# Balance Assessment & Rehabilitation kore balance 5.0







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The Korebalance® Premiere and Korebalance® are designed for use by medical centers and clinics, medical and PT offices, assisted living facilities, recreation centers, health and fitness clubs, universities and professional sport teams. The Korebalance® System uses the latest in virtual and interactive technology, offering innovative high-tech balance assessment and training. Backed by over two decades of medical experience, Korebalance® will provide you and your patients with the best possible documented neurosensory assessment and training.

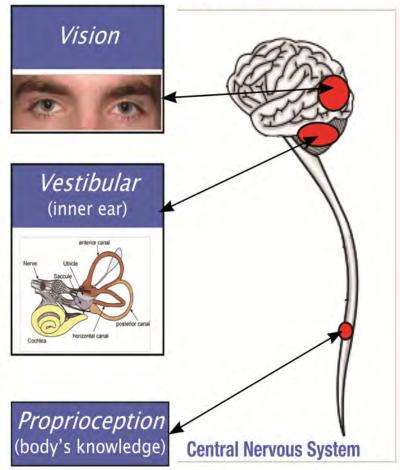
A trusted name in orthopedic and neurosensory rehabilitation.



kore balance

# Peripheral System

### What controls your balance?



### How It Works:

These three systems (vision, vestibular, proprioception) are required to ensure proper balance. Each sends a signal through the central nervous system, which the brain interprets. The brain must then send the proper signal to the muscles causing contraction; Korebalance® is the world's first balance training system incorporating VSR training together with cognitive interaction. Korebalance® exercises visual, vestibular (inner ear) and proprioception (knowing where the body is in space) to find or create new pathways in the brain, improving balance. Korebalance® is an essential component of any rehabilitation program. It delivers a higher quality of therapy by allowing healthcare professionals to customize programming and gradually adjust difficulty levels and tasks over time.

# Korebalance® Premiere and Korebalance® will assist you in achieving the following benefits:

- Using the body's balance mechanism to send stimuli through the central nervous system (CNS) to the skeletal muscles
- Re-mapping and retraining neuropathways
- Return of vestibular functionality for mild traumatic brain injuries (mTBI)
- Improving the body's ability to respond to an unstable environment
- Increasing confidence for seniors to react and recover from impending falls
- Improving agility, reaction time & motor control

# Korebalance® Products are designed to aid in the following balance disorders:

Post Orthopedic Surgery
Post Acoustic Neuroma
Resection
Meniere's disease
Vertiginous Migraines
Vestibular Neuronitis
Presbystasis
Closed Head Injuries
Multiple Sclerosis
Ataxia
Parkinson's Disease
Neuronitis
Stroke
Peripheral Neuropathy



The Korebalance® software allows practitioners to objectively assess balance. Our products feature patented variable stability technology. Training programs stimulate the brain and nervous system to improve balance, stability, coordination and posture. Interactive 3D games make training programs fun and captivating, increasing positive feedback and compliance.

Korebalance® provides an efficacious high tech solution for a variety of medical challenges. This modality captures and retrains balance performance with reproducible settings and engaging software.

Applications include fall reduction screening and rehabilitation, orthopedic rehabilitation, treating of peripheral neuropathies, treatment and assessment of mTBI and cognition, and identification of symptom magnification.

These applications span physical and occupational therapy, long term care and skilled nursing, athletic training, audiology, industrial medicine and neurology.

The Korebalance® KB22 Premiere, KB19 Professional, KB19 Standard and Kompact and Mobile feature optional cognition baseline and training module. The testing and training session can include both balance and cognition, cognition only, or balance only. Test results can be stored and compared to assess mental decline and mTBI improvement or regression.





mCTSIB and LOS tests with standardized variable control. (Available as an option on all computerized Korebalance® products).

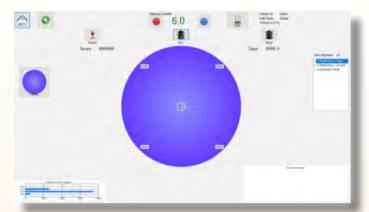




### Simplified standardized test format



**Static Test** requires the patient to stand steady & balance on the platform, keeping the crosshairs of the cursor in the center of the test pattern. The Score indicates the deviation of user's center of gravity from the center of the pattern.



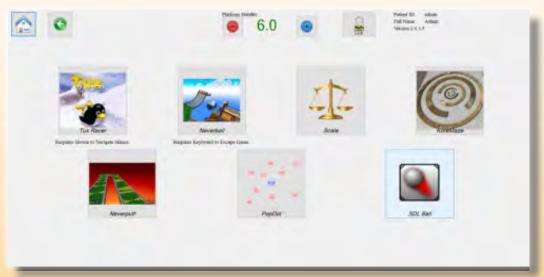
Detailed Results Screen: Touch the result that the user would like- see the detailed information and graphic display. It can be easily navigated and printed out in color.



**Dynamic Test** offers a moving cursor that the user "follows" utilizing hip and ankle strategies.



Optional Interactive Games: Increase user interaction and compliance; make training process fun and captivating. Numerous game variations.



- **➣ FUN, INTERACTIVE 3-D TRAINING PROGRAMS AND GAMES**
- **WILLIMITED DATA STORAGE AND REPORTS**
- **LEADING EDGE TOUCHSCREEN INTERFACE WITH A CHOICE OF SIZES**
- COORDINATED FUNCTIONAL USE OF ALL THREE PERIPHERAL SYSTEMS (Vestibular, Vision and Proprioception)
- VARIABLE STABILITY SETTINGS The pneumatic pressure system has 16 stability settings. Settings can be adjusted from very stable for the senior population to extremely challenging for professional athletes, and everyone in between.

### Korebalance® UFOV assessment and training module

The Korebalance Useful Field of View suite adds additional versatility and assessment capabilities to the balance and cognitive platform. Although originally designed as a test to determine driving proficiency and risks, the interactive progressive visual and cognitive acuity testing and training sessions have shown additional benefits as well.



1. Processing Speed



2. Divided Attention



3. Selective Attention

The Korebalance® UFOV assessment is a computer-based visual test containing three subtests.

- 1. Processing Speed: Determines a person's threshold for discriminating stimuli presented in central vision.
- 2. Divided Attention: Same as Subtest 1 but with the addition of a concurrent peripheral target location task.
- 3. Selective Attention: Same as Subtest 2 but with the addition of distracters.

The threshold scores are combined to produce an overall performance score. Performance on the UFOV assessment is correlated with a number of real-world functions including driving and walking.

Here are some examples:

- •Several studies have shown that a reduction in UFOV (Useful field of view) is correlated with an increased risk of an automobile accident with poor performers being about twice as likely to have an automobile crash than good performers.
- •Drivers with poor UFOV performance take longer to cross intersections and initiate crossing later.
- •The UFOV assessment is one of the best visual or cognitive predictors of crash rates surpassing the visual acuity tests (used at most Department of Motor Vehicle test sites).
- •Poor UFOV performers have more collisions during obstacle navigation while walking.
- •People with poor UFOV performance have higher rates of injurious falls.

### Korebalance antimicrobial treatment

All Korebalance medical device frames and touch points are treated with Koreclean EPA recognized covalently bonded antimicrobial prior to leaving our factory in Independence, Virginia. This treatment is non leaching and provides a long lasting invisible barrier to a myriad of bacteria and viruses. In addition, the Korebalance 22" Premiere features medical grade, two year warranted antimicrobial displays.



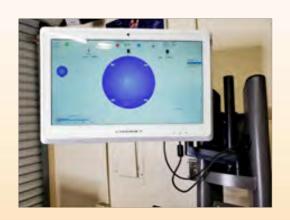
### Korebalance forearm heart rate monitoring

The optional forearm sensor heart rate monitor is much more accurate than touch sensors and provides real time heart rate display and max heart rate reporting in the patient file. Especially useful to determine metabolic demand of the various tests and gauge improvement or regression of cardiovascular health. The forearm attachment is better tolerated by patients, is easier to keep clean, and doesn't require the partial disrobing associated with chest sensors.



### Korebalance adjustable display mount

All clinical large frame Korebalance devices now feature a multi positional horizontal and vertical adjustable computer mount, accommodating a wide variety of patient statures, including pediatric. This new design facilitates the numerous cognitive touch screen applications now included in the Korebalance software suite



### Korebalance integrated surge protection

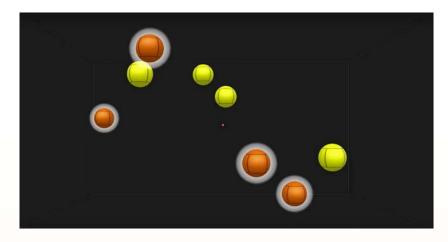
The Korebalance 22" Premiere modality now includes as standard an integrated surge protector, eliminates the need for external protectors and ensuring a smooth electric feed and protection of sensitive componentry.



### Korebalance® 5.0

- 1) Now with 20 levels of stability, up from 15, including level 20, the "stable" setting for mount and dismount and MCTSIB protocols making testing and training easier and catering to individual's abilities.
- 2) More powerful inflation motor provides quiet, faster inflation and deflation- saving clinician's time.
- 3) NEW for 2022 is the addition of an optional Neurotracker® software suite!





The ideal multi-tasking small footprint modality.

When used consistently for just 6-minutes a session

NeuroTrackerX heightens human performance, increases mental awareness and resilience in the face of adversity. The program hones in on the brain's core functions and trains them much like any other muscle in your body.



**Executive Function** - Focuses in on your functionality in organizing, planning, and prioritizing.



Peripheral Vision - Sense motion by being able to see objects at wide angles without turning your head.

Visual Info, Processing - Process and analyze accurately what is being seen and storing it in visual memory for later use.

Working Memory - Improve performance on reasoning tasks and reading comprehension, as well as functioning through the day.

The Korebalance with Neurotracker can be used in concert or independently, depending on abilities of the client and outcomes desired by the clinician. Combining the Korebalance progressive core stabilization and balance challenges with the Neurotracker software program provides a safe, state of the art, proven small footprint multitasking modality.

### Korebalance® = Exceptional Hardware

Windows operating system for increased reliability and userfriendly interface

USB ports for installing software upgrades

Powerful computer/ touchscreen combination with capacity to securely store patient files.

Mount/dismount feature provides a stable ingress and egress surface

Platform with 360° horizontal and 20° vertical movement tracking.



Choice of large surface acoustic wave digital flat panel LCD touchscreens with integrated quality stereo speakers. Medical grade touchscreen/computer available with Korebalance® Premiere 22

2" Hardened steel safety hand rails (fully adjustable on the KB22 Premiere and KB19 Professional)

6 Exercise band attachment points to enhance training

Large dynamic platform with padded neoprene cushion for comfort and safety.



Patient safety support belt, enabling practitioners to safely test and train patients.

"For many years, I have used Korebalance® machines in my offices for successful treatment of my patients. I have found it particularly helpful to incorporate these proprioceptive training protocols in treating patients with various balance anomalies. This has improved patients' static and dynamic balance. This training utilizes and improves both ankle and hip strategies effectively. By using guidelines of adjustable pressure under the unstable platform in relation to the patient's height, we have found an improvement in balance with pre vs. post rehabilitation tests for patients with both peripheral and central vestibular deficits, originating from various medical diagnoses. The machines have become an integral part of the balance treatment protocols we've instituted for our patients, and our outcomes certainly are improved by their use. I believe the machines are successful in diminishing fall risk in my patients."

Jim Buskirk PT, SCS
President/Owner
Balance Centers of America / Peak Therapeutics

### kore balance **premiere**

### kore balance

### **Computer Specifications**

### Model#: KB22

- 22" Medical Grade, 16:9 wide screen
- Windows 10 OS
- 5 wire resistive touch, PCAP Multi Tourch display.
- Resolution: 1920x1080
- Processor: Intel B840 1.9GHz i5 CPU
- Memory: 8GB
- WiFi enabled
- 128 GB Solid State Drive Improved load times and durability
- Video: Intel® HD Graphics 520 Media Accelerator 3000HD includes built-in support for full 1080p HD video playback
- Audio: Realtek High Definition Audio enables premium Dolby Digital 5.1 surround sound. Two built-in 3.0 watt stereo speakers.
- I/O: 1 x RS232, 2 x USB 2.0 Ports, 4 x USB 3.0 ports, 1 x HDMI In, 1 x HDMI OUT 1 x 4 Pin DIN power Jack. Line-out and Microphone Jack. 2 Channel Speakers.
- Safety & Certifications: EN60601-1 & UL60601-1 Medical Electrical Equipment Certification, FCC Class B, CE, RoHs2-WEEE, Energy Star 5.0
- Front bezel is completely sealed with a rating of IP65, and IPX1. Safe to disinfect by spraying directly on the screen.
- Screen Antimicrobially Treated

### Model#: KB19 Professional and KB19 Standard

- 19" 4:3, 5 wire resistive touch display, IP65 Sealed Front Bezel
- Windows 10 OS
- Resolution: 1600 x 1200
- Processor: Intel E5500 2.8Ghz Processor
- Memory: 2GB
- WiFi enabled
- Hard Drive: 500GB HD
- Video: Intel HD Graphics 520
- Video: The Intel® integrated H61 Chipset, with Intel® HD Graphics, maximum display resolution of 2560 x 1600
- Audio: Realtek High Definition Audio enables premium Dolby Digital 5.1 surround sound. Two built-in 2.5 watt stereo speakers with three audio jacks for Audio Out, Line-in, and Microphone
- I/O: 2 x USB 3.0 Ports, 4 x USB 2.0 Ports, 1 x RS-232 Serial Port, 1 x DVI-I.
- Safety & Certifications: FCC Class B, CE, UL60950, Energy Star 5.0, RoHS 2, WEEE





# kore balance premiere

## Machine Specs for Model#'s: KB22 Premiere, KB19 Professional and Standard

- Footprint: 44" x 58" (112 cm x 148 cm)
- Height: 80" (203 cm) fully extended
- Platform has 360° horizontal and 20° vertical range of movement
- Individually adjustable safety rails, catering to user's physical ability and height (available on KB22 Premiere and KB19 Professional).
- Fixed safety rails on model KB19 Standard
- 6 Exercise band attachment points
- Large, stable stepping platform with low stepup height for ease of access and safe mount and dismount.
- Power: 100-240 VAC; 50/60 Hz; 500 Watt includes surge protector in frame
- Machine weight: 315 lbs. (143 kg)
- Patient weight capacity: 500 lbs. (227 kg)
- Available in white frame
- Warranty: frame/15 years
   wear items/1 year
   electronics/1 year
   22" medical grade computer/2 years
   19" computer/1 year
- Made in the USA



"Pushing forward the idea of rehabilitation and fall prevention, if you have an awareness of your balance (or proprioception) and you train to keep it at its highest peak, like we do with flexibility, strength and endurance, we're going to see a reduction in injuries. I think the Korebalance® is a wonderful product. Balance equipment utilizing the unstable platform, such as the Korebalance® machine, really is one of the greatest inventions of the 21st century... We found that by using the unstable platform, we are able to diagnose where [people] are weak and retrain those fibers, and to re-teach the body reflexes necessary for proper balance. The equipment is an invaluable tool for aiding proprioception - the body's ability to know where our extremities are and to keep us balanced. And it allows us to effectively get a person back up to speed faster, ready to go back to full duty."

Captain Joseph Moore, US Navy, M.D., Medical Director, Miramar Sports Medicine And Reconditioning Team (SMART) Center, Former Commanding Officer of the Medical Treatment Facility aboard the Military Sealift Command (MSC) hospital ship USNS Mercy (T-AH 19).





### **Features**

- The FDA listed KoreSway<sup>™</sup> Kompact incorporates the patented Korebalance® software suites into a compact and affordable package. Utilizing proven force transducers and rapid sampling rates, the KoreSway<sup>™</sup> captures even minute patient center of gravity movements. Includes a portable safety rail system with integrated wheels that can fit through standard size doors.
- KoreSway<sup>™</sup> Kompact includes: force platform, computer stand, 19 or 22 inch touch screen computer, wireless USB keyboard, and one perturbed surface foam mat.
- Proprietary software and integrated touch screen computer provide a variety of testing and engaging training and gaming options.
- Includes static and dynamic balance assessment, mCTSIB and Limits of Stability testing and training
- Optional Cognition and Parkinson's Suite, Useful Field of View Testing and Training, and multiple game package
- Objective documentation printable color reports to track progress and document outcomes.



### KoreSway™ Kompact Specs

- 19" or 22" touch display.
- Platform footprint: 23" diameter (58.4 cm)
- Weight: 112 lbs. (51 kg)
- Patient weight capacity: 330 lbs (150 kg)
- Warranty: 5 year frame, 1 year components & electronics
- Made in the USA
- FDA REG# 3001541016





The KoreSway™ Mobile is designed for use by medical centers and clinics, medical and PT offices, assisted living facilities, recreation centers, health and fitness clubs, universities and professional sport teams.

### **Features**

- KoreSway<sup>™</sup> Mobile includes: force plate platform and carry bag, touch screen laptop computer, and one perturbed surface foam mat.
- 2.75" Platform Step Up Height
- Proprietary balance software provides balance and vestibular assessment and training programs for improving balance, stability, coordination and posture.
- Includes Static and dynamic balance assessment, mCTSIB and Limits of Stability Testing, along with two games Neverputt (golf) and Neverball game (3D)
- Optional Cognition and Parkinson's Suite, Useful Field of View Suite, and Multiple Game Package
- Objective documentation printable color reports to track progress and document outcomes
- Patient data storage store over one million reports





The KoreSway™ Mobile is shown here with included laptop stand and carrying bag

### **Mobile Specs**

- Platform footprint: 23" diameter (58 cm)
- Platform weight: 31 lbs (14 kg)
- Patient weight capacity: 330 lbs (150kg)
- Laptop computer included
- Warranty: 1 year
- Made in the USA
- FDA REG# 3001541016



### **Features**

- Useful Field of View Testing and Training Includes three sub-tests, and a training suite
- Cognitive Baseline Testing and Training: Target Tap, Arithmetic, Alphabet Target Sequencing, Memory Card Concentration, Image, Shape and Color Target Recognition
- Cognitive Training provides an adjustable target grid - between 9 to 100 targets, with 30 -300 second time options
- Parkinson's Disease Questionnaire-8 for convenient use in clinical settings
- Downloadable to any Windows 10 Operating System.
- Pay per License Use or a one time use fee
- Functions with a touch screen or mouse!

Target Tap - select as many targets as possible within the pre-selected time frame

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The KoreCognitive Software as a Service provides the Korebalance® cognitive testing and training suite for clinicians and their patients.

Useful Field of View
Cognitive Baseline
Parkinson's Disease Questionnaire 8
3 Cognitive Games

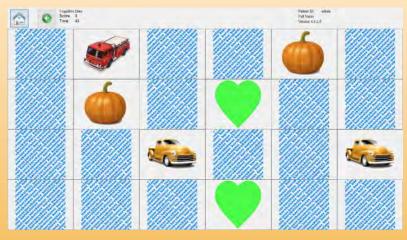
**UFOV: Split Vision Sub Test - Identify Targets** 



### **PDQ-8 Answer Review**

	Never	Occasionally	Sometimes	Often	Always Or Cannot Tell
Had difficulty getting around in public?					
2. Had difficulty dressing yourself?					
3. Felt Depressed?					
4. Had problems with your close personal relationships?					
5. Had problems with your concentration, e.g. when reading or watching TV?					
6. Felt unable to communicate with people property?					
7. Had painful muscle cramps or spasms?					
8. Felt embarrassed in public due to having Parkinson's disease?					

### **Memory Card Concentration - Match Images**





The Korebalance® Concussion Management Program works in conjuction with the Korebalance® kompact and cognition software package.

This catalog contains an introduction to the Korebalance® Concussion Management Program. For more information on our concussion management program, please contact us.

### <u>Korebalance® Concussion Management</u> Program

The comprehensive program that combines baseline assessment, proven strengthening regimen, and post injury assessment, including both cerebrum (cognitive) and cerebellum (automatic) function.

**<u>Document</u>**- Individual's pre-season balance and cognition

<u>Protect</u>- Strengthen neck musculature with Nautilus® Neck Protocol

**Assess**- Post concussive event

Rehabilitate - Using strength and balance training

**<u>Return</u>**- Use objective test information to determine return to action

"Post concussion injures in the athlete/ client often cause vestibular disorders - some say up to 90%. Vestibular disorders in the assessment and treatment of post concussed patients/ athletes is often missed with the general screens for balance. More sensitive testing is needed. At Werner Institute, KOREBALANCE equipment is used daily to initially assess the vestibular and balance systems and to allow us to progressively challenge the patient/ athlete. We are believers in this technology and endorse its use."

Brian Werner, PT, MPT
President
Werner Institute for Balance and Dizziness

Nautilus ONE®

Model#: S6FWN

Four Way Neck Machine
NAUTILUS® NECK
STRENGTHENING
PROTOCOL

- Expert-endorsed neck strengthening protocol for reduction of concussion risk, included in Korebalance® Concussion Management Program.
- Used in conjunction with Korebalance®
   balance assessment and rehabilitation computerized equipment.



Renowned author, strength consultant and Professor of Exercise Science, Dr. Wayne Westcott gives an enthusiastic seal of endorsement to the Nautilus® neck strengthening protocol – an important component of the Korebalance Concussion "Program.

"I could not be more pleased with the **Korebalance Concussion Management** Program. Every aspect of this innovative neck strengthening and conditioning program is excellent. We have used the recommended training protocol and most of the suggested exercises for many years with highly reinforcing results. The relatively brief time commitment required to perform these advantageous exercises is an investment well-worth making for both the muscle strengthening benefits and the reduced risk of serious neck injuries. My heartfelt congratulations for designing and developing this practical, performance oriented program to help athletes at risk for neck injuries and concussions."



NOTES:



For more information about *Medical Fitness Solutions* and *Korebalance*® Balance Assessment products, please visit:

[w]: www.medicalfitsolutions.com

[e]: info@medicalfitsolutions.com

(USA): 1.800.831.7665

(International): +1.760.451.3445

### Medical Fitness Solutions, LLC 543 East Alvarado St, Fallbrook CA 92028

Please contact us if you would like to book an interactive webinar that brings our showroom to you.

Medical Fitness Solutions is a minority woman owned small business.



All Korebalance frames are treated with a bonded, antimicrobial barrier

In the interest of product development and improvement, specifications subject to change without notice.