MEDBRIDGE

Dynamic Gait Index

Description
Developed to assess the likelihood of falling in older adults. Designed to test eight facets of gait.

Equipment needed
Shoebox, Cones (2), Stairs, 20 foot walkway, 15 inches wide

Completion Time
15 minutes

Scoring
A four-point ordinal scale, ranging from 0 to 3. "0" indicates the lowest level of function and "3" the highest level of function.

Total Possible Score: 24

Interpretation
< 19/24 = predictive of falls in the elderly

1. Gait level surface

Instructions: Walk at your normal speed from here to the next mark (20 feet).
Grading: Mark the lowest category that applies.

	Score	Level of Function	Description
☐	3	Normal	Walks 20 feet, no assistive devices, good speed, no evidence for imbalance, normal gait pattern.
☐	2	Mild Impairment	Walks 20 feet, uses assistive devices, slower speed, mild gait deviations.
☐	1	Moderate Impairment	Walks 20 feet, slow speed, abnormal gait pattern, evidence for imbalance.
☐	0	Severe Impairment	Cannot walk 20 feet without assistance, severe gait deviations or imbalance.

2. Change in gait speed

Instructions: Begin walking at your normal pace (for 5 feet). When I tell you "go," walk as fast as you can (for 5 feet). When I tell you "slow," walk as slowly as you can (for 5 feet).
Grading: Mark the lowest category that applies.

	Score	Level of Function	Description
☐	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 no 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.

	Score	Level of Function	Description
☐	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: 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.

	Score	Level of Function	Description
☐	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 inches 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.

	Score	Level of Function	Description
☐	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.

	Score	Level of Function	Description
☐	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 feet away), walk around the right side of it. When you come to the second cone (6 feet past first cone), walk around it to the left.
Grading: Mark the lowest category that applies.

	Score	Level of Function	Description
☐	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.

	Score	Level of Function	Description
☐	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