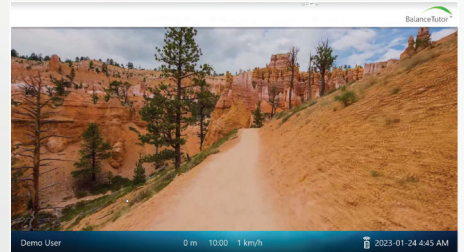
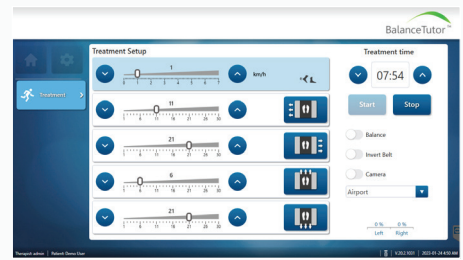




BalanceTutor™

Rehabilitation like never before





BalanceTutor

The BalanceTutor empowers therapists to simulate postural perturbations such as slips or trips, enabling targeted and effective rehabilitation. Its cutting-edge technology allows the platform to move in medial/lateral and forward/backward directions while the patient stands, walks, or runs. This flexibility permits therapists to customize postural control exercises to specific phases of gait, addressing a wide range of physical therapy needs.

Key Features

- **4D Perturbation Technology:** The BalanceTutor is the only rehabilitation system featuring an advanced patented treadmill capable of 4D perturbations.
- **Comprehensive Sensor Integration:** Equipped with multiple force and movement sensors for precise feedback and treatment.
- **Customized VR and Visual Environments:** Enhances patient engagement and rehabilitation effectiveness through tailored virtual reality and visual settings.

Q: What is postural perturbation?

A: A postural perturbation is a sudden change in conditions that displaces the body posture away from equilibrium.

Q: What is reactive postural control response?

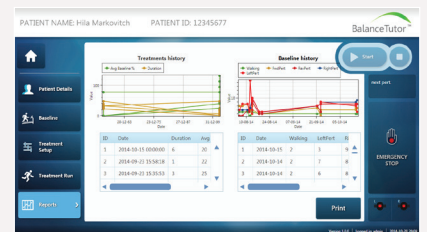
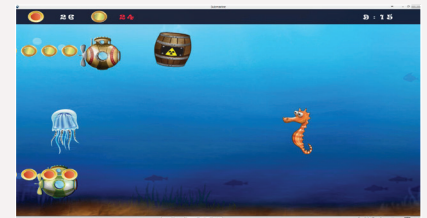
A: Reactive postural control response is an automatic "like reflex" response which is initiated by **unexpected** postural perturbation in order to maintain balance and can be improved through practice for example a compensatory step following a slip or a trip.

Clinical Applications

- ✓ Weight bearing encouragement
- ✓ Specific single and group muscle activation
- ✓ Multi task locomotor performance
- ✓ Spatiotemporal neuromuscular coordination
- ✓ Automatic postural adjustment ability
- ✓ Improvement of compensatory step
- ✓ Force control optimization
- ✓ Sensorimotor and vestibular system
- ✓ Sensation, muscle strength, joint stabilization and coordination

Unique Features

- ✓ Easy and fast set up
- ✓ Programming manual/automatic postural perturbation
- ✓ Vast range of rehabilitation protocols
- ✓ Measurement and recording of center of pressure (COP)
- ✓ Adjustable Handrails for support to accommodate all patients
- ✓ Motivational and customized rehabilitation and visual environments
- ✓ Objective evaluations and documentation of patient's progress
- ✓ m-CTSIB Modified Clinical Test for Sensory Integration of Balance including normative data
- ✓ Gait Analysis with spatiotemporal parameters including normative data



Q: What is missing in traditional physical rehabilitation?

A: Traditional physical rehabilitation is based mainly on proactive training (self-initiated actions). Clinical research has shown that in addition to proactive training, **reactive training must be targeted**. Traditional tools and methods simply can't target reactive response training due to major safety issues and a lack of sophisticated treatment customization.

Q: Why is the BalanceTutor leading a new era of physical rehabilitation?

A: The system's unique technology for the first time allows training reactive postural response while standing or walking at different gait phases. This is not treated in traditional practice. Together with proactive training the system allows for optimal rehabilitation outcome and recovery.



Vestibular Rehabilitation

Vertigo and dizziness caused by vestibular system disorders

Elderly

Falls prevention
Balance and strength training

Research

Neurological Rehabilitation

Stroke
Head injury
Spinal cord injury
Multiple sclerosis
Cerebral palsy
Parkinson's disease
Peripheral nerve injury

Orthopedic Rehabilitation

Joint surgery / fracture
Amputation
Prosthetic
Muscle weakness
Ligament sprain
Muscle / tendon strain

Sport Medicine

ACL/PCL rehabilitation
Ligament reconstruction
Muscle / tendon strain
Muscle strengthening
Automatic response training
Joint stability and muscle coordination