

Tandem gait (heel-to-toe)

Definition

- Walking in a straight line with the front foot placed such that its heel touches the toe of the standing foot

Purpose

- Exacerbates all gait problems (especially vestibular ones)
- Used to distinguish the subtypes of cerebellar disease
- Used by law enforcement to test for intoxication

Technique

1. Ask the patient to walk in a straight line with one foot immediately in front of the other (heel to toe), arms down by their side
2. Stay close enough to patient to catch them if they fall
3. Observe the width of the base, shift of the pelvis and flexion of the knee

Results

- Normal gait: smooth, continuous rhythm
- Ataxia: uncoordinated movement due to a muscle control problem that causes an inability to coordinate movements. It leads to a jerky, unsteady, to-and-fro motion of the middle of the body (trunk) and an unsteady gait (walking style)
 - Patients will spread their legs apart to widen the base of support, may stagger when they walk (severe cases), and falls toward one or both sides while performing heel-toe walk
 - Causes:
 - Lesions of the vermis (midline lesions of the cerebellum)
 - Unilateral lesion: sways/falls to one side (the side of the lesion)
 - Bilateral: may sway/fall to either side
 - Loss of position sense
 - Intoxication

References

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