# Balance System™ SD

A simple, efficient and versatile balance testing and training tool.

## Balance Assessment & Conditioning

Athletes to Older Adults

The Balance System SD will improve balance, increase agility, and develop muscle tone, with the broadest range of treatment options.

www.biodex.com/balance



The Balance System SD includes enhanced features that make the already most popular balance system even better.

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### FEATURES:



- Static and Dynamic (SD) Offers twelve levels of platform control as well as static force setting.
- Balance Training Includes proprioception and stabilization exercise, range of motion and weight shift exercises.
- Objective Documentation Printed color reports prove need, track progress and document outcomes ideal for insurance reimbursement.
- NEW Automated G-code Calculations and Impairment Level Reports – Objective reporting documents impairment percent with associated modifier code, functional limitation G-code categories and patient status – important for Medicare reimbursement. Increases efficiency and productivity, improves documentation of rehab effectiveness, helps with audits and reduces claim denials.
- NEW Enhanced Sensory Integration Balance Testing Capabilities – Perform a modified version of a Balance Error Scoring System (BESS) test of postural stability, popular for concussion management. Modify existing or create custom protocols for both the CTSIB and BESS tests.
- Custom Reporting Allows entry of unique comments to test results and assignment of CPT codes.
- **NEW Normative Data** Healthy populations stored for test comparison of older adults for fall screening and student athletes for concussion management.



### **NEW** Clinical Guideline **Peripheral Neuropathy**

A Clinical Guideline for the Treatment of Patients with Peripheral Neuropathy using Biodex Balance System SD, BioStep, Gait Trainer and Unweighing System.

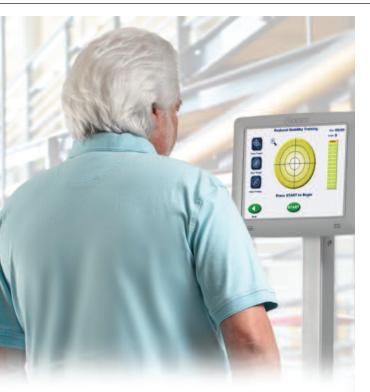
Download the Clinical Guideline www.biodex.com/guideline/pn-balance

- Audio Biofeedback For cueing successful target hits.
- Visual Biofeedback Prompts patients into proper postural and balance control.
- Large Display Features 12.1" touch-screen display, powered by a Windows CE operating system.
- Multipurpose Connectivity Allows connection to larger monitors and LCD projectors to enhance interaction for visually impaired patients.
- Adjustable Support Handles Lock in place for safety or swing away for an unobstructed, open environment for a variety of training activities.
- Locking Surface Ensures safe "on and off" patient movement.
- NEW Patient Data Collection Software Utility (complimentary download) – Facilitates download and transfer of patient data allowing for unlimited storage capacity, reporting or exporting as a .csv file and import into Excel to run statistical analysis for normative data generation.
- NEW CTSIB Utility Software (complimentary download) – allows you to store athlete baseline test results, compare to post-injury balance assessments and manage progress with documentation.
- Mobility Transport wheels allow easy relocation between clinic and community for fall screening programs and health fairs.
- Video and Audio Out Bolsters connectivity options to other devices.
- USB Compatibility Accommodates external keyboard, a mouse, printing devices for remote operation and USB memory devices for data transfer and software upgrades.
- NEW VibroTactile<sup>™</sup> System In addition to audio and visual biofeedback, vibrotactile cueing provides a third sense to postural sway feedback. Using wireless technology, the belt responds with a vibrating sensation when the patient sways outside the therapist-set parameters.

**Prove Need. Progress. Outcome** – All test results and training sessions can be stored and printed. Comparison to normative data helps communicate need, progress and outcome.

www.biodex.com/balance

## STATIC AND DYNAMIC BALANCE TESTING AND TRAINING



#### **The Biodex Balanced Approach**

- FALL RISK SCREENING AND CONDITIONING
- SENIOR REHAB
- NEUROREHABILITATION
- SPORTS MEDICINE/ORTHOPEDIC
- CONCUSSION MANAGEMENT
- WELLNESS
- VESTIBULAR DISORDERS
- G-CODE CALCULATION
- ACO RELATIONSHIPS

#### FIVE STANDARDIZED TESTING ENVIRONMENTS

Fall Risk Screening, Athletic Single-Leg Injury Screening, Dynamic or Static Limits of Stability, Postural Stability and Clinical Test of Sensory Integration of Balance (mCTSIB) environments are included.

#### STANDARDIZED FALL RISK SCREENING TEST PROTOCOL

Biodex Balance System can identify a potential problem in just two minutes. Compares balance test results to age-dependent normative data. Fall Risk Assessment Protocol is consistent with American Geriatrics Guidelines. ICD-9 Code V15.88 Personal History of Fall includes patients identified as "at risk of falling."

#### ATHLETE KNEE INJURY SCREENING TEST PROTOCOL

Consistent with leading sports medicine programs including Cincinnati Sports Medicine, Cincinnati Children's Hospital and University of Pittsburgh.

#### **CONCUSSION MANAGEMENT PROTOCOL**

Preseason baseline testing and post injury return-to-play management using the Clinical Test of Sensory Integration of Balance (mCTSIB).

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## Fall Risk Screening and Conditioning

The Balance System SD includes a comprehensive Fall Risk Screening & Conditioning Program and Protocol to help a clinician being a Fall Program. The Balance System SD is able to identify a potential problem in just two minutes by comparing balance test results to age-dependent normative data. The Program includes marketing support to assist with community outreach at senior centers and other events to build awareness and expand patient base. The Fall Risk Assessment Protocol is consistent with American Geriatrics Guidelines.



## Senior Rehab

Tackling the needs of the older adult requires an understanding of the complex physiology of this population segment. As part of the Balance & Mobility product series, the Balance System SD addresses age related diseases by aiding in increasing mobility, addressing fall risk, improving balance, developing muscle tone and increasing agility.

## Neurorehabilitation



The training exercises of the Balance System SD are geared to improve strength, range of motion, gait and balance for those patients suffering from neurological disorders associated with Parkinson's, Stroke or Peripheral



Neuropathy. In practice, the Balance System can capture, quantify and document a patient's relative tendency to overcompensate to one side or the other. This information can often determine a true course of treatment.

## Vestibular Disorders

The Balance System SD is an evaluation tool, as well as a rehabilitative device, ideal for patients experiencing vestibular issues. Balance retraining exercises are designed to steady a patient while walking or standing through improvements in coordination of muscle responses and organization of sensory information. Static and dynamic tests are administered to gauge a patient's balance – objective reporting and comparisons to normative data aid in the development of individual exercise plans.

The **NEW** VibroTactile System provides patients with vibrotactile biofeedback resulting in improved postural control – eliminating the need for subjective verbal and hands-on therapist cueing.

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#### MEETING MULTIPLE CLINICAL NEEDS WITH A SINGLE TOOL

## Wellness

The Balance System SD is simple to use with an intuitive touch-screen display. Wellness members require minimal supervision and can progress through the various levels at their own pace. Training exercise includes static and dynamic balance activities, weight shifting, increasing limits of stability, and improving reaction time. The system produces color reports to provide motivating feedback.

## Sports Medicine/Orthopedic



Help athletes perform better by demonstrating functional deficits. The Biodex Balance System documents weakness and challenges patients to improve. The various test modes evaluate the athlete in a static or dynamic environment, then generates objective documentation of the results. Reports include standard deviations of target performance, the percentage of time an athlete stays in a particular quadrant and then compares performance to normative data, built into the system. This allows the objective

measures of the athlete to be trained, and then easily reevaluated and assessed to quantify improvement.

## **Concussion Management**

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Biodex Balance Assessment for Concussion Management is used by high school, college, and professional sports teams to unravel the mystery of concussion and to bring together best practices combining cognitive testing and a graded symptoms checklist in combination with balance assessment. The Balance System SD is an objective Balance Assessment tool that provides a performance baseline against which post-injury performance can be compared aiding with return-to-play decisions. The CTSIB identifies and tracks disturbances in balances and the three associated sensory systems.

## PEER PERSPECTIVE

"The Biodex Balance System SD fits perfectly into a program of traditional techniques that I use in balance development classes, and in our senior fitness test. The technology is an attractive addition to our overall balance program."

> - Kimberly Morris, Fitness Specialist Sagewood Wellness Center Phoenix, AZ

www.biodex.com/balance/casestudies

## Help Secure ACO Relationships

Hospitals need to ensure that patients discharged from their care will be managed efficiently and effectively so as to minimize the potential for readmission. Facilities will be expected to demonstrate to hospitals that they are equipped and skilled to be a partner in an ACO and receive the referrals from the hospitals.

The Biodex Balance System offers technology, along with associated printed reports documenting need, progress and outcomes. This increases clinical efficiency, productivity, and helps reduce the rate of readmissions – making you an attractive partner to ACO's.

#### FREE CERTIFICATION

Purchase a Biodex Balance System SD or portable BioSway and receive a single enrollment to become a Certified Concussion Health Provider at no cost (\$350 value).

BIODEX



Ethernet connection accommodates wired and wireless printing.



**Safety Step Stool (optional)** – the non-slip surface assures stability and patient safety.





CTSIB Indexed Pad (included) – standardizes foot positioning for improved consistency and result comparisons.

**CTSIB** - The CTSIB test helps determine which sensory system (visual, somatosensory, or vestibular) the patient relies on to maintain balance.

#### SIX INTERACTIVE TRAINING MODES: STATIC AND DYNAMIC



▲ PO STURAL STABILITY TRAIN IN G – Emphasize specific movement patterns or strategies by placing markers anywhere on the screen. Score reflects how many times a target is hit.



▲ LIM ITS O F STABILITY TRAIN IN G - Challenges the patient's balance and helps identify functional limitations or weaknesses within a defined sway envelope. Progressively increase sway envelope over time.



▲ W EIG HT SHIFT TRAIN IN G – Patients are challenged to shift and control their center of gravity within two parallel lines, in the medial lateral, anterior posterior and transverse planes of movement. Changing the width of the lines controls the degree of difficulty. Score is kept to track progress.



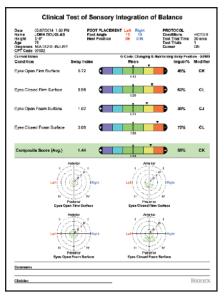
▲ MAZE CONTROLTRAINING - This defined movement pattern encourages proprioception and motor control. Various skill levels challenge a wide variety of patients.



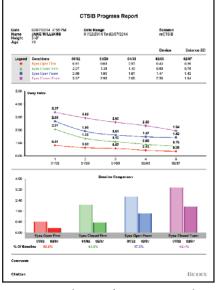
▲ RANDOM CONTROL TRAINING – Introduces a cognitive component to balance training. An undefined movement pattern where the patient is challenged to keep pace with a moving target. Target size and movement speed can be varied to match skill level. Ideal for motor control and vestibular training.



▲ PERCEN T W EIG HT-BEARIN G TRAIN IN G – Target zones change color when within % weight bearing targets. Helps train proper posture.



Utilizing the CTSIB capabilities clinicians can test patients and compare results to normative data and automatically calculate G-codes and impairment modifiers.



Progress reports document change over time and outcomes. All test results and training sessions are output on easy-to-read  $8.5" \ge 11"$  reports which can be placed into the patient's file.

#### What they are saying in the field...

#### "...from geriatric to professional athlete"

"I have used the Biodex Balance System for two years with a wide variety of patients ranging from

"It is a great resource to have in the clinic..." geriatrics to professional athletes. It is a great resource to have in the clinic when dealing with hip, knee, and ankle dysfunction patients, and is especially beneficial

with the athletic population.

Lance Kelly MPT, ATC, Hughston Rehabilitation, Hughston Clinic, P.C., Columbus, GA

## Parkinson's Disease Patients

"I've had good success with my Biodex Balance System. I've been using it with patients that have Parkinson's Disease and balance has improved in 60% of the cases.

I put patients on the Balance System prior to using any other intervention (including therapeutic exercises, transfer training and gait training.) The patients perform both LOS and dynamic training

during each session. Sessions are scheduled for the same time each visit to account for medication schedules. "I put patients on the Balance System prior to any other intervention..."

The objective results provided by the Balance System encourages patients by providing feedback they can easily understand. Even more important, these patients

are noticing significant improvement in functional balance at home. I would certainly recommend this system to other clinics whose clientele suffer from Parkinson's Disease."

> Trevor Meyerowitz, PT, Trevor Meyerowitz Physical Therapy, Boca Raton, FL

#### SPECIFICATIONS:

- Dimensions: Base: 30" w x 44" depth x 8" h (76 x 112 x 20 cm) Platform: 21.5" diameter (55 cm)
- Color Touch-Screen Display: Viewing Area:12.1" (30.7 cm) diagonal screen; 9.75" w x 7.25" h (24.8 x 18.4 cm) Angle: Adjustable from vertical back to approximately 45°
- Display Height: Adjustable from 53" to 68" h above platform (135 x 173 cm); 74" h (188 cm) maximum from floor.
- Stability Levels: 12 dynamic levels, plus locked for static measurements
- Platform Tilt: 20° from horizontal in all directions
- Support Rails: Adjustable from 25" to 36.5" above platform (64 to 93 cm). Rails can swing away from platform when not in use.
- Printer: HP DeskJet
- Printer Stand: 24" x 24" (61 x 61 cm)
- Patient Capacity: 400 lb (136 kg)
- Weight: 196 lb (89 kg)
- Power: 115 VAC, 50/60 Hz, 15 amp line or 230 VAC, 50/60 Hz, 15 amp line
- Power Rating: 350 watts
- Certification: ETL listed to UL 60601-1 and CAN/CSA
  C22.2 No.:601.1-M90. CE conformity to EN 60601-1,
  EMC compliance to EN 60601-1-2.
- Warranty: Two-years parts; one-year labor



950-440 Balance System SD, 12.1" Display, 115 VAC Printer, printer stand and CTSIB Indexed Pad.

#### Export models available.

Resources Included

- NEW elearning Tutorials for increased product utilization.
- Marketing Support for Fall Risk Screening & Conditioning Program.
- Marketing Support for Balance Assessment for Concussion Management.
- Marketing Support for Peripheral Neuropathy.

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950-430	VibroTactile <sup>™</sup> System
	Includes: Transmitter, two
	tactile belts (S/M and L/XL),
	each with wireless receiver
	and connection cables.
950-306	Step Stool,
	Balance System SD

ATTENTION Existing Balance System SD Customers: Display and Software Upgrades are available. Contact Biodex Customer Service for details.

## Balance Testing, Training, Documentation

OBJECTIVE DATA PROVES NEED, PROGRESS AND OUTCOME.

Visit www.biodex.com/balance for details.

