**

Y13 / Y13 mm Hg HR: Y13 State: Y13_BP45

3 MINUTE WARM-UP ON CYCLE ERGOMETER

Cycling Technique Y13_TEC

Blood Pressure - Cycle Ergometer - Exercise

	HR	Resistance
FIRST STAGE (1 min)	Y13	resist
FIRST STAGE (2 min)	A13	
SECOND STAGE (3 min)	Y13	resist
SECOND STAGE (4 min)	A13	
THIRD STAGE (5 min)	Y13	resist
THIRD STAGE (6 min)	A13	

Blood Pressure - Cycle Ergometer - Post-Exercise

	HR	State
1. Y13 / Y13 mm Hg	Y13	Y13_BP24
2. Y13 / Y13 mm Hg	Y13	Y13_BP28
3. Y13 / Y13 mm Hg	Y13	Y13_BP32
4. Y13 / Y13 mm Hg	Y13	Y13_BP36
5. Y13 / Y13 mm Hg	Y13	Y13_BP40
6. Y13 / Y13 mm Hg	Y13	Y13_BP44

5. AFEA

**Curl-up**

Number of correctly performed curls (0-60)

Sit and Reach

Distance of reach (cm)

Right cmLeft cmBoth cm**Shoulder Stretch**

Able to touch fingertips behind back (Y/N)

Right Yes NoLeft Yes No**Basketball Throw**

Distance of throw (metres)

 metres

MAND Summary

Preferred Hand **Y1**

1.	Beads in Box (# placed in 30 seconds)	Right	<u>Y13_MA4</u>	Left	<u>Y13_MA5</u>	Total	<u>Y13_MA9</u>	Scaled score	<u>Y13_MA10</u>
2.	Beads on Rod (# cylinders placed in 30 seconds)	Eyes Open	<u>13_MA79</u>	Eyes Closed	<u>13_MA80</u>	Total	<u>13_MA11</u>	Scaled score	<u>13_MA12</u>
3.	Finger Tapping	Right	<u>13_MA41</u>	Left	<u>13_MA42</u>	Total	<u>13_MA13</u>	Scaled score	<u>13_MA14</u>
4.	Nut and Bolt (# seconds to complete task)	Large	<u>13_MA82</u>	Small	<u>13_MA83</u>	Total	<u>13_MA15</u>	Scaled score	<u>13_MA16</u>
5.	Rod Slide	Right	<u>13_MA53</u>	Left	<u>13_MA54</u>	Total	<u>13_MA17</u>	Scaled score	<u>13_MA18</u>
6.	Hand Strength (best of two trials with each hand)	Right	<u>13_MA85</u>	Left	<u>13_MA86</u>	Total	<u>13_MA19</u>	Scaled score	<u>13_MA20</u>
7.	Finger-Nose-Finger	Eyes Open	<u>13_MA87</u>	Eyes Closed	<u>13_MA88</u>	Total	<u>13_MA21</u>	Scaled score	<u>13_MA22</u>
8.	Jumping					Total	<u>13_MA23</u>	Scaled score	<u>13_MA24</u>
9.	Heel-Toe Walk					Total	<u>13_MA25</u>	Scaled score	<u>13_MA26</u>
10.	Standing on One Foot (# seconds up to 30)	RIGHT	Open <u>13_MA0</u>	Closed	<u>13_MA0</u>	LEFT	Open <u>13_MA0</u>	Closed	<u>13_MA0</u>
						Total	<u>13_MA27</u>	Scaled score	<u>13_MA28</u>