

# Balance

see [Equilibrium](#) In biomechanics, balance is an ability to maintain the line of gravity (vertical line from centre of mass) of a body within the base of support with minimal postural sway.

Sway is the horizontal movement of the centre of gravity even when a person is standing still. A certain amount of sway is essential and inevitable due to small perturbations within the body (e.g., breathing, shifting body weight from one foot to the other or from forefoot to rearfoot) or from external triggers (e.g., visual distortions, floor translations). An increase in sway is not necessarily an indicator of dysfunctional balance so much as it is an indicator of decreased sensorimotor control.

Maintaining balance requires coordination of input from multiple sensory systems including the vestibular, somatosensory, and visual systems.

see [Postural balance](#)

see [Imbalance](#).

Evidence is emerging for a significant clinical and neuroanatomical relationship between balance and [anxiety](#). Research has suggested a potentially priming effect with anxiety symptoms predicting a worsening of balance function in patients with underlying [balance dysfunction](#).

[Idiopathic normal pressure hydrocephalus](#) (iNPH) is a progressive [neurodegenerative disease](#) in the [elderly](#) with enlarged [ventricles](#) and normal or slightly elevated cerebrospinal fluid pressure, clinically characterized by an insidious onset and gradual progression of impairments of [gait](#), [balance](#), [cognition](#), with [urinary incontinence](#) <sup>1)</sup>.

<sup>1)</sup>

Hakim S, Adams RD. The special clinical problem of symptomatic hydrocephalus with normal cerebrospinal fluid pressure. Observations on cerebrospinal fluid hydrodynamics. J Neurol Sci. 1965 Jul-Aug;2(4):307-27. PubMed PMID: 5889177.

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