balanceback®

The Leader in Fall Prevention™

Accuracy. Precision. Clarity.
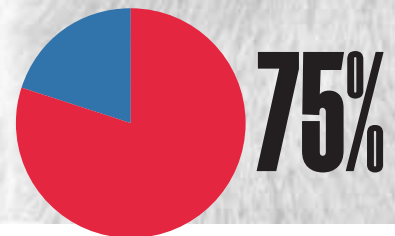
The World's Leading Diagnostic and Vestibular Rehab System™

Best Outcome for Every Patient Every Time

50%

70%

75%
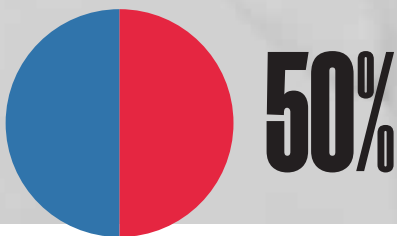
50% of Patients' seen in the primary care setting do not receive a diagnosis for their complaints of dizziness. (Squires, Burke)
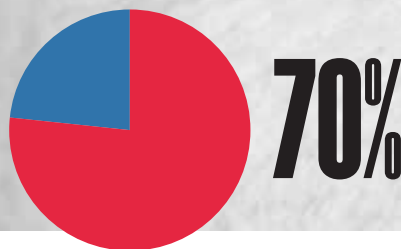
Yet, In 70% of cases patients receive a prescription for Meclizine/Antivert (Squires, Burke).

75% of the elderly describe their dizziness as unsteadiness, disequilibrium, loss of balance, lightheadedness (Tinetti, Williams, Gill)

Yet, Meclizine has NOT been demonstrated to be effective or appropriate treatment of chronic disequilibrium and imbalance or lighteadedness (PDR).

balanceback™ provides the solution to assist you in achieving unequalled outcomes with your patients. iVNG™ testing is the Gold Standard and a quantifiable diagnostic tool, which is necessary to differentiate between Peripheral Vertigo or CNS Vertigo, and assisting in identifying which side of vestibular system is abnormal in peripheral vertigo cases.

That's why clinicians and researchers world-wide rely on balanceback™ for scientifically validated equipment, its documented accuracy and reproducibility, and exceptional support. balanceback's patented technology is engineered, designed, and manufactured in the U.S.A.

Rely on balanceback™ to improve your outcomes.

iVNG™ - A Necessary Diagnostic Tool

80%

Eighty Percent of people aged 65 years and older have experienced dizziness

Most fractures among older adults are caused by falls

Over 90 million adult Americans have experienced a dizziness or balance problem (NIH)

The iVNG balanceback™ will guide you in obtaining an accurate evidenced based diagnosis to resolve dizziness in patients and to advance patient care.

BPPV (Benign Paroxysmal Positional Vertigo)

BPPV, the most common vestibular disorder, is the cause of approximately 50% of dizziness in older people.

50%
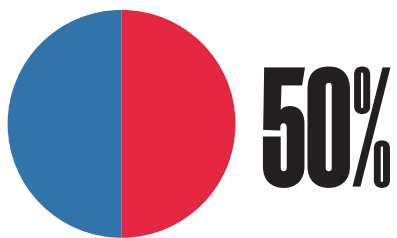
Overall, vertigo from a vestibular problem accounts for a third of all dizziness and vertigo symptoms reported to health care professionals

Falls, Leading Cause of Death

Among older adults, falls are the leading cause of both fatal and non-fatal injuries. Falls are recorded as a contributing factor in 40% of admissions to nursing homes

Rely on balanceback™ to improve your outcomes.

Falls-Leading Cause of Injury

Falls are the leading cause of injury and deaths among individuals who are over 65 years of age

Mortality Rates Increase with Falls

25% of elderly who sustain a hip fracture die within 1 year

Falls are the Leading Cause of Death (65 and older)

"Every year, more than 30% of U.S. adults 65 and older fall. Falls are the leading cause of death in this age group."
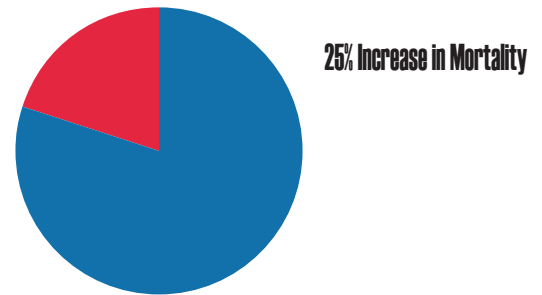   --according to American Bone Health https://americanbonehealth.org/fall-prevention/statistics-about-falls/

25% Increase in Mortality

Emergency Room Visits Due to Falls

Every 15 seconds, an older adult is treated in the emergency room for a fall

Every 29 minutes, an older adult dies

Every 29 minutes, an older adult dies following a fall (according to NCOA)

Hospital Admissions Hip Fractures, due to falls

Year	Admissions
1988	231,000
1999	332,000
2040	>500,000
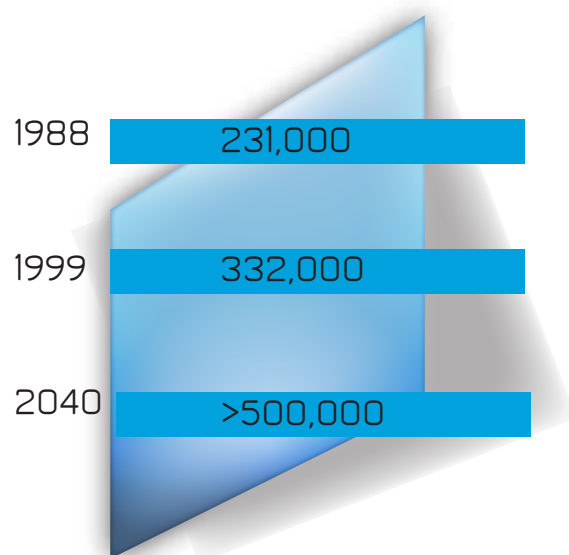
IVNG balanceback™ System

The iVNG balanceback™ system provides diagnostic solutions to accurately assess vestibular and balance disorders, differentiating from CNS or Vestibular, using data captured in real time using PC software. Data is recorded, can be replayed, with built in video. Reports include raw data, interpretive report, report writer and LogicTree/Flow Chart.

Hardware

The system uses a patented dual infra-red camera goggle system and proprietary software to record and analyze involunatery eye movements called Nystagmus to assist in diagnosing Dizziness, Vertigo, and Balance disorders to advance patient care and treatment.

Operation

Videonystagmography (VNG) is used to evaluate the balance system. Recordings of eye movements are obtained via lightweight goggles with dual infra-red built-in cameras, worn by the patient throughout the examination.

Built in Patient Voice Instruction

Patient Voice Commands, for convenience and ease of use, reducing errors and the need for re-testing.

Unparalled Nystagmus Detection

Through a proprietary method, balanceback™ software has the capability of providing unique data from the patient's pupil and eye movement by analyzing the direction and the position of the eye movements under certain conditions and positions. the iVNG system assists you in obtaining improved and accurate diagnosis to identify the problem so that the clinician can provide results oriented patient care established on evidenced based data.

Voice Commands

Optional Patient Commands and bluetooth available to give voice commands to computer, without having to use the keyboard and/or remote control.

Built In Video Professor

Always have instant access to Video Professor online.

Reporting

Reports are printed immediately and can be easily saved to PDF for easy integration with EMR software.

U.S. Patent No. D590,003

Stat™ Test - Under 10 Minutes

The iVNG balanceback™ system provides you with the option to run a Stat Test for a quick assessment in less than 10 Minutes. Stat Test includes:

Test	Seconds
Center Gaze VD	25 Sec.
Right Gaze VD	25 Sec.
Left Gaze VD	25 Sec.
Up Gaze VD	25 Sec.
Horizontal HFHS	65 Sec.
Hallpike Head Right	60 Sec.
Head Left	60 Sec.
Supine Positional VD	25 Sec.
Head Right Positional VD	25 Sec.
Head Left Positional VD	25 Sec.
Body Right Positional VD	25 Sec.
Body Left Positional VD	25 Sec.
Body Right Positional Headshake VD	45 Sec.
Body Left Positional Headshake VD	45 Sec.
Total Seconds: 500	
Total time: 8 minutes 20 seconds	

Express™ Test

Test Name	Length (in seconds)
Saccades	30
Smooth Pursuit .2	30
OPK Right 20	20
OPK Right 40	20
OPK Left 20	20
OPK Left 40	20
Center Gaze VD	25
Right Gaze VD	25
Left Gaze VD	25
Up Gaze VD	25
Center Gaze VE	25
Right Gaze VE	25
Left Gaze VE	25
Up Gaze VE	25
Horizontal/Vertical HFHS	65
Hallpike Head Right	60
Hallpike Head Left	60
Supine Positional VD	25
Head Right Positional VD	25
Head Left Positional VD	25
Body Right Positional VD	25
Body Left Positional VD	25
Body Right Positional Headshake VD	45
Body Left Positional Headshake VD	45
Supine Positional VE	25
Head Right Positional VE	25
Head Left Positional VE	25
Body Right Positional VE	25
Body Left Positional VE	25
Spontanenous Pre-Irrigation	15
Right Warm	120
Left Warm	120
Right Cool	120
Left Cool	120
Total Seconds 1360	
Total Time 22 minutes 40 seconds	

Custom Tests

balanceback™ gives you the flexibility to customize your own test modules.

AIB Test

Established by, AIB (American Institute of Balance) and considered the Gold Standard includes all of the above tets in the Express Modules, in addition to additional Smooth Pursuit Tests.

Flow Chart/Logic Tree

Improve Patient Outcomes with Accuracy.

Clear. Logical. Accurate.
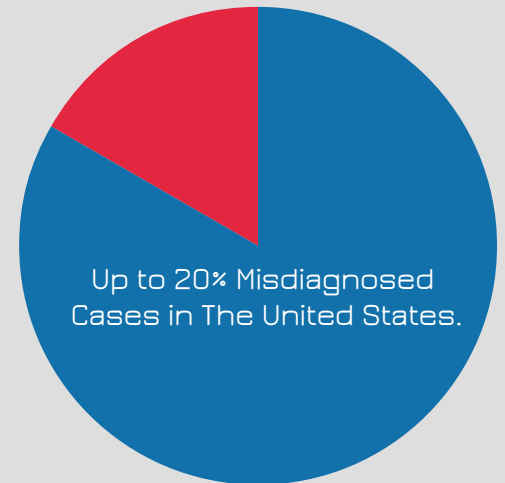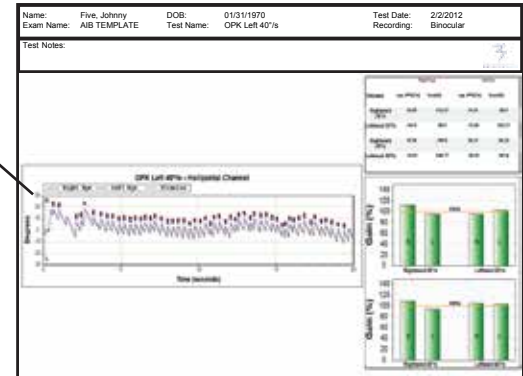
Report Writer Prints your Reports Immediately. Allows you to customize final interpretation. Automatic Nystagmus Detection, yet, gives you full control, with the ability to edit Nystagmus points.

Help your patient today. Use balanceback to avoid:

Up to 20% Misdiagnosed Cases in The United States.

Studies show patients consult multiple physicians before a proper diagnosis is made. Often, up to 5 years before finding a clinician who accurately diagnoses and treats.

Automatic Nystagmus Detection, reduces human error and eliminates guess work– improving accuracy and reducing time.

Automated Report Writer Gives you the option to customize your report

The balanceback™ Software is a Windows® based program used to register patients, manage hardware, configure alerts, monitor eye movements in real time and to display and record data.

iFind™ built into the software, allows you to immediately lock onto pupils, saving significant time and improving accuracy.

Order of tests may be changed before starting test or within the testing module.

Editing Nystagmus points is made easy, with the click of a button.

Video Playback built into the sotware for ease of use and convenience.

Hi-Res color reports may be printed or saved as PDF for easy integration into any EMR program.

Buttonology, provides clear, easy, intuitive commands for various tests and functions of the software.

The software also features easy-to-use reporting tools to create interpretive reports with a single mouse click.

Gaze

Headshake

Video Professor

Hallpike

Positionals

Smooth Pursuit

Optokinetic

Air Calorics

Automated Report Writer Gives you the option to customize your report

U.S. Patent No. D590,003

Fixation Lights

IR Diode

IR Diode

Infra-Red Cameras

Reflective Lenses

Convenient
Magnetic Cover
provides complete
darkness for
vision denied
tests.

Components

U.S. Patent No. D590,003

iVNG Dual Infra-Red Video Goggles.
Ultra Light-weight. Magnetic Cover
for Vision Denied Tests.

iVNG Laptop Computer or
Desktop Computer
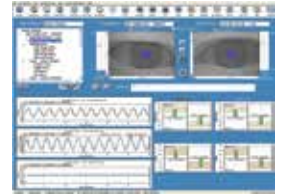
iVNG Proprietary Software

Control Box

40" LCD High Definition
TV or Projector Option

Remote Laser
Pointer

Printer

Isolation Transformer

Cart OR optional
Carrying Case

Accredited Training

6 CE Credits awarded upon passing coursework and completion of training.

Free Automatic System Updates

Automatically receive system updates, via remote access.

Automatic Storing of Video Recordings

Video recordings of eye detection/movement are recorded automatically during testing.

Free Marketing Support

Press Release, copy writing, seminar content to bring balance awareness to the community provided at no charge. Additional Marketing Mentoring available.

Clearances

Awarded Multiple 510K Clearances
ISO 13485

Warranty

1 Year Warranty on Software and components.
1 Year of balanceback Software upgrades.

The balanceback™ Network Provider Advantage

Accredited Training
- 6 CE Credits
- Clinical Support
- Clinical Training

Technical Support
- Remote Maintenance
- Software Upgrades
- Online Support

Practice Building
- Clinical Studies
- Referrals
- Marketing Support

Patent

U.S. Patent No. D590,003

Support

Clinical Support Available
Tech Support Available
Built in Tutor/Clinical Professor
Real Time Online Remote Tech Support
(M-F 9 am-5pm EST)

Perform In-Office Balance Studies.

The iVNG™ (intuitive Videonystamography) system has been utilized clinically for more than 10 years within the physician office, hospital and clinical trial settings. Validation of the iVNGTM system's accuracy and reproducibility has been documented through the following:

Published Clinical Studies

- Clinically validated in clinical studies detailing strong accuracy

- Improved accuracy with standard VNG and ENG equipment

- High Sensitivity and Specificity

Mult Center Clinical Trials

Widely utilized by renowned institutions, including:

The iVNG™ system has been and continues to be utilized in multi-center clinical trials for major institutions. The iVNG system was chosen for its documented accuracy and reproducibility.

Multiple FDA (510K) Clearances

Techincal Specifications

- The iVNG™ System meets or exceeds all technical specifications for standard VNG equipment.

- Measures 39 standardized tests and parameters for diagnosing dizziness and provides results in real-time.

Customers

- Utilized across the Northern United States by renowned Universities, Hospitals and Clinicians

- Used widely within the specialties of Neurology, Audiology, Internal Medicine, Pain Management, Occupational Medicine, Primary Care, Endocrinology and Otogaryntology.

- Most Customers recommend iVNG system to colleagues.

U.S. Patent No. D590003

International Presence- Partial List

United States
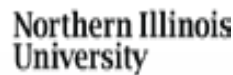
China

Argentina

Canada

El Salvador

Hospitals

Measuring eye movements can successfully determine whether the cause of severe, continuous, disabling dizziness is a stroke or something benign, according to results of a small study led by Johns Hopkins Medicine researchers.The diagnosis of stroke in patients with severe dizziness, vomiting, difficulty walking and intolerance to head motion is difficult, Newman-Toker says. He estimates there are 4 million emergency department visits annually in the United States for dizziness or vertigo, at least half a million of which involve patients at high risk for stroke. The most common causes are benign inner ear conditions, but many emergency room doctors, Newman- Toker says, find it nearly impossible to tell the difference between the benign conditions and something more serious, such as a stroke. So they often rely on brain imaging - usually a CT scan, an expensive and inaccurate technology for this particular diagnosis. (The Johns Hopkins University,) balanceback™ provides an accurate, non-invasive, easy to use solution with proven outcomes and is used in hospitals world-wide.

Neurologists

Treat Headaches and Migraines which often accompany Dizziness. Neurologists use balanceback™ to differentiate Central from Vestibular based dizziness.

Otolaryngology (ENT)

ENT physicians use balanceback™ to replace older antiquated ENG and VAT technology with advanced clinically proven, scientifically validated and evidenced based results to advance patient care.

Nursing Homes

Injuries from falls account for approximately 36 percent of potentially preventable visits to the hospital ER by nursing homes. Nursing home falls frequently cause a disabiity, functional decline, reduced independence, and reduced quality of life for an elderly person. Patients with fears of falls ofent experience feelings of helplessness, loss of function, depression, anxiety, and social isolation. (Centers for Disease Control [CDC]) balanceback™ provides evidenced based diagnostic and treatment solutions to prevent falls.

General Practitioners, Internal Medicine & Other Specialties

Many patients see thier primary doctor for dizziness as related to diabetes, migraines, meniere's disease, Benign paroxysmal positional vertigo (BPPV) and numerous other conditions. General Practicioners use balanceback™ to identify the root cause of dizziness and advance therapy using balanceback™ cognitive vestibular rehab system.

Audiologists

Audiologists treat most ear problems including hearling loss, which often accompanies Dizziness and Vertigo. The majority of balance disorders stem from the Vestibular system. balanceback™ differentiates Central from Vestibular based dizziness.

Military & VA Centers

Military and VA centers choose balanceback for it's accuracy, ease of use, and dependebailty- including Walter Reed, Elgin Air Force Base, VA Medical Center, NY and numerous others across the U.S.A.

Specifications

iVNG Goggles & Software

Video Goggles:	Binocular & Dual Modes: see through or vision denied.
Weight:	Weight of video goggles (with built-in dual infra-red micro-cameras) less than 0.35KG (+/-5%) and adjustable straps to fit a wide variety of head sizes, face shapes and eye spacing--including young children and elderly.
Nystagmus Detection:	Automatically identifies nystagmus, including rightward, leftward, upward and downward beating for the most accurate results.
Tracking Method:	Automatically locks onto pupil and tracks all movements using ExacTrak™ Technology.
Movement Detection:	Movement detection as small as 0.4o
Double Insallation:	Goggles are double insulated electrically for patient safety.
AudioCue™:	Autodmated Auditory Tone for headshake tests.
Fixation Lights:	Software controlled fixation lights installed inside goggle.
Fixation Index:	Automatic calculation of optical fixation index included.
4 Chanel System:	Records & analyzes the horizontal & vertical movement of both eyes independently or simultaneously.
Magnetic Cover:	Magnetic cover on goggles create a completely dark environment for convenient testing of vision denied tests. Easy to place & remove for vision enabled and vision denied tests.
Goggle Adjustments:	None required. No locks or knobs. Automated via Software for convenience of patient and technician. Software controlled video eye tracking for optimal eye image position, focusing and tracking.
Tracking Technology:	Superior tracking technology with the ability to track the most difficult cases – including ptosis (droopy eylids).
Micro-Camera:	Micro cameras are inside and top-mounted to for protection against wear and tear and to ensure patient comfort and safety during positional testing and ear irrigation (air, water, or ice).

Specifications

iVNG Goggles & Software

Automatic Nystagmus & SPV Calculation: Automatically calculates SPV, provides significant amount of labor cost savings. You may also edit or mark SPV calculations and nystagmus points

Digital Playback: All-digital Recording and Playback - built-in instant video playback of entire test sequence.

Spatial Resolution: Spatial resolution of imaging better than or equal to 0.4 degree.

Sampling Rate: Sampling rate of imaging: 60 Hz

Remote: Wireless hand-held remote control for operating the software from a distance.

Stimuli Projection: 40" Screen TV or Projector Option

ExacTrakTM: Automated setup for quick, easy and accurate set-up. Advanced proprietary software provides exact eye coordinates throughout testing.

iVNG Professor: Immediate access to built-in-professor/tutor to provide guidance if needed.

Customization: Ability to create your very own custom VNG test.

Express & Stat Exam: Allows for quick 5 & 10 minute exam.

Exam Templates: Pre-Loaded with AIB Exam Templates. Ability to Create your very own templates. Over 39 exams available. Plus, customize/change order of exams.

Operating System: Windows Professional

Data: Normative data included for test outcomes

Protocols & Test Data: All user-defined testing protocols and parameters

iVNG Goggles & Software

Features of the Optical Stimulus:	Remote Control access to software and stimulus controls. or optional blue-tooth command, or computer control to access software and stimulus commands including pursuit, saccade, gaze, OKN, etc. Computer control.
Reports:	Automated Reports, includes Report Writer, allowing customization of reports (font size, color, text/copy, etc.). Medical History Logs - creates and stores complete patient medical log and testing history in a HIPAA compliant environment. Reports printed in your choice of color or black and white. Color Graphs and Charts Included in Reports. Normative and Abnormal Data Provided. Ability to save to PDF or XML file for easy integration into EMR software

Electrical Requirements

110V outlet

Accessories

All essential cables, remote control and accessories (cart or TV stand are optional) Operating Manual with Installation Diagram

Specifications

Desktop Option

Processor:	8th Generation Intel® Core™ i3-8100 (4-Core, 6MB Cache, 3.6GHz, 65W
Operating System:	Windows 10 Pro 64bit
Chipset Intel:	Microsoft® Windows® Professional
Memory:	4GB, 1X4GB, DDR4 non-ECC Memory
Hard Drive:	2.5 500GB 7200rpm SATA Hard Disk Drive
Graphics:	Intel® Integrated Graphics
CD/DVD Rom:	8x DVD+/-RW 9.5mm Optical Disk Drive
Wireless:	Intel® Wireless-AC 9560, Dual-band 2x2 802.11ac Wi-Fi with MU-MIMO +Bluetooth 5 with Internal Ante
Driver:	Intel Wireless 9560 2x2 vPro Driver
Chassis:	OptiPlex XE3 Tower with 360W up to 90% efficient Power Supply (80Plus Gold)
Keyboard:	KB216 Wired Keyboard English
Mouse:	MS116 Wired Mouse

Specifications

Laptop Option

Operating System:	Windows 10 Pro 64bit
Chipset Intel:	10th Generation Intel® Core™ i5-10210U (4 Core, 6M cache, base 1.6GHz, up to 4.2GHz
Memory:	4GB, 1x4GB, DDR4 Non-ECC
Hard Drive:	2.5" 500GB 7200RPM SATA Hard Drive
Keyboard:	Dual Pointing Backlit US English Keyboard with 10 Key Numeric Keypad
Wireless:	Qualcomm® QCA61x4A 802.11ac Dual Band (2x2) Wireless Adapter + Bluetooth 5.0
Primary Battery:	3 Cell 51Whr ExpressCharge™ Capable Battery
EPEAT:	EPEAT Registered (Gold) (EPEAT-registered products meet strict environmental criteria that address the full product lifecycle, from energy conservation and toxic materials to product longevity and end-of-life management. EPEAT-registered products offer a reduced environmental impact across their lifecycles.

Mobile Medical Cart:

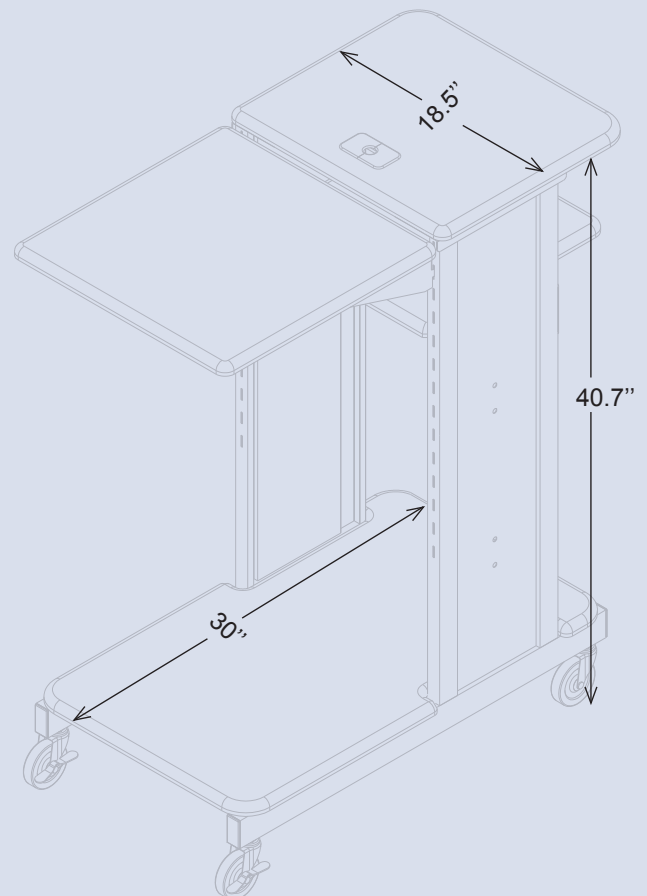|	
Shelves:	Four Thermalfused melamine shelves
Adjustable:	Laptop shelf is height adjustable
Frame:	Black powder-coated steel frame
Compliance:	TAA compliant
Depth:	30 in.
Height:	40.7 in
Weight:	52.9 lbs.
Width:	18.5 in

Join balanceback™ and be part of the solution

Exceptional Technology
Extraordinary Care

balanceback™ is the solution for anyone suffering from debilitating balance disorders.

Benefits of non-invasive balance testing have been clearly demonstrated.

Outcome studies have shown a dramatic reduction in clinical errors and the ability to advance patient care when balanceback™ is utilized.

Our company wants everyone to have access to these benefits. For that reason we developed a cost efective model so that you can have access to the best tools in the industry.

1-877-63-DIZZY (1-877-633- 4999)