

Postural Stability Assessment System

Brief Profile of Technology/Product

Postural stability is achieved by maintaining an upright body alignment against gravitational force and preserving the equilibrium of the centre of mass (CoM) in an individual's base of support. Successful postural control requires the contribution from a complex sensory system comprising visual, somatosensory, and vestibular modalities as well as motor control systems. Ground reaction forces are amongst the prominent parameters used for Gait assessment.



Features

- It gives an approximation of the projection of body's centre of mass on the ground.
- Compact module packaging makes it comfortable in wearing and does not interfere in natural movements.

Applications

- The foot pressure sensor is used for assessing balance stability of individuals.
- Postural Assessment System is safe to use as a training tool for sit-to-stand, stand-to-sit, joint movements for stance and gait analysis.
- It will bring significant improvement in postural sway.
- Better spasticity scores of ankle dorsiflexion and planar flexion.

Relevance

Stiffness, swiftness and damping are the gait variable parameters that are used to quantify and control the postural stability. The system helps in assessment of postural stability of elderly and physically disabled.

Status

Prototype has been developed and installed at two hospitals on pilot scale. Technology transferred to M/s Medicaid Systems, Chandigarh