Dynamic Gait Index (DGI)

Free, available at http://www.physio-pedia.com/Dynamic_Gait_Index_-_Outcome_Measure

Pop	Time	Purpose	Measures	Scoring	Notes
Brain injury, geriatrics, multiple sclerosis, Parkinson's disease, stroke, vestibular disorders	15-30 mins	Assesses individual's ability to modify balance while walking in the presence of external demands for the purpose of assessing the likelihood of falls	Gait level surface Change in gait speed Gait with horizontal head turns Gait with vertical head turns Gait and pivot turn Step over obstacle Step around obstacles Steps	Each item is scored using a Likert scale from 0-3 (the higher the score the better skill performance – specific criteria for each # is listed for each skill – see form) Total possible score of 24 ≤ 19 = predictive of falls in older adults	This tool is administered in a standardized testing environment (e.g., in a rehab gym, the doctor's office, an outpatient clinic, hospital). Administering the DGI prior to ambulation in one's real life setting can assist the RT in identifying POSSIBLE balance challenges in a real life community setting. DGI findings from performance in a standardized testing environment will most likely not be consistent with actual performance in a real life community setting due to other contextual factors (e.g., anxiety, distraction). With that said however, the DGI can provide the therapist with a baseline from which to prepare. The RT might also use the DGI as a pre-post test to measure baseline data and outcomes of related interventions. For example, DGI scores could be measured before and after community mobility training. Although the scores might not reflect ACTUAL skills in a real life community setting, one would expect that DGI scores would still improve with community mobility training in real life environments.

<u>**Dynamic Gait Index**</u>

<u>**Description:**</u>	Developed to assess the likelihood of falling in older adults. Designed to test eight facets of gait.
<u>**Equipment needed:**</u>	Box (Shoebox), Cones (2), Stairs, 20' walkway, 15" wide
<u>**Completion:**</u>	
<u>**Time:**</u>	15 minutes
<u>**Scoring:**</u>	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
<u>**Interpretation:**</u>	≤ 19/24 = predictive of falls in the elderly

1. Gait level surface __1___

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 __2___

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 __2___

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 <u>15" path</u>, loses balance, stops, reaches for wall.

4. Gait with vertical head turns __1___

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 <u>15" path</u>, loses balance, stops, reaches for wall

5. Gait and pivot turn __2___

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 __0__

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 __1__

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 __0__

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: _9__ / 24

Narrative Summary of Findings

Here's an example of how you might document the above findings:

Pt is a falls risk as indicated by a Dynamic Gait Index (DGI) score of 9.