Home Safety Assessment

Name: _____

Address: _____

Type of Home: _____

Date & person completing assessment: _____

Entrance and Exit of Home

- Doorbell – Can the person hear the doorbell
- Is there a peep hole for the front door
- Are there any safety issues with steps or ramp to enter home
- Are home numbers visible from the street
- Does the individual have someone to do the yard work or shovel snow
- Is the front landing clear of any clutter or trip hazards
- Lighting – Is there good lighting

General flow walking through the home and hallways

- Is there adequate space to walk around furniture
- Is there any furniture that poses a safety risk (sharp edges)
- Are there any cords, rugs, or clutter that could be a trip hazard
- Is there good lighting throughout the home
- Fire safety – Is there a working smoke detector
- Are there pets that present a trip hazard
- Are light switches easy to reach

Stairs and Steps

- Are stairs completely clear
- Is there a handrail and is it secure
- Does the handrail run the length of the steps

- Is there a light at the top and bottom of the steps
- Are steps loose or uneven or have carpeting that is not firmly attached

Bedrooms

- Lighting – Is there a light near the bed and along the path to the bathroom
- Clear paths – Is there a clear path from the bed to the bathroom and in and out of the room and/or any rugs that create a trip hazard
- Height of the bed – Is it too high or low
- Phone by the bed – Is it easily accessible
- Dressing and ADL items – Are they easily accessible

Bathrooms

- Bath mat – Is there a non-slip mat or self-stick strips in the tub or shower and a non-slip rug for exiting the tub or shower
- Grab bars – Are grab bars needed for the tub, shower or toilet
- Toilet height – Is the individual able to safety transfer from the toilet or do they need a raised seat
- Is the water heater set to avoid burning – It should be set to no more than 120 degrees
- Towel rods – Are towel rods secure and not used as a transfer aide

Kitchen

- Are items frequently used in a place to easily be reached
- Emergency information – Is this posted and easy to access
- Flooring – Are pathways clear and is flooring slippery
- Is there spoiled food in the refrigerator

Living Room

- Clear paths – Are there clear pathways to move around furniture in the room
- Lighting – Is there adequate lighting
- Mobility – Is the person able to independently get up and down from chairs and couches in the room
- Furniture – Is the furniture stable or have any issues with safety

Laundry / Basement

- Lighting – Is there adequate lighting
- Carrying laundry – Does the individual have to carry laundry room to room or up and down steps
- Laundry detergent – Are detergent containers too heavy to lift

Garage

- Are there steps to the garage and if so is there a good railing
- Pathways – Are pathways clear to access vehicle and to enter and exit the garage
- Garbage – Is the individual able to get trash containers out for pickup

Screening and Assessment Tools: Balance and Fall Risk
Summary Table

Test	Equipment Needed	Time	Fall Risk Score or Cut-off Scores	Clinical Connection
Berg Balance Scale	Score sheet Stopwatch Shoe or slipper Ruler Step or footstool Arm chair Chair without arms	@ 15 minutes	< 45 = greater risk (Berg) < 40 = almost 100% risk (Shumway-Cook)	Static (for ADLs in standing) & dynamic (for gait) balance, need for assistive device
Timed Up and Go Test	18" arm chair Stopwatch 3+ m of clear level space Measuring device	Depends on functional level of person being tested. Typically @5 minutes	12 sec or longer = fall risk (CDC) 13.5 sec or longer = fall risk (Shumway-Cook	Efficiency getting to bathroom, answering door or phone, exiting in case of emergency, getting on and off elevator
30 Second Chair Stand Test	17" chair Stopwatch	< 5 minutes	Less than norm for age = fall risk (CDC)	Any task that requires leg strength: transfers, steps, gait
5 Times Sit to Stand Test	16" chair Stopwatch	< 5 minutes	Lower time = better score	Any task that requires leg strength: transfers, steps, gait
4-Stage Balance Test	Stopwatch	@ 5 minutes	A person who cannot hold tandem stance for at least 10 sec is a risk for falls (CDC)	Balance needed for ADLs in static standing
Single Leg Stance	Stopwatch	@ 5 minutes	< 5 sec = fall risk (GeriNotes) < 6.5 sec = fall risk (Lusardi	Gait without a device, curb navigation, stair navigation, car transfers, lower body dressing, stepping in and

			et al)	out of shower or tub
Walkie-Talkie Test	@ 30’ level space	< 5 minutes	n/a	A (+) test suggests difficulty dividing attention between 2 tasks
Functional Reach Test	Ruler or yardstick	@ 5 minutes	Scores less than 6-7” indicate limited functional balance (Duncan et al)	Reaching and gathering items for meal preparation, self-care, and dressing; guide environmental recommendations
Four Square Step Test	Stopwatch 4 canes or PVC equivalent Gait belt	10-15 minutes	15 sec or greater = fall risk (Dite and Temple)	Safety ambulating on a sidewalk, navigating transitions in flooring, stepping in and out of shower, moving in tight spaces, kitchen navigation
Fullerton Advanced Balance Scale	Score sheet Stopwatch Pencil 12” ruler Masking tape 6” bench 2 Airex pads Yardstick Metronome or ap @30’ level space	10-12 minutes	Score of 25 or lower/40 produces the highest sensitivity and specificity in predicting falls in adults 65 and over (Hernandez and Rose)	Community ambulation, walking on uneven surfaces
Dynamic Gait Index	Score sheet Shoe box 2 cones Stairs 20’ level walkway	10-15 minutes	<19/24 = predictive of falls	Community ambulation, walking on uneven surfaces
Gait Speed	Stopwatch	@ 10 minutes	< 1.0 m/sec = needs	Safety crossing the street or

	Measuring device Masking tape Space for testing		intervention to reduce risk of falls (Fritz and Lusardi)	parking lot, exiting in case of emergency, getting through handicapped doorway, getting on and off the subway
Short Physical Performance Battery	Score sheet Standard chair Space for level walk test	@ 10 minutes	Community-dwelling older adults: score of less than or equal to 10 indicates mobility disability (Vasunilashorn et al)	Combines LE strength, gait and chair rise all in 1 test. Ties to same things as Chair Stand Test, Gait Speed, and TUG
Clinical Test of Sensory Integration on Balance	Score sheet Stopwatch 3” high density foam cushion	@20 minutes	n/a	Directs plan of care to focus on balance system affected
Mini Balance Evaluation Systems Test	Score sheet Stopwatch Medium density foam pad Box Armless chair Masking tape Space for walk test	10-15 minutes	n/a	Directs plan of care to focus on balance system affected
Function in Sitting Test	Score sheet Hospital bed Stopwatch	< 15 minutes	n/a	ADLs at a seated level: could be used to show need for a wheelchair cushion or specialized positioning program
Sitting Balance Scale	Score sheet Stopwatch 12” ruler Slipper Pen	@15 minutes	n/a	ADLs at a seated level: could be used to show need for a wheelchair cushion or specialized positioning program

	2# cuff weight 3-3 ½" book 15x15x5" foam piece Clipboard			
Activities-Specific Balance Confidence Scale Falls Efficacy Scale - International	Score sheets	10-15 minutes	n/a	Questionnaires used to assess an individual's level of confidence performing tasks inside and outside the home without falling

VAMC
SLUMS EXAMINATION

Questions about this assessment tool? E-mail aging@slu.edu

Name_____ Age_____

Is the patient alert?_____ Level of education_____

__/1 (1) **1. What day of the week is it?**

__/1 (1) **2. What is the year?**

__/1 (1) **3. What state are we in?**

4. Please remember these five objects. I will ask you what they are later.
Apple Pen Tie House Car

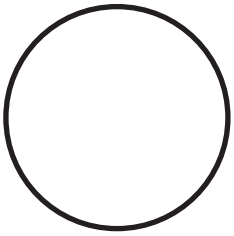
5. You have $100 and you go to the store and buy a dozen apples for $3 and a tricycle for $20.
(1) **How much did you spend?**
__/3 (2) **How much do you have left?**

6. Please name as many animals as you can in one minute.
__/3 (0) 0-4 animals (1) 5-9 animals (2) 10-14 animals (3) 15+ animals

__/5 **7. What were the five objects I asked you to remember? 1 point for each one correct.**

8. I am going to give you a series of numbers and I would like you to give them to me backwards. For example, if I say 42, you would say 24.
__/2 (0) 87 (1) 648 (1) 8537

9. This is a clock face. Please put in the hour markers and the time at ten minutes to eleven o'clock.



(2) Hour markers okay
__/4 (2) Time correct

(1) **10. Please place an X in the triangle.**

__/2 (1) **Which of the above figures is largest?**

11. I am going to tell you a story. Please listen carefully because afterwards, I'm going to ask you some questions about it.

Jill was a very successful stockbroker. She made a lot of money on the stock market. She then met Jack, a devastatingly handsome man. She married him and had three children. They lived in Chicago. She then stopped work and stayed at home to bring up her children. When they were teenagers, she went back to work. She and Jack lived happily ever after.

(2) **What was the female's name?** (2) **What work did she do?**
__/8 (2) **When did she go back to work?** (2) **What state did she live in?**

_____ **TOTAL SCORE**

SCORING

High School Education		Less than High School Education
27-30	Normal	25-30
21-26	Mild Neurocognitive Disorder	20-24
1-20	Dementia	1-19

CLINICIAN'S SIGNATURE DATE TIME

SH Tariq, N Tumosa, JT Chibnall, HM Perry III, and JE Morley. The Saint Louis University Mental Status (SLUMS) Examination for detecting mild cognitive impairment and dementia is more sensitive than the Mini-Mental Status Examination (MMSE) - A pilot study. *Am J Geriatr Psych* 14:900-10, 2006.

SHORT ORIENTATION-MEMORY-CONCENTRATION TEST

Patient Name: _____

Rater Name: _____

Date: _____

Instruction

Score 1 error for each incorrect response, to maximum for each item.

No.	Question	Maximum error	Score	x	Weight	
1.	What year is it now?	1	_____	x	4	=_____
2.	What month is it now?	1	_____	x	3	=_____
	Repeat this phrase John Brown, 42 Market Street, Chicago *or* (UK): John Brown, 42 West Street, Gateshead					
3.	About what time is it? (within one hour)	1	_____	x	3	=_____
4.	Count backwards 20 to 1	2	_____	x	2	=_____
5.	Say the months in reverse order	2	_____	x	2	=_____
6.	Repeat the phrase just given	5	_____	x	2	=_____
			Total error score			= _____/28

Reference

Katzman R, Brown T, Fuld P, Peck A, Schechter R, Schimmel H. "Validation of a short Orientation-Memory-Concentration Test of cognitive impairment."
***Am J Psychiatry*. 1983;140;734-739.**

Comment

A well-studied test, which is (so far) little used. It has been validated against neuropathology, and was derived from the longer Blessed scale. Reliability not formally tested. The score correlated highly (r = 0.92) with the full scale and it was almost as sensitive as the longer test. Any error score of 0-6 is within normal limits.

Scoring is difficult as originally devised and as shown, and it is more easily understood if scored positively, subtracting from maximum (for item) for each error. This gives a 0-28 score with a higher being better, scores over 20 being 'normal'.

Berg Balance Scale

Name: _____ Date: _____

Location: _____ Rater: _____

ITEM DESCRIPTION	SCORE (0-4)
1. Sitting to standing	_____
2. Standing unsupported	_____
3. Sitting unsupported	_____
4. Standing to sitting	_____
5. Transfers	_____
6. Standing with eyes closed	_____
7. Standing with feet together	_____
8. Reaching forward with outstretched arm	_____
9. Retrieving object from floor	_____
10. Turning to look behind	_____
11. Turning 360 degrees	_____
12. Placing alternate foot on stool	_____
13. Standing with one foot in front	_____
14. Standing on one foot	_____

Total _____

GENERAL INSTRUCTIONS
Please document each task and/or give instructions as written. When scoring, please record the lowest response category that applies for each item.

In most items, the subject is asked to maintain a given position for a specific time. Progressively more points are deducted if:

- the time or distance requirements are not met
- the subject's performance warrants supervision
- the subject touches an external support or receives assistance from the examiner

Subject should understand that they must maintain their balance while attempting the tasks. The choices of which leg to stand on or how far to reach are left to the subject. Poor judgment will adversely influence the performance and the scoring.

Equipment required for testing is a stopwatch or watch with a second hand, and a ruler or other indicator of 2, 5, and 10 inches. Chairs used during testing should be a reasonable height. Either a step or a stool of average step height may be used for item # 12.

Berg Balance Scale

1. SITTING TO STANDING
INSTRUCTIONS: Please stand up. Try not to use your hand for support.
( ) 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 aid to stand or stabilize
( ) 0 needs moderate or maximal assist to stand

2. STANDING UNSUPPORTED
INSTRUCTIONS: Please stand for two minutes without holding on.
( ) 4 able to stand safely for 2 minutes
( ) 3 able to stand 2 minutes with supervision
( ) 2 able to stand 30 seconds unsupported
( ) 1 needs several tries to stand 30 seconds unsupported
( ) 0 unable to stand 30 seconds unsupported

If a subject is able to stand 2 minutes unsupported, score full points for sitting unsupported. Proceed to item #4.

3. SITTING WITH BACK UNSUPPORTED BUT FEET SUPPORTED ON FLOOR OR ON A STOOL
INSTRUCTIONS: Please sit with arms folded for 2 minutes.
( ) 4 able to sit safely and securely for 2 minutes
( ) 3 able to sit 2 minutes under supervision
( ) 2 able to able to sit 30 seconds
( ) 1 able to sit 10 seconds
( ) 0 unable to sit without support 10 seconds

4. STANDING TO SITTING
INSTRUCTIONS: Please sit down.
( ) 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 assist to sit

5. TRANSFERS
INSTRUCTIONS: Arrange chair(s) for pivot transfer. Ask subject to transfer one way toward a seat with armrests and one way toward a seat without armrests. You may use two chairs (one with and one without armrests) or a bed and a chair.
( ) 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 cuing and/or supervision
( ) 1 needs one person to assist
( ) 0 needs two people to assist or supervise to be safe

6. STANDING UNSUPPORTED WITH EYES CLOSED
INSTRUCTIONS: Please close your eyes and stand still for 10 seconds.
( ) 4 able to stand 10 seconds safely
( ) 3 able to stand 10 seconds with supervision
( ) 2 able to stand 3 seconds
( ) 1 unable to keep eyes closed 3 seconds but stays safely
( ) 0 needs help to keep from falling

7. STANDING UNSUPPORTED WITH FEET TOGETHER
INSTRUCTIONS: Place your feet together and stand without holding on.
( ) 4 able to place feet together independently and stand 1 minute safely
( ) 3 able to place feet together independently and stand 1 minute with supervision
( ) 2 able to place feet together independently but unable to hold for 30 seconds
( ) 1 needs help to attain position but able to stand 15 seconds feet together
( ) 0 needs help to attain position and unable to hold for 15 seconds

Berg Balance Scale continued…..

8. REACHING FORWARD WITH OUTSTRETCHED ARM WHILE STANDING
INSTRUCTIONS: Lift arm to 90 degrees. Stretch out your fingers and reach forward as far as you can. (Examiner places a ruler at the end of fingertips when arm is at 90 degrees. Fingers should not touch the ruler while reaching forward. The recorded measure is the distance forward that the fingers reach while the subject is in the most forward lean position. When possible, ask subject to use both arms when reaching to avoid rotation of the trunk.)
( ) 4 can reach forward confidently 25 cm (10 inches)
( ) 3 can reach forward 12 cm (5 inches)
( ) 2 can reach forward 5 cm (2 inches)
( ) 1 reaches forward but needs supervision
( ) 0 loses balance while trying/requires external support

9. PICK UP OBJECT FROM THE FLOOR FROM A STANDING POSITION
INSTRUCTIONS: Pick up the shoe/slipper, which is place in front of your feet.
( ) 4 able to pick up slipper safely and easily
( ) 3 able to pick up slipper but needs supervision
( ) 2 unable to pick up but reaches 2-5 cm (1-2 inches) from slipper and keeps balance independently
( ) 1 unable to pick up and needs supervision while trying
( ) 0 unable to try/needs assist to keep from losing balance or falling

10. TURNING TO LOOK BEHIND OVER LEFT AND RIGHT SHOULDERS WHILE STANDING
INSTRUCTIONS: Turn to look directly behind you over toward the left shoulder. Repeat to the right. Examiner may pick an object to look at directly behind the subject to encourage a better twist turn.
( ) 4 looks behind from both sides and weight shifts well
( ) 3 looks behind one side only other side shows less weight shift
( ) 2 turns sideways only but maintains balance
( ) 1 needs supervision when turning
( ) 0 needs assist to keep from losing balance or falling

11. TURN 360 DEGREES
INSTRUCTIONS: Turn completely around in a full circle. Pause. Then turn a full circle in the other direction.
( ) 4 able to turn 360 degrees safely in 4 seconds or less
( ) 3 able to turn 360 degrees safely one side only 4 seconds or less
( ) 2 able to turn 360 degrees safely but slowly
( ) 1 needs close supervision or verbal cuing
( ) 0 needs assistance while turning

12. PLACE ALTERNATE FOOT ON STEP OR STOOL WHILE STANDING UNSUPPORTED
INSTRUCTIONS: Place each foot alternately on the step/stool. Continue until each foot has touch the step/stool four times.
( ) 4 able to stand independently and safely and complete 8 steps in 20 seconds
( ) 3 able to stand independently and complete 8 steps in > 20 seconds
( ) 2 able to complete 4 steps without aid with supervision
( ) 1 able to complete > 2 steps needs minimal assist
( ) 0 needs assistance to keep from falling/unable to try

13. STANDING UNSUPPORTED ONE FOOT IN FRONT
INSTRUCTIONS: (DEMONSTRATE TO SUBJECT) Place one foot directly in front of the other. If you feel that you cannot place your foot directly in front, try to step far enough ahead that the heel of your forward foot is ahead of the toes of the other foot. (To score 3 points, the length of the step should exceed the length of the other foot and the width of the stance should approximate the subject's normal stride width.)
( ) 4 able to place foot tandem independently and hold 30 seconds
( ) 3 able to place foot ahead independently and hold 30 seconds
( ) 2 able to take small step independently and hold 30 seconds
( ) 1 needs help to step but can hold 15 seconds
( ) 0 loses balance while stepping or standing

14. STANDING ON ONE LEG
INSTRUCTIONS: Stand on one leg as long as you can without holding on.
( ) 4 able to lift leg independently and hold > 10 seconds
( ) 3 able to lift leg independently and hold 5-10 seconds
( ) 2 able to lift leg independently and hold ≥ 3 seconds
( ) 1 tries to lift leg unable to hold 3 seconds but remains standing independently.
( ) 0 unable to try of needs assist to prevent fall

( ) TOTAL SCORE (Maximum = 56)

Scoring Form for
Fullerton Advanced Balance (FAB) Scale

Name: _____ Date of Test: _____

1. Stand with feet together and eyes closed

( ) 0 Unable to obtain the correct standing position independently

( ) 1 Able to obtain the correct standing position independently but unable to maintain the position or keep the eyes closed for more than 10 seconds

( ) 2 Able to maintain the correct standing position with eyes closed for more than 10 seconds but less than 30 seconds

( ) 3 Able to maintain the correct standing position with eyes closed for 30 seconds but requires close supervision

( ) 4 Able to maintain the correct standing position safely with eyes closed for 30 seconds

2. Reach forward to retrieve an object (pencil) held at shoulder height with outstretched arm

( ) 0 Unable to reach the pencil without taking more than two steps

( ) 1 Able to reach the pencil but needs to take two steps

( ) 2 Able to reach the pencil but needs to take one step

( ) 3 Can reach the pencil without moving the feet but requires supervision

( ) 4 Can reach the pencil safely and independently without moving the feet

3. Turn 360 degrees in right and left directions

( ) 0 Needs manual assistance while turning

( ) 1 Needs close supervision or verbal cueing while turning

( ) 2 Able to turn 360 degrees but takes more than four steps in both directions

( ) 3 Able to turn 360 degrees but unable to complete in four steps or fewer in one direction

( ) 4 Able to turn 360 degrees safely taking four steps or fewer in both directions

***4. Step up onto and over a 6-inch bench**

( ) 0 Unable to step up onto the bench without loss of balance or manual assistance

( ) 1 Able to step up onto the bench with leading leg, but trailing leg contacts the bench or leg swings around the bench during the swing-through phase in both directions

( ) 2 Able to step up onto the bench with leading leg, but trailing leg contacts the bench or swings around the bench during the swing-through phase in one direction

( ) 3 Able to correctly complete the step up and over in both directions but requires close supervision in one or both directions

( ) 4 Able to correctly complete the step up and over in both directions safely and independently

***5. Tandem walk**

( ) 0 Unable to complete 10 steps independently
( ) 1 Able to complete the 10 steps with more than five interruptions
( ) 2 Able to complete the 10 steps with three to five interruptions
( ) 3 Able to complete the 10 steps with one to two interruptions
( ) 4 Able to complete the 10 steps independently and with no interruptions

***6. Stand on one leg**

( ) 0 Unable to try or needs assistance to prevent falling
( ) 1 Able to lift leg independently but unable to maintain position for more than 5 seconds
( ) 2 Able to lift leg independently and maintain position for more than 5 but less than 12 seconds
( ) 3 Able to lift leg independently and maintain position for 12 or more seconds but less than 20 seconds
( ) 4 Able to lift leg independently and maintain position for the full 20 seconds

***7. Stand on foam with eyes closed**

( ) 0 Unable to step onto foam or maintain standing position independently with eyes open
( ) 1 Able to step onto foam independently and maintain standing position but unable or unwilling to close eyes
( ) 2 Able to step onto foam independently and maintain standing position with eyes closed for 10 seconds or less
( ) 3 Able to step onto foam independently and maintain standing position with eyes closed for more than 10 seconds but less than 20 seconds
( ) 4 Able to step onto foam independently and maintain standing position with eyes closed for 20 seconds

Do not introduce test item #8 if test item #4 was not performed safely and/or it is contraindicated to perform this test item (review test administration instructions for contraindications). Score a zero and move to next test item.

8. Two-footed jump

( ) 0 Unwilling or unable to attempt or attempts to initiate two-footed jump, but one or both feet do not leave the floor
( ) 1 Able to initiate two-footed jump, but one foot either leaves the floor or lands before the other
( ) 2 Able to perform two-footed jump, but unable to jump farther than the length of their own feet
( ) 3 Able to perform two-footed jump and achieve a distance greater than the length of their own feet
( ) 4 Able to perform two-footed jump and achieve a distance greater than twice the length of their own feet

9. Walk with head turns

( ) 0 Unable to walk 10 steps independently while maintaining 30^{o} head turns at an established pace

( ) 1 Able to walk 10 steps independently but unable to complete required number of 30^{o} head turns at an established pace

( ) 2 Able to walk 10 steps but veers from a straight line while performing 30^{o} head turns at an established pace

( ) 3 Able to walk 10 steps in a straight line while performing 30^{o} head turns at an established pace but head turns less than 30^{o} in one or both directions

( ) 4 Able to walk 10 steps in a straight line while performing required number of 30^{o} head turns at established pace

10. Reactive postural control

( ) 0 Unable to maintain upright balance; no observable attempt to step; requires manual assistance to restore balance

( ) 1 Unable to maintain upright balance; takes two or more steps and requires manual assistance to restore balance

( ) 2 Unable to maintain upright balance; takes more than two steps but is able to restore balance independently

( ) 3 Unable to maintain upright balance; takes two steps but is able to restore balance independently

( ) 4 Unable to maintain upright balance but able to restore balance independently with only one step

TOTAL: 40 POINTS

<u>Evaluating Risk for Falls</u>:

Long Form Fullerton Advanced Balance (FAB) scale Cut-Off Score: ≤ 25/40 Points

Short-Form Fullerton Advanced Balance (FAB) scale Cut-Off Score: ≤ 9/16 Points

Dynamic Gait Index

Description:
Developed to assess the likelihood of falling in older adults. Designed to test eight facets of gait.
Equipment needed: Box (Shoebox), Cones (2), Stairs, 20' walkway, 15" wide
Completion:
Time: 15 minutes
Scoring: A four-point ordinal scale, ranging from 0-3. "0" indicates the lowest level of function and "3" the highest level of function.
Total Score = 24
Interpretation: **≤ 19/24 = predictive of falls in the elderly**
> 22/24 = safe ambulators

1. Gait level surface _____
Instructions: Walk at your normal speed from here to the next mark (20')
Grading: Mark the lowest category that applies.
(3) Normal: Walks 20', no assistive devices, good sped, no evidence for imbalance, normal gait pattern
(2) Mild Impairment: Walks 20', uses assistive devices, slower speed, mild gait deviations.
(1) Moderate Impairment: Walks 20', slow speed, abnormal gait pattern, evidence for imbalance.
(0) Severe Impairment: Cannot walk 20' without assistance, severe gait deviations or imbalance.

2. Change in gait speed _____
Instructions: Begin walking at your normal pace (for 5'), when I tell you "go," walk as fast as you can (for 5'). When I tell you "slow," walk as slowly as you can (for 5').
Grading: Mark the lowest category that applies.
(3) Normal: Able to smoothly change walking speed without loss of balance or gait deviation. Shows a significant difference in walking speeds between normal, fast and slow speeds.
(2) Mild Impairment: Is able to change speed but demonstrates mild gait deviations, or not gait deviations but unable to achieve a significant change in velocity, or uses an assistive device.
(1) Moderate Impairment: Makes only minor adjustments to walking speed, or accomplishes a change in speed with significant gait deviations, or changes speed but has significant gait deviations, or changes speed but loses balance but is able to recover and continue walking.
(0) Severe Impairment: Cannot change speeds, or loses balance and has to reach for wall or be caught.

3. Gait with horizontal head turns _____
Instructions: Begin walking at your normal pace. When I tell you to "look right," keep walking straight, but turn your head to the right. Keep looking to the right until I tell you, "look left," then keep walking straight and turn your head to the left. Keep your head to the left until I tell you "look straight," then keep walking straight, but return your head to the center.
Grading: Mark the lowest category that applies.
(3) Normal: Performs head turns smoothly with no change in gait.
(2) Mild Impairment: Performs head turns smoothly with slight change in gait velocity, i.e., minor disruption to smooth gait path or uses walking aid.
(1) Moderate Impairment: Performs head turns with moderate change in gait velocity, slows down, staggers but recovers, can continue to walk.
(0) Severe Impairment: Performs task with severe disruption of gait, i.e., staggers outside 15" path, loses balance, stops, reaches for wall.

4. Gait with vertical head turns _____

Instructions: Begin walking at your normal pace. When I tell you to "look up," keep walking straight, but tip your head up. Keep looking up until I tell you, "look down," then keep walking straight and tip your head down. Keep your head down until I tell you "look straight," then keep walking straight, but return your head to the center.

Grading: Mark the lowest category that applies.

(3) Normal: Performs head turns smoothly with no change in gait.

(2) Mild Impairment: Performs head turns smoothly with slight change in gait velocity, i.e., minor disruption to smooth gait path or uses walking aid.

(1) Moderate Impairment: Performs head turns with moderate change in gait velocity, slows down, staggers but recovers, can continue to walk.

(0) Severe Impairment: Performs task with severe disruption of gait, i.e., staggers outside 15" path, loses balance, stops, reaches for wall.

5. Gait and pivot turn _____

Instructions: Begin walking at your normal pace. When I tell you, "turn and stop," turn as quickly as you can to face the opposite direction and stop.

Grading: Mark the lowest category that applies.

(3) Normal: Pivot turns safely within 3 seconds and stops quickly with no loss of balance.

(2) Mild Impairment: Pivot turns safely in > 3 seconds and stops with no loss of balance.

(1) Moderate Impairment: Turns slowly, requires verbal cueing, requires several small steps to catch balance following turn and stop.

(0) Severe Impairment: Cannot turn safely, requires assistance to turn and stop.

6. Step over obstacle ____

Instructions: Begin walking at your normal speed. When you come to the shoebox, step over it, not around it, and keep walking.

Grading: Mark the lowest category that applies.

(3) Normal: Is able to step over the box without changing gait speed, no evidence of imbalance.

(2) Mild Impairment: Is able to step over box, but must slow down and adjust steps to clear box safely.

(1) Moderate Impairment: Is able to step over box but must stop, then step over. May require verbal cueing.

(0) Severe Impairment: Cannot perform without assistance.

7. Step around obstacles _____

Instructions: Begin walking at normal speed. When you come to the first cone (about 6' away), walk around the right side of it. When you come to the second cone (6' past first cone), walk around it to the left.

Grading: Mark the lowest category that applies.

(3) Normal: Is able to walk around cones safely without changing gait speed; no evidence of imbalance.

(2) Mild Impairment: Is able to step around both cones, but must slow down and adjust steps to clear cones.

(1) Moderate Impairment: Is able to clear cones but must significantly slow, speed to accomplish task, or requires verbal cueing.

(0) Severe Impairment: Unable to clear cones, walks into one or both cones, or requires physical assistance.

8. Steps _____

Instructions: Walk up these stairs as you would at home, i.e., using the railing if necessary. At the top, turn around and walk down.

Grading: Mark the lowest category that applies.

(3) Normal: Alternating feet, no rail.

(2) Mild Impairment: Alternating feet, must use rail.

(1) Moderate Impairment: Two feet to a stair, must use rail.

(0) Severe Impairment: Cannot do safely.

TOTAL SCORE: ___ / 24

References:

1. Herdman SJ. ***Vestibular Rehabilitation***. 2nd ed. Philadelphia, PA: F.A.Davis Co; 2000.
2. Shumway-Cook A, Woollacott M. *Motor Control Theory and Applications*, Williams and Wilkins Baltimore, 1995: 323-324

Study ID _____ Date _____ Tester Initials _____

SHORT PHYSICAL PERFORMANCE BATTERY PROTOCOL AND SCORE SHEET

All of the tests should be performed in the same order as they are presented in this protocol. Instructions to the participants are shown in bold italic and should be given exactly as they are written in this script.

1. BALANCE TESTS

The participant must be able to stand unassisted without the use of a cane or walker. You may help the participant to get up.

> ***Now let's begin the evaluation. I would now like you to try to move your body in different movements. I will first describe and show each movement to you. Then I'd like you to try to do it. If you cannot do a particular movement, or if you feel it would be unsafe to try to do it, tell me and we'll move on to the next one. Let me emphasize that I do not want you to try to do any exercise that you feel might be unsafe.***
>
> ***Do you have any questions before we begin?***

A. Side-by-Side Stand

1. ***Now I will show you the first movement***.
2. (Demonstrate) ***I want you to try to stand with your feet together, side-by-side, for about 10 seconds.***
3. ***You may use your arms, bend your knees, or move your body to maintain your balance, but try not to move your feet. Try to hold this position until I tell you to stop.***
4. Stand next to the participant to help him/her into the side-by-side position.
5. Supply just enough support to the participant's arm to prevent loss of balance.
6. When the participant has his/her feet together, ask ***"Are you ready?"***
7. Then let go and begin timing as you say, ***"Ready, begin."***
8. Stop the stopwatch and say ***"Stop"*** after 10 seconds or when the participant steps out of position or grabs your arm.
9. If participant is unable to hold the position for 10 seconds, record result and go to the gait speed test.

Study ID _____ Date _____ Tester Initials _____

B. Semi-Tandem Stand

1. ***Now I will show you the second movement***.

2. (Demonstrate) ***Now I want you to try to stand with the side of the heel of one foot touching the big toe of the other foot for about 10 seconds. You may put either foot in front, whichever is more comfortable for you.***

3. ***You may use your arms, bend your knees, or move your body to maintain your balance, but try not to move your feet. Try to hold this position until I tell you to stop.***

4. Stand next to the participant to help him/her into the semi-tandem position

5. Supply just enough support to the participant's arm to prevent loss of balance.

6. When the participant has his/her feet together, ask ***"Are you ready?"***

7. Then let go and begin timing as you say ***"Ready, begin."***

8. Stop the stopwatch and say ***"Stop"*** after 10 seconds or when the participant steps out of position or grabs your arm.

9. If participant is unable to hold the position for 10 seconds, record result and go to the gait speed test.

C. Tandem Stand

1. ***Now I will show you the third movement***.

2. (Demonstrate) ***Now I want you to try to stand with the heel of one foot in front of and touching the toes of the other foot for about 10 seconds. You may put either foot in front, whichever is more comfortable for you.***

3. ***You may use your arms, bend your knees, or move your body to maintain your balance, but try not to move your feet. Try to hold this position until I tell you to stop.***

4. Stand next to the participant to help him/her into the tandem position.

5. Supply just enough support to the participant's arm to prevent loss of balance.

6. When the participant has his/her feet together, ask ***"Are you ready?"***

7. Then let go and begin timing as you say, ***"Ready, begin."***

8. Stop the stopwatch and say ***"Stop"*** after 10 seconds or when the participant steps out of position or grabs your arm.

Study ID _____ Date _____ Tester Initials _____

SCORING:

A. Side-by-side-stand

Held for 10 sec ❒ 1 point
Not held for 10 sec ❒ 0 points
Not attempted ❒ 0 points
If 0 points, end Balance Tests

Number of seconds held if less than 10 sec: ___._ _sec

If participant did not attempt test or failed, circle why:

Tried but unable	1
Participant could not hold position unassisted	2
Not attempted, you felt unsafe	3
Not attempted, participant felt unsafe	4
Participant unable to understand instructions	5
Other (specify) _____	6
Participant refused	7

B. Semi-Tandem Stand

Held for 10 sec ❒ 1 point
Not held for 10 sec ❒ 0 points
Not attempted ❒ 0 points *(circle reason above)*
If 0 points, end Balance Tests

Number of seconds held if less than 10 sec: ___._ _sec

C. Tandem Stand

Held for 10 sec ❒ 2 points
Held for 3 to 9.99 sec ❒ 1 point
Held for < than 3 sec ❒ 0 points
Not attempted ❒ 0 points (circle reason above)

Number of seconds held if less than 10 sec: ___._ _sec

D. Total Balance Tests score_____(sum points)

Comments: _____

Study ID _____ Date _____ Tester Initials _____

2. GAIT SPEED TEST

Now I am going to observe how you normally walk. If you use a cane or other walking aid and you feel you need it to walk a short distance, then you may use it.

A. First Gait Speed Test

1. ***This is our walking course. I want you to walk to the other end of the course at your usual speed, just as if you were walking down the street to go to the store.***

2. Demonstrate the walk for the participant.

3. ***Walk all the way past the other end of the tape before you stop. I will walk with you. Do you feel this would be safe?***

4. Have the participant stand with both feet touching the starting line.

5. ***When I want you to start, I will say: "Ready, begin."*** When the participant acknowledges this instruction say: ***"Ready, begin."***

6. Press the start/stop button to start the stopwatch as the participant begins walking.

7. Walk behind and to the side of the participant.

8. Stop timing when one of the participant's feet is completely across the end line.

B. Second Gait Speed Test

1. ***Now I want you to repeat the walk. Remember to walk at your usual pace, and go all the way past the other end of the course.***

2. Have the participant stand with both feet touching the starting line.

3. ***When I want you to start, I will say: "Ready, begin."*** When the participant acknowledges this instruction say: ***"Ready, begin."***

4. Press the start/stop button to start the stopwatch as the participant begins walking.

5. Walk behind and to the side of the participant.

6. Stop timing when one of the participant's feet is completely across the end line.

Study ID _____ Date _____ Tester Initials _____

GAIT SPEED TEST SCORING:

Length of walk test course: Four meters ❒ Three meters ❒

A. Time for First Gait Speed Test (sec)

1. Time for 3 or 4 meters __ __.__ __sec
2. If participant did not attempt test or failed, circle why:

Tried but unable	1
Participant could not walk unassisted	2
Not attempted, you felt unsafe	3
Not attempted, participant felt unsafe	4
Participant unable to understand instructions	5
Other (Specify) _____	6
Participant refused	7

Complete score sheet and go to chair stand test

3. Aids for first walk.....None ❒ Cane ❒ Other ❒

Comments:_____

_____

_____

B. Time for Second Gait Speed Test (sec)

1. Time for 3 or 4 meters __ __.__ __ sec
2. If participant did not attempt test or failed, circle why:

Tried but unable	1
Participant could not walk unassisted	2
Not attempted, you felt unsafe	3
Not attempted, participant felt unsafe	4
Participant unable to understand instructions	5
Other (Specify)	6
Participant refused	7

3. Aids for second walk..... None ❒ Cane ❒ Other ❒

What is the time for the faster of the two walks?
Record the shorter of the two times __ __.__ __ sec
[If only 1 walk done, record that time] __ __.__ __ sec

If the participant was unable to do the walk: ❒ **0 points**

For 4-Meter Walk:		**For 3-Meter Walk:**	
If time is more than 8.70 sec:	❒ **1 point**	If time is more than 6.52 sec:	❒ **1 point**
If time is 6.21 to 8.70 sec:	❒ **2 points**	If time is 4.66 to 6.52 sec:	❒ **2 points**
If time is 4.82 to 6.20 sec:	❒ **3 points**	If time is 3.62 to 4.65 sec:	❒ **3 points**
If time is less than 4.82 sec:	❒ **4 points**	If time is less than 3.62 sec:	❒ **4 points**

Study ID _____ Date _____ Tester Initials _____

3. CHAIR STAND TEST

Single Chair Stand

1. ***Let's do the last movement test. Do you think it would be safe for you to try to stand up from a chair without using your arms?***

2. ***The next test measures the strength in your legs.***

3. (Demonstrate and explain the procedure.) ***First, fold your arms across your chest and sit so that your feet are on the floor; then stand up keeping your arms folded across your chest.***

4. ***Please stand up keeping your arms folded across your chest.*** (Record result).

5. If participant cannot rise without using arms, say ***"Okay, try to stand up using your arms."*** This is the end of their test. Record result and go to the scoring page.

Repeated Chair Stands

1. ***Do you think it would be safe for you to try to stand up from a chair five times without using your arms?***

2. (Demonstrate and explain the procedure): ***Please stand up straight as QUICKLY as you can five times, without stopping in between. After standing up each time, sit down and then stand up again. Keep your arms folded across your chest. I'll be timing you with a stopwatch.***

3. When the participant is properly seated, say: ***"Ready? Stand"*** and begin timing.

4. Count out loud as the participant arises each time, up to five times.

5. Stop if participant becomes tired or short of breath during repeated chair stands.

6. Stop the stopwatch when he/she has straightened up completely for the fifth time.

7. Also stop:
   - If participant uses his/her arms
   - After 1 minute, if participant has not completed rises
   - At your discretion, if concerned for participant's safety

8. If the participant stops and appears to be fatigued before completing the five stands, confirm this by asking ***"Can you continue?"***

9. If participant says "Yes," continue timing. If participant says "No," stop and reset the stopwatch.

Study ID _____ Date _____ Tester Initials _____

SCORING

Single Chair Stand Test

		YES	NO	
A.	Safe to stand without help	❒	❒	
B.	Results:			
	Participant stood without using arms	❒		→ Go to Repeated Chair Stand Test
	Participant used arms to stand	❒		→ End test; score as 0 points
	Test not completed	❒		→ End test; score as 0 points

C. If participant did not attempt test or failed, circle why:

Tried but unable	1
Participant could not stand unassisted	2
Not attempted, you felt unsafe	3
Not attempted, participant felt unsafe	4
Participant unable to understand instructions	5
Other (Specify) _____	6
Participant refused	7

Repeated Chair Stand Test

		YES	NO
A.	Safe to stand five times	❒	❒

B. If five stands done successfully, record time in seconds.

Time to complete five stands __ __.__ __ sec

C. If participant did not attempt test or failed, circle why:

Tried but unable	1
Participant could not stand unassisted	2
Not attempted, you felt unsafe	3
Not attempted, participant felt unsafe	4
Participant unable to understand instructions	5
Other (Specify)	6
Participant refused	7

Scoring the Repeated Chair Test

Participant unable to complete 5 chair stands or completes stands in >60 sec:	❒ 0 points
If chair stand time is 16.70 sec or more:	❒ 1 points
If chair stand time is 13.70 to 16.69 sec:	❒ 2 points
If chair stand time is 11.20 to 13.69 sec:	❒ 3 points
If chair stand time is 11.19 sec or less:	❒ 4 points

Study ID _____ Date _____ Tester Initials _____

Scoring for Complete Short Physical Performance Battery

Test Scores

Total Balance Test score	_____	**points**
Gait Speed Test score	_____	**points**
Chair Stand Test score	_____	**points**
Total Score	_____	**points (sum of points above)**

Clinical Test of Sensory Organization and Balance (CTSIB)

This test is the therapist's version of the Computerized Dynamic Posturography which attempts to measure the way that vision, vestibular and somatosensory interaction allows us to maintain our balance against the forces of gravity. The test was developed by Shumway-Cook and Horak in 1986 (*Phys Ther*) and further discussed as a clinical tool in 1987 (*Phys Ther*). Patients with uncompensated unilateral vestibular deficits have been shown to have difficulty when visual and support surface information are manipulated (Nasher, 1982).

General Instructions:
Have the subject remove their shoes. Have the subject stand erect without moving, looking straight ahead as long as possible or until the trial is over.

Instructions:

Condition 1:
Stand on the floor with arms across your chest and your hands touching your shoulders, feet together with ankle bones touching, and hold for 30 sec (Horak, 87)

Condition 2:
Stand on the floor with arms across your chest and your hands touching your shoulders, feet together with ankle bones touching with your eyes closed, and hold for 30 sec (Horak, 87)

Condition 3:
Stand on the floor with arms across your chest with your hands touching your shoulders, feet together with ankle bones touching, with the visual conflict dome on your head with your eyes open, and hold for 30 sec (Horak, 87)

Condition 4:
Stand on a 3 inch high density foam cushion with your arms crossed and touching your shoulders, feet together with the ankle bones touching, and your eyes open, holding for 30 sec (Horak, 87)

Condition 5:
Stand on a 3 inch high density foam cushion with your arms crossed and touching your shoulders, feet together with ankle bones touching, and your eyes closed, holding for 30 sec (Horak, 87)

Condition 6:
Stand on a 3 inch high density foam cushion with your arms crossed and touching your shoulders, feet together with ankle bones touching, and your eyes open looking into thedome, holding for 30 sec (Horak, 87)

In Horak's article (1987) she suggests that each test be performed 3 times. She also suggested that a sway grid could be used to quantify motion in addition to documenting the tine that the subject could maintain the position. Shumway-Cook and Horak (1986) also suggest that sway may be quantified in the following manner:

1 = minimal sway
2 = mild sway
3 = moderate sway
4 = fall

Criteria to stop timing the task:
The subject's arms moved from the original position, the subject's foot moved, or they opened their eyes during an eyes closed trial.

In Condition 5 and 6, we believe that the only system that you can use to maintain your balance is your vestibular system. Weber and Cass (1993) determined that falls on Condition 5 correlated with the results of the CDP 90% of the time.

FUNCTION IN SITTING TEST (FIST) RESULTS

FIST Test Item ½ femur on surface; hips & knees flexed to 90° □ Used step/stool for positioning & foot support		**Date:**	**Date:**	**Date:**
Randomly Administered Once	**Anterior Nudge**: superior sternum			
	Posterior Nudge: between scapular spines			
	Lateral Nudge: to dominant side at acromion			
Static sitting: 30 seconds				
Sitting, shake 'no': left and right				
Sitting, eyes closed: 30 seconds				
Sitting, lift foot: dominant side, lift foot 1 inch twice				
Pick up object from behind: object at midline, hands breadth posterior				
Forward reach: use dominant arm, must complete full motion				
Lateral reach: use dominant arm, clear opposite ischial tuberosity				
Pick up object from floor: from between feet				
Posterior scooting: move backwards 2 inches				
Anterior scooting: move forward 2 inches				
Lateral scooting: move to dominant side 2 inches				
TOTAL		/ 56	/ 56	/ 56
Administered by:				
Notes/comments:				

Scoring Key:
4 = Independent (completes task independently & successfully)
3 = Verbal cues/increased time (completes task independently & successfully and only needs more time/cues)
2 = Upper extremity support (must use UE for support or assistance to complete successfully)
1 = Needs assistance (unable to complete w/o physical assist; **document level: min, mod, max**)
0 = Dependent (requires complete physical assist; unable to complete successfully even w/physical assist)

SITTING BALANCE SCALE

Note: all sitting items are performed with the patient sitting unsupported on a surface with both feet in weight bearing unless otherwise indicated.

Equipment needed: Score sheet, 12-inch ruler, pen, slipper, PDR or other item 3-3.5 inches thick, stopwatch, 2 lb cuff weight, clipboard, 1"5 x 15" x 5" piece of foam

1. SITTING UNSUPPORTED (eyes open)

INSTRUCTIONS: Please sit with your arms folded for 60 seconds. (Examiner must make sure the patient's feet are in weight bearing.)

( ) 4 able to sit safely and securely 60 seconds
( ) 3 able to sit 60 seconds under supervision
( ) 2 able to sit 30 seconds
( ) 1 able to sit 10 seconds
( ) 0 unable to sit without support 10 seconds

2. SITTING UNSUPPORTED (eyes closed)

INSTRUCTIONS: Please sit with your eyes closed for 30 seconds. (Examiner must make sure the patient's feet are in weight bearing.)

( ) 4 able to sit safely and securely 30 seconds
( ) 3 able to sit 30 seconds under supervision
( ) 2 able to sit 10 seconds
( ) 1 able to sit 3 seconds
( ) 0 unable to sit without support 3 seconds

3. SITTING UNSUPPORTED WITH ARMS AS LEVERS

INSTRUCTIONS: Please lift this cuff weight out in front of you with your arm straight. (Starting position for all scores is with patient's hands in their lap. Examiner must ensure that the arm moves to at least 90 degrees of shoulder flexion for a score of 4 or 3. If the patient has hemiplegia, test using the unaffected arm.)

( ) 4 able to sit while lifting a 2-lb cuff weight at 90 deg. shoulder flexion
( ) 3 able to sit while lifting one arm to 90 deg. flexion
( ) 2 able to sit with hands folded across chest
( ) 1 able to sit with hands in lap
( ) 0 able to sit with hands at side on the mat

4. REACHING FORWARD WITH OUTSTRETCHED ARM WHILE SITTING

INSTRUCTIONS: Reach forward and touch this pen. (Ask the patient to make a fist and extend arm forward to shoulder height (approximately 90 degrees). Place a 12 inch ruler touching patient's fist in line with patient's arm. Hold up a pen 12 inches from patient's fist. Ask the patient to try to touch the pen with knuckles without losing balance. Note distance reached.)

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

5. PICK UP AN OBJECT FROM THE FLOOR WHILE SITTING UNSUPPORTED

INSTRUCTIONS: Pick up the slipper. (Examiner should place the slipper on the floor 3 inches in front of the patient's toes.)

( ) 4 able to pick up slipper without losing balance
( ) 3 able to pick up slipper but needs supervision for balance
( ) 2 unable to pick up slipper but reaches 1-2 inches (2-5 cm) from slipper and keeps balance independently
( ) 1 unable to pick up and needs supervision while trying
( ) 0 unable to try/needs assist to keep from losing balance or falling

6. PLACE ALTERNATE FOOT ON LARGE BOOK (PDR) WHILE SITTING UNSUPPORTED

INSTRUCTIONS: Place each foot alternately on this book four times. (Place a *Physician's Desk Reference* (PDR) or other item that is 3-3½ inches high, 6 inches in front of the toes. Have patient alternately touch feet to the top of the PDR. Patient should continue until each foot has touched the PDR four times. Patients with hemiplegia or unilateral amputation may perform the task with their uninvolved leg.)

( ) 4 able to sit independently and safely complete 8 steps in 20 seconds
( ) 3 able to sit independently and complete 8 steps in > 20 seconds
( ) 2 able to complete 4 steps without aid with supervision
( ) 1 able to complete > 2 steps needs minimal assist
( ) 0 needs assistance to keep from falling/unable to try

7. REACHING UNILATERALLY WITH OUTSTRETCHED ARM WHILE SITTING UNSUPPORTED
INSTRUCTIONS: Reach to the side and touch this pen. (Ask patient to make a fist and extend arm out to the side, laterally, to shoulder height (approximately 90 degrees). Place a 12 inch ruler touching the patient's fist in line with patient's arm. Hold up a pen 12 inches from patient's fist. Ask patient to try to touch the pen with knuckles without losing balance. Note distance reached. If the patient is in a wheelchair, remove the arms of the chair.)
( ) 4 can reach laterally confidently > 10 inches
( ) 3 can reach laterally > 5 inches
( ) 2 can reach laterally > 2 inches
( ) 1 reaches laterally but needs supervision
( ) 0 loses balance while trying/requires external support

8. TURNING TO LOOK BEHIND OVER LEFT AND RIGHT SHOULDERS WHILE SITTING
INSTRUCTIONS: Turn to look directly behind you over toward your left shoulder. Repeat to the right. (Patient is seated with hands in lap. Examiner may identify an object directly behind the patient to encourage a complete turn of the trunk.)
( ) 4 looks behind from both sides while shifting weight appropriately
( ) 3 looks behind one side only other side shows less weight shift
( ) 2 turns sideways only but maintains balance
( ) 1 needs supervision when turning
( ) 0 needs assist to keep from losing balance

9. LATERAL BEND TO ELBOW IN SITTING
INSTRUCTIONS: While facing forward, bend sideways to your left until your forearm touches the clipboard and return to an upright position. Repeat to the right. (Place a clipboard level with the sitting surface. Patients with hemiplegia should perform this task to both sides.)
( ) 4 able to smoothly perform the motion bilaterally and return to midline
( ) 3 able to perform 2/3 of the motion or difficulty returning to midline on one or both sides
( ) 2 able to perform 1/3 of the motion or only performs unilaterally
( ) 1 initiates motion, but requires assistance to go further
( ) 0 unable to complete motion

10. SIT TO STAND TRANSFERS
INSTRUCTIONS: Please stand up. Try not to use your hands for support.
( ) 4 able to transfer safely with the minor use of hands
( ) 3 able to transfer safely with verbal cuing and/or supervision
( ) 2 able to transfer with assistance x 1
( ) 1 able to transfer with assistance x 2
( ) 0 unable to transfer or needs a lift

Note: On the following item have the patient sit unsupported on a 15" x 15"x5" piece of foam to further evaluate sitting balance. Density should be such that when the patient sits on the foam, their balance is challenged but the foam should not be compressed all the way to the chair seat. The patient's feet should remain in weight bearing.

11. PICK UP AN OBJECT FROM THE FLOOR WHILE SITTING UNSUPPORTED ON FOAM
INSTRUCTIONS: Pick up the slipper that is placed 3 inches in front of your toes. (Examiner should place the slipper on the floor 3 inches in front of the patient's toes.)
( ) 4 able to pick up slipper safely and easily
( ) 3 able to pick up slipper but needs supervision
( ) 2 unable to pick up slipper but reaches 1-2 inches (2-5 cm) from slipper and keeps balance independently
( ) 1 unable to pick up and needs supervision while trying
( ) 0 unable to try/needs assist to keep from losing balance or falling

_____ TOTAL SCORE (Maximum = 44)

The Activities-specific Balance Confidence (ABC) Scale*

Administration:
The ABC can be self-administered or administered via personal or telephone interview. Larger typeset should be used for self-administration, while an enlarged version of the rating scale on an index card will facilitate in-person interviews. Regardless of method of administration, each respondent should be queried concerning their understanding of instructions, and probed regarding difficulty answering specific items.

Instructions to Participants:
For each of the following, please indicate your level of confidence in doing the activity without losing your balance or becoming unsteady from choosing one of the percentage points on the scale form 0% to 100%. If you do not currently do the activity in question, try and imagine how confident you would be if you had to do the activity. If you normally use a walking aid to do the activity or hold onto someone, rate your confidence as it you were using these supports. If you have any questions about answering any of these items, please ask the administrator.

Instructions for Scoring:
The ABC is an 11-point scale and ratings should consist of whole numbers (0-100) for each item. **Total the ratings (possible range = 0 – 1600) and divide by 16 to get each subject's ABC score.** If a subject qualifies his/her response to items #2, #9, #11, #14 or #15 (different ratings for "up" vs. "down" or "onto" vs. "off"), solicit separate ratings and use the lowest confidence of the two (as this will limit the entire activity, for instance the likelihood of using the stairs.)

- 80% = high level of physical functioning
- 50-80% = moderate level of physical functioning
- < 50% = low level of physical functioning

Myers AM (1998)

- < 67% = older adults at risk for falling; predictive of future fall

LaJoie Y (2004)

1. Powell, LE & Myers AM. The Activities-specific Balance Confidence (ABC) Scale. *J Gerontol Med Sci* 1995; 50(1): M28-34
2. Myers AM, Fletcher PC, Myers AN, Sherk W. Discriminative and evaluative properties of the ABC Scale. J Gerontol A Biol Sci Med Sci. 1998;53:M287-M294.
3. Lajoie Y, Gallagher SP. Predicting falls within the elderly community: comparison of postural sway, reaction time, the Berg balance scale and ABC scale for comparing fallers and non-fallers. Arch Gerontol Geriatr. 2004;38:11-26.

The Activities-specific Balance Confidence (ABC) Scale

For each of the following activities, please indicate your level of self-confidence by choosing a corresponding number from the following rating scale:

0% 10 20 30 40 50 60 70 80 90 100%
no confidence completely confident

"How confident are you that you will not lose your balance or become unsteady when you…
…walk around the house? ____%
…walk up or down stairs? ____%
…bend over and pick up a slipper from the front of a closet floor ____%
…reach for a small can off a shelf at eye level? ____%
…stand on your tiptoes and reach for something above your head? ____%
…stand on a chair and reach for something? ____%
…sweep the floor? ____%
…walk outside the house to a car parked in the driveway? ____%
…get into or out of a car? ____%
…walk across a parking lot to the mall? ____%
…walk up or down a ramp? ____%
…walk in a crowded mall where people rapidly walk past you? ____%
…are bumped into by people as you walk through the mall?____%
… step onto or off an escalator while you are holding onto a railing? ____%
… step onto or off an escalator while holding onto parcels such that you cannot hold onto the railing? ____%
…walk outside on icy sidewalks? ____%