

Advanced Technologies

to Improve Patient Wellbeing



POWER  PLATE®
HEALTHCARE

bioDensity™

01 Patient Well Being

in Motion

Performance Health Systems focuses on preventive technological solutions, providing medical professionals with proven technologies designed to enhance the overall health, quality of life and longevity of their patients. These technologies have gained acceptance by major medical, rehabilitation, and therapeutic centers around the world.

Power Plate®, the leading brand of whole body vibration equipment, provides a multitude of benefits for users of diverse ages and physical conditions. As a non-invasive modality, this technology addresses a broad range of debilitating symptoms and speeds recovery time, allowing patients to quickly get back to normal daily functions. Providing benefits for patients of diverse backgrounds and physical conditions, the whole body

vibration technology behind Power Plate® devices is both safe and effective, leading to an improved quality of life.

Injury prevention and rehabilitation are key aspects of overall patient care. With a focus on improving structural strength and stability, the bioDensity™ system introduces patients to four safe and precise self-loaded movements which stimulate all major muscle groups of the body. These load exposures promote adaptation of muscle at the appropriate speed for each patient. In addition, force production measures are recorded for each load exposure to effectively track improvements with repeated use.



02 Improving Treatment

of Rehabilitation and Chronic Pain

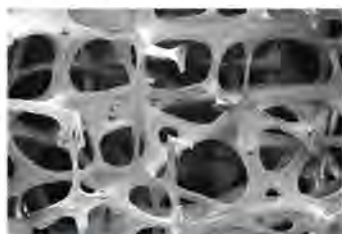
Together these two products have demonstrated dramatic benefits in patient rehabilitation and in the management of chronic pain. Healthcare professionals, including chiropractors, orthopedic surgeons, and physical therapists, have reported the following improvements:

- Decreased overall and specific pain
- Quicker recovery of damaged muscles and tendons
- Faster recovery post stroke/CVA
- Improved blood circulation and lymphatic return
- Accelerated recovery of the tissues post ACL reconstruction
- Improved neural plasticity and sensory motor function in spinal cord injury
- Reduced pain, improved mood and increased activity levels in patients with fibromyalgia

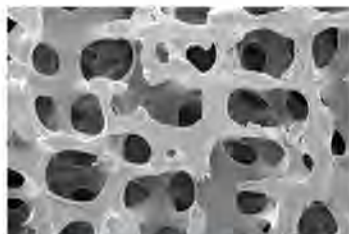
03 A Fresh Perspective

for Bone Density and Joint Integrity

Our technologies offer effective non-pharmaceutical alternatives to the treatment and prevention of both osteoporosis and arthritis by stimulating the body's natural processes.



Osteoporotic Bone



Normal Bone

The bioDensity™ system can aid your patients in safely increasing bone density and joint integrity by stimulating the generation of new bone and strengthening joint cartilage. This response occurs as a result of self-applied compressive forces.

The ability of bone tissue and cartilage to adapt their mass and structure to deforming mechanical loads is well documented. These adaptations derive from tension, compression and/or torsion being placed directly on, and between, bone structures. Each type of force must generate the proper level of mechanical load to produce the desired effect. The end result, over time, is denser bone and stronger cartilage.

bioDensity allows for a self-loaded, compressive contraction of the working muscles to produce force. The unique design of the device utilizes the optimal biomechanical position to generate force for the safe compression of bone tissue and cartilage. As a compliment to bioDensity, the destabilizing effect of Power Plate leads to a hormonal response which may increase bone density. As a result, patients can reduce their risk of developing conditions like osteoporosis and arthritis, giving them a greater chance of maintaining their independence later in life.

04 A New Path

for Neuromuscular Rehabilitation

Neurological factors play an important role in muscle function, strength and coordination of movement. Together the Power Plate and bioDensity devices stimulate neurological adaptations in muscle including:

- Optimized posture and biomechanics
- Improved synchronization of nerve impulses
- Improved co-contraction of synergist muscles
- Inhibition of antagonist muscles
- Increased size and recruitment of motor units

The overall result is faster accessibility of motor units, higher volume of recruitment and more efficient use of muscular contractions. In addition, these contractions lead to enhanced muscle strength, increased circulation and more effective blood flow, ultimately improving a patient's quality of life.

05 Fresh Technology

for Rejuvenation

Improving overall health, quality of life and longevity are leading concerns as the aging population continues to grow in size. As a suitable treatment for various ailments afflicting the aging population, the whole body vibration technology behind the Power Plate produces measurable results. In fact, healthcare professionals have reported benefits in conditions ranging from debilitating chronic illness to simple cosmetic concerns, including:

- Improved spinal stability
- Increase in bone mineral density
- Improvement in metabolic function
- Increase of muscle mass
- Cellulite reduction
- Improved muscular tone and stability
- Improved balance and injury prevention

Our technologies are backed by research and proven by science, which has allowed our devices to gain acceptance from major medical, rehabilitation, and therapeutic centers around the world.

Power Plate®

The vibration technology behind Power Plate equipment enhances motor unit recruitment and synchronization resulting in increased force production and efficiency of movement. Power Plate creates 25-50 vibrations per second forcing the body's kinetic chain to respond each time, requiring stabilization, coordination, strength and endurance.



In response to the vibration stimulus, individuals can produce up to 95% of their voluntary force potential while performing safe and pain free movements. These positive outcomes are made possible by the multi-dimensional stimulation of the body's natural reflex arc allowing sensory motor function to be created and developed at a subconscious level.

The Power Plate device creates a level of proprioceptive stimulation complimentary to the demand of Earth's gravity without excessive loads being placed on the musculoskeletal system.

The vibrations produced by the Power Plate device trigger neurological responses in muscle, which stimulate sensory receptors to elicit a "tonic vibration reflex." When using Power Plate, the recruitment threshold of motor units is lower when compared to threshold during voluntary muscular contraction. More importantly, involuntary contractions occur in response to the vibration stimulus. Therefore, patients with limited mobility can benefit just as much as patients who are more agile.

Healthcare professionals have successfully used the vibration technology behind Power Plate devices to manage a variety of disease states and rehabilitating conditions, including:

- Idiopathic peripheral neuropathy
- Osteoporosis
- Multiple sclerosis
- Parkinson's disease
- Cerebral palsy
- Rheumatoid arthritis



bioDensity™

The bioDensity system safely aids in increasing bone density and joint integrity by stimulating the body's own natural processes. Based on the science of Wolff's law, the theory demonstrating bone adaptation to applied pressure, the bioDensity process applies optimal biomechanics for the self-compression of bone mass. In addition, compressive forces are applied to cartilage found between the ends of bone, resulting in an increase in joint strength. Just like muscle, human bones, tendons, and ligaments strengthen under pressure and weaken if unused.

bioDensity™

Four safe and precise compressive movements stimulate all major muscle groups, joints and bones of the body:

- Chest Press
- Leg Press
- Core Pull
- Vertical Lift

By generating load in the optimal biomechanical position, users recruit a higher percentage of motor units than conventional exercise. Unlike other modalities, loads are self-applied and regulated by the user's level of comfort, resulting in safety and reliability with each application of load.



Chest Press



Leg Press



Core Pull



Vertical Lift

The bioDensity is safe, effective, and delivers measurable results. Each patient's performance is carefully monitored and reports are generated immediately following each session.

You should consult a physician before any exercise program, including a program involving the use of either the Power Plate® or bioDensity™ device. If you have any known medical condition or any physical limitations on your ability to exercise, Performance Health Systems strongly recommends you seek the advice of a physician before using these technologies. If, while using either of these devices you feel dizzy, faint, short of breath, or any pain, stop using the device immediately and consult a physician.

07 Build Your Practice (US only)

and Revolutionize Your Results

Our technologies help healthcare professionals grow their practice by creating unique profit centers in prevention, treatment, and rehabilitation. By improving patient retention and offering inactive patients a reason to return to the facility, Performance Health Systems provides solutions for practices looking to expand.

Power Plate and bioDensity devices each fit conveniently in treatment rooms and their use is easily taught to staff and patients. Your patients remain in your office for maintenance exercise, which allows for the supervision of progress in a billable setting. The cost per billing unit typically ranges from \$25 to \$50, depending on the duration of the intervention and the CPT code used. Possible CPT descriptions include:

- 97110 - Therapeutic Exercise
- 97112 - Neuromuscular Reeducation
- 97116 - Gait Training
- 97535 - Therapeutic Activities
- 97533 - Sensory Integrative Techniques

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"It has been nine months since my first introduction to the Power Plate® machine and its concept of whole body vibration...Today, the Power Plate® machine is the most utilized piece of equipment in my office. It runs continuously throughout the day, 6 days a week. I've been able to increase my billable services and grow my practice faster than any other method."

Dr. Dennis Sall, Mount Sinai, N.Y.

"I am a physician who specializes in Physical Medicine and Rehabilitation. I see enormous potential for Power Plate® as a modality for increasing strength, balance, and endurance in the medical arena. It will be useful not only in rehabilitation following trauma, strokes, and other debilitating illnesses, but also in decreasing the rate of deterioration in progressive neurological diseases such as multiple sclerosis and Parkinson's Disease.

I can testify to its effectiveness as I am a Power Plate® owner and user. I have been using Power Plate® and have noted marked improvements in my balance, strength, endurance, and feeling of wellbeing. Just 15 minutes three times a week has resulted in dramatic changes."

Karen K. Bloom, MD, FACP

