ABSTRACT OF THE DISCLOSURE

The invention provides a method of monitoring the critical dynamics of the spine especially after surgeries such as discectomies and laminectomies etc. while the spine is still undergoing recuperation. The invention also provides monitoring of the posture of a person, and other injury-causing movements on the sagittal and axial anatomical planes. The apparatus is portable with quick-release attachments. The invention uses a couple of solid-state gyro-accelerometer sensors that are mounted parallel to the lumbar and thoracic sections of the spine. The sensors therefore have the capacity to determine via trigonometric calculation of gravitational forces, the lumbar and thoracic angles of the spine. The sensors such placed on particular segments of the spine, can calculate the kyphotic angles and Cobb Angle of the spine thus avoiding prolonged exposure to bad posture. All information provided by the apparatus is done through speech synthesizers on a microcontroller embedded technology.

Figure (5)