Biodex adds vibrotactile cueing to postural sway feedback

Vibrotactile feedback is especially suited for evaluation and treatment of vestibular disorders

www.biodex.com/vibrotactile
Vibration cueing adds sensory feedback
Providing real-time biofeedback during rehabilitation is essential for patients and clinicians. Once integrated with the Balance System™ SD or the portable BioSway™, the optional VibroTactile™ System offers an additional form of sensory feedback to help detect changes in postural sway. Using wireless technology, the tactile belt responds with a vibrating sensation when the patient sways outside the therapist-set parameters.

Especially suited for evaluation and treatment of vestibular disorders
Vibrotactile cueing allows patients to safely receive positional feedback with their eyes closed. Patients with vestibular challenges are overly dependent on visual and somatosensory systems. To bring a greater focus to the vestibular system during balance training, the visual sense needs to be eliminated.

Vestibular therapy includes balance training exercises which, when coupled with vibrotactile feedback as one of the interventions provided by physical therapists, has been shown to improve postural control.1

Finally, a means to provide balance feedback with eyes closed.

Applications
Vestibular therapies
Balance anxieties from TBI
Stroke
Peripheral neuropathies
Amputation

The principle behind the technology
Research and clinical experience demonstrate that vibrotactile cues that correct postural sway in one situation are retained and transferred to other types of situations. Vibrotactile cueing fosters adaptation to new, correct information.

The origin for this specific technology is from the military, to enhance spatial awareness for jet pilots, with sensors embedded into their flight suits. Since then, the technology has been adapted to balance rehabilitation with excellent results.

Specifications:

950-430 VibroTactile System includes: transmitter, two tactile belts (S/M and L/XL), each with wireless receiver and connection cables.

Optional
950-434 VibroTactile™ Belt Kit, XXL 48”-66” (122-168 cm)
Includes: Wireless receiver and connection cables.