

Pediatric Balance Scale

Full Name of Patient: _____

Date of Examination: _____

Full Name of Examiner: _____

Location of Examination: _____

What you need:

- Adjustable height bench
- Chair with back support and armrests
- Stopwatch or watch with a second hand
- Masking tape that's one-inch wide
- A step stool six inches high
- Chalkboard eraser
- Ruler or yardstick
- A small level

Optional equipment:

- 2x child-size footprints
- Blindfold
- A brightly-colored object at least two inches in size
- Flashcards
- Two inches of adhesive-backed hook Velcro
- 2x one-foot strips of loop Velcro

General Instructions

1. Demonstrate each task and give instructions as written on the Pediatric Balance Scale

Each exercise has a standardized protocol. Since the patient being assessed is a school-age child with mild to moderate motor impairment, you must demonstrate each exercise and specify the instructions to the child.

After relaying the instructions to the child, you must give them a practice trial.

Suppose the child cannot complete the practice trial based on their ability to understand directions. In that case, you can give them a second practice trial and provide verbal and visual directions through physical prompts.

After the practice trial, the official trials will begin. The maximum number of official trials per item is three.

2. Interpreting the Pediatric Balance Scale scores

Pediatric Balance Scale scores are divided into 14 items, scored between 0 to 4. What counts as 0 and 4 will vary from exercise to exercise, but 0 is considered the worst performance, and 4 is the best. Retrials are unnecessary if they score a 4 on the first trial.

Since each exercise has three trials, the score rating you must tick for each item should be the best of the three trials.

Some exercises have time and distance requirements. Points will be deducted if they cannot complete the time and distance requirements and require external support or assistance from another person.

Patients can decide which leg they want to stand on and how far they should reach for specific items.

You may also choose to record the exact time for specific items in seconds.

After all the exercises have been performed, you simply need to add up all the score ratings per item to calculate the total test score.

The maximum score is 56. Higher total test scores indicate that the school-aged child is more capable of maintaining balance and has little to no motor impairments. Lower total test scores indicate moderate balance problems (or severe if the scores are extremely low or 0), motor impairment, and negatively impacted balance function.

1. Sitting to Standing

Special Instruction: Items #1 and #2 may be tested simultaneously if the examiner determines it will facilitate the best performance of the child.

Instructions: Child is asked to "Hold arms up and stand up." The child is allowed to select the position of his/her arms.

Equipment: A bench of appropriate height to allow the child's feet to rest supported on the floor with the hips and knees maintained in 90 degrees of flexion.

Best of Three Trials:

- 4 - Able to stand without using hands and stabilize independently
- 3 - Able to stand independently using hands
- 2 - Able to stand using hands after several tries
- 1 - Needs minimal assist to stand or to stabilize
- 0 - Needs moderate or maximal assist to stand

2. Standing To Sitting

Special instruction: Items #1 and #2 may be tested simultaneously if, in the determination of the examiner, it will facilitate the best performance of the child.

INSTRUCTIONS: Child is asked to sit down slowly, without use of hands. The child is allowed to select the position of his/her arms.

EQUIPMENT: A bench of appropriate height to allow the child's feet to rest supported on the floor with the hips and knees maintained in 90 degrees of flexion.

Best Of Three Trials

- 4 - sits safely with minimal use of hands

- 3 - controls descent by using hands
- 2 - uses back of legs against chair to control descent
- 1 - sits independently, but has uncontrolled descent
- 0 - needs assistance to sit

3. Transfers

INSTRUCTIONS: Arrange chair(s) for a stand pivot transfer, touching at a forty-five degree angle. **Ask the child to transfer one way toward a seat with armrests and one way toward a seat without armrests.**

Equipment: Two chairs, or one chair and one bench. One seating surface must have armrests. One chair/bench should be of standard adult size and the other should be of an appropriate height to allow the child to conformably sit with feet supported on the floor and ninety degrees of hip and knee flexion.

Best Of Three Trials

- 4 - able to transfer safely with minor use of hands
- 3 - able to transfer safely; definite need of hands
- 2 - able to transfer with verbal cueing and/or supervision (spotting)
- 1 - needs one person to assist
- 0 - needs two people to assist or supervise (close guard) to be safe

4. Standing Unsupported

INSTRUCTIONS: The child is asked to stand for 30 SECONDS without holding on or moving his/her feet. A taped line or footprints may be placed on the floor to help the child maintain a stationary foot position. The child may be engaged in non-stressful conversation to maintain attention span for thirty seconds. Weight shifting and equilibrium responses in feet are acceptable; movement of the foot in space (off the support surface) indicates end of the timed trial.

EQUIPMENT:

- a stop watch or watch with a second hand
- a twelve inch long masking tape line or two footprints placed shoulder width apart
- 4 - able to stand safely 30 SECONDS
- 3 - able to stand 30 SECONDS with supervision (spotting)
- 2 - able to stand 15 SECONDS unsupported
- 1 - needs several tries to stand 10 SECONDS unsupported
- 0 - unable to stand 10 SECONDS unassisted

Time in seconds: _____

Special Instructions: If a subject is able to stand 30 SECONDS unsupported, score full points for sitting unsupported. Proceed to item #6

5. Sitting With Back Unsupported And Feet Supported On The Floor

INSTRUCTIONS: Please sit with arms folded on your chest for 30 SECONDS. Child may be engaged in non-stressful conversation to maintain attention span for thirty seconds. Time should be stopped if protective reactions are observed in trunk or upper extremities.

EQUIPMENT:

- a stop watch or watch with a second hand
 - a bench of appropriate height to allow the feet to rest supported on the floor with the hips and knees maintained in ninety degrees of flexion.
- 4 - able to sit safely and securely 30 SECONDS
- 3 - able to sit 30 SECONDS under supervision (spotting) or may require definite use of upper extremities to maintain sitting position
- 2 - able to sit 15 SECONDS
- 1 - able to sit 10 SECONDS
- 0 - unable to sit 10 SECONDS without support

Time in seconds: _____

6. Standing Unsupported With Eyes Closed

INSTRUCTIONS: The child is asked to stand still with feet shoulder width apart and close his/her eyes for ten seconds. **Direction: "When I say close your eyes, I want you to stand still, close your eyes, and keep them closed until I say open."** If necessary, a blindfold may be used. Weight shifting and equilibrium responses in the feet are acceptable; movement of the foot in space (off the support surface) indicates end of timed trial. A taped line or footprints may be placed on the floor to help the child maintain a stationary foot position.

EQUIPMENT:

- a stop watch or watch with a second hand
- a twelve-inch long masking tape line or two footprints placed shoulder width apart
- blindfold

Best Of 3 Trials

- 4 - able to stand 10 seconds safely
- 3 - able to stand 10 seconds with supervision (spotting)
- 2 - able to stand 3 seconds
- 1 - unable to keep eyes closed 3 seconds but stays steady
- 0 - needs help to keep from falling

Time in seconds: _____

7. Standing Unsupported With Feet Together

INSTRUCTIONS: The child is asked to place his/her feet together and stand still without holding on. The child may be engaged in non-stressful conversation to maintain attention span for thirty seconds. Weight shifting and equilibrium responses in feet are acceptable; movement of the foot in

space (off the support surface) indicates end of timed trial. A taped line or footprints may be placed on the floor to help the child maintain stationary foot position.

EQUIPMENT:

- a stop watch or watch with a second hand
- a twelve inch long masking tape line or two footprints placed together

Best Of 3 Trials

- 4 - able to place feet together independently and stand 30 seconds safely
- 3 - able to place feet together independently and stand for 30 seconds with supervision (spotting)
- 2 - able to place feet together independently but unable to hold for 30 seconds
- 1 - needs help to attain position but able to stand 30 seconds with feet
- 0 - needs help to attain position and/or unable to hold for 30 seconds together

Time in seconds: _____

8. Standing Unsupported One Foot In Front

INSTRUCTIONS: The child is asked to stand with one foot in front of the other, heel to toe. If the child cannot place feet in a tandem position (directly in front), they should be asked to step forward far enough to allow the heel of one foot to be placed ahead of the toes of the stationary foot. A taped line and/or footprints may be placed on the floor to help the child maintain a stationary foot position. In addition to a visual demonstration, a single physical prompt (assistance with placement) may be given. The child may be engaged in non-stressful conversation to maintain his/her attention span for 30 seconds. Weight shifting and/or equilibrium reactions in the feet are acceptable. Timed trials should be stopped if either foot moves in space (leaves the support surface) and/or upper extremities support is utilized.

EQUIPMENT:

- Stopwatch or watch with a second hand
- 12-inch long masking tape line or two footprints placed heel to toe

Best Of 3 Trials

- 4 - able to place feet tandem independently and hold 30 seconds
- 3 - able to place foot ahead of other independently and hold 30 seconds.

Note: The length of the step must exceed the length of the stationary foot, and the width of the stance should approximate the subject's normal stride width.

- 2 - able to take small step independently and hold 30 seconds, or required assistance to place foot in front but can stand for 30 seconds.
- 1 - needs help to step but can hold 15 seconds
- 0 - loses balance while stepping or standing

Time in seconds: _____

9. Standing On One Leg

INSTRUCTIONS: The child is asked to stand on one leg for as long as he/she is able to without holding on. If necessary the child can be instructed to maintain his/her arms (hands) on his/her hips (waist). A taped line or footprints may be placed on the floor to help the child maintain a stationary foot position. Weight shifting and/or equilibrium reactions in the feet are acceptable. Timed trials should be stopped if the weight-bearing foot moves in space (leaves the support surface), the up limb touches the opposite leg or the support surface and/or upper extremities are utilized for support.

EQUIPMENT:

- A stopwatch or watch with a second hand.
- A twelve-inch long masking tape line or two footprints placed heel to toe.

3 Trials Average Score

- 4 - able to lift leg independently and hold 10 seconds.
- 3 - able to lift leg independently and hold 5 to 9 seconds.
- 2 - able to lift leg independently and hold 3 to 4 seconds.
- 1 - tries to lift leg; unable to hold 3 seconds but remains standing.
- 0 - unable to try or needs assist to prevent fall.

10. Turn 360 Degrees

INSTRUCTIONS: The child is asked to turn completely around in a full circle, STOP, and then turn a full circle in the other direction.

EQUIPMENT:

- A stopwatch or watch with a second hand
- 4 - able to turn 360 degrees safely in 4 seconds or less each way (total of less than eight seconds)
- 3 - able to turn 360 degrees safely in one direction only in 4 seconds or less, completes turn in other direction requires more than four seconds
- 2 - able to turn 360 degrees safely but slowly
- 1 - Needs close supervision (spotting) or constant verbal cueing
- 0 - Needs assistance while turning

Time in seconds: _____

11. Turning To Look Behind Left & Right Shoulders While Standing Still

INSTRUCTIONS: The child is asked to stand with his/her feet still, fixed in one place. "Follow this object as I move it. Keep watching it as I move it, but don't move your feet."

EQUIPMENT:

- A brightly colored object of at least two inches in size, or flash cards
- A twelve inch long masking tape line or two footprints placed shoulder width apart
- 4 - looks behind/over each shoulder; weight shifts include trunk rotation
- 3 - looks behind/over one shoulder with trunk rotation; weight shift in the opposite direction is to the level of the shoulder; no trunk rotation

- 2 - turns head to look to level of shoulder; no trunk rotation
- 1 - needs supervision (spotting) when turning; the chin moves greater than half the distance to the shoulder
- 0 - needs assist to keep from losing balance or falling; movement of the chin is less than half the distance to the shoulder

12. Pick Up Object From The Floor From A Standing Position

INSTRUCTIONS: The child is asked to pick up a chalkboard eraser placed approximately the length of his/her foot in front of his/her dominant foot. In children, where dominance is not clear, ask the child which hand they want to use and place the object in front of that foot.

EQUIPMENT:

- a chalkboard eraser
- a taped line or footprints
- 4 - able to pick up an eraser safely and easily
- 3 - able to pick up eraser but needs supervision (spotting)
- 2 - unable to pick up eraser but reaches 1 to 2 inches from eraser and keeps balance independently
- 1 - unable to pick up eraser; needs supervision (spotting) while attempting
- 0 - unable to try, needs assist to keep from losing balance or falling

13. Placing Alternate Foot On Step Stool While Standing Unsupported

INSTRUCTIONS: The child is asked to place each foot alternately on the step stool and to continue until each foot has touched the step/stool four times.

EQUIPMENT:

- a step/stool of four inches in height
- a stop watch or watch with a second hand.
- 4 - stands independently and safely and completes 8 steps in 20 seconds
- 3 - able to stand independently and complete 8 steps >20 seconds
- 2 - able to complete 4 steps without assistance, but requires close supervision (spotting)
- 1 - able to complete 2 steps; needs minimal assistance
- 0 - needs assistance to maintain balance or keep from falling, unable to try

Time in seconds: _____

14. Reaching Forward With Outstretched Arm While Standing

General Instruction And Set Up: A yardstick affixed to a wall via Velcro strips will be used as the measuring tool. A taped line and/or footprints are used to maintain a stationary foot position. The child will be asked to reach as far forward without falling, and without stepping over the line. The MCP joint of the child's fisted hand will be used as the anatomical reference point for measurements. Assistance may be given to initially position the child's arm at 90 degrees. Support may not be provided during the

reaching process. If 90 degrees of shoulder flexion cannot be obtained, then this item should be omitted.

INSTRUCTIONS: The child is asked to lift his/her arm up like this. "Stretch out your fingers, make a fist, and reach forward as far as you can without moving your feet."

EQUIPMENT:

- a yardstick or ruler
- a taped line or footprints
- a level

3 Trials Average Results

- 4 - can reach forward confidently >10 inches
 - 3 - can reach forward >5 inches, safely
 - 2 - can reach forward >2 inches, safely
 - 1 - reaches forward but needs supervision (spotting)
 - 0 - loses balance while trying, requires external support
-

Total Test Score: _____

Maximum Score = 56