



Pain MANAGEMENT

SPECIAL INTEREST GROUP • ORTHOPAEDIC SECTION, APTA, INC.

PRESIDENT'S MESSAGE

Joseph A. Kleinkort, MA, PhD, PT, CIE

Nashville is now in the rearview mirror. The programming this year seemed better than ever! Our courses on both Laser and Functional Manual Therapy were standing room only and closed due to lack of room. All were eagerly soaking up all the information and many were interested in advanced courses. We will try to offer more programming in these areas in the future since the response was so overwhelmingly positive.

I was able to meet many students and introduce them to both the Orthopaedic Section and the Pain Management SIG, and I received numerous requests from them to come and give courses at their schools. I hope to see many of you this coming year in my travels throughout the US. If you are interested in having a short course in one of your schools, just give me a call and we will try to arrange it.

The Orthopaedic Section is getting a few PowerPoint slides together that we all can use when we give lectures throughout the US to get the word out on the Orthopaedic Section. We have such a diverse and powerful group that can benefit the clinician in many and varied ways.

On the analgesic front, a new study of 25 burn patients will be reported on in Vancouver on the 25th of March at the American Burn Association. The overall aggregate decrease in pain was 60% by treating 4%TBSA burn for 2 min with frequencies of 12 and 28 hz with a 5 mw laser at 635nm from Erchonia. The average burn size was 7.1%TBSA and the reduction of pain was from 6 to 18 hours. Dr J.W. Nelson, MD also reported visual improvement of tissue color and perfusion of the injured tissues. This will have very profound effects on the treatment of burn cases and possible reduction of narcotic requirements.

I encourage you to send me new studies that can be published in our area of pain management so that all can be up to date on the very latest that can be done in our area of helping our patients have a better quality of life.

Power Plates® Advanced Body Vibration™: Tapping The 'Healing Well' Within

Joe Kleinkort, PT, MA, PhD, CIE

From herbal concoctions to synthetics, and ultrasound to electro-stimulus, healing professionals have long searched the limits of nature and technology to identify and develop methods or external sources for pain reduction, healing, and overall wellness and longevity. Within this incessant drive for external answers, it seems that often we overlook the most convenient, highly engineered, and natural source for solutions: the human body itself.

Whether the ability for bones to regenerate, strengthen, and heal themselves, or antibodies to fight the internal microscopic battle against the common flu, the miracle of physiological engineering that is the human body is armed with innate mechanisms of both self defense and recovery unparalleled by any external source or method. A quickly emerging technology known as 'whole body vibration' or 'Advanced Vibration Technology™' is the latest and arguably greatest example of this notion of the body's own 'self-help' capability.

Advanced Body Vibration exploits the human body's innate reflexive response to disruptions in stability, in order to stimulate enhancements in muscle strength and performance, flexibility and range of motion, release of critical fitness, wellness and longevity hormones, fat reduction, and reduction of pain, particularly lumbar back ailments and then some. Just as the leg kicks forward involuntarily when the doctor strikes our lower knee to test reflexes, the body's muscles also engage in an involuntary reflexive contraction in response to each disruption in stability. Again, the body's reaction to these disruptions is totally natural and occurs involuntarily and unconsciously at the neural level.

Los Angeles-based Power Plate North America introduced the country's first mass-distributed Advanced Body Vibration training machine, The Power Plate, in 2002, and already has made a substantial impact on the world of sports medicine and strength and conditioning. Professional teams from all 4 major sports, including the NFL's World Champion Tampa Bay Buccaneers, the NHL Stanley Cup finalist Anaheim Mighty Ducks, and Major League Baseball's Chicago Cubs among many other pro teams, currently use the Power Plate for its host of whole body vibration training benefits. As a result, the Power Plate is now gaining attention among mainstream health and fitness professionals and longevity centers across the country. But the Power Plate is not merely a fitness method for elite athletes, but also for the host of Americans young and old who want to live healthier, longer lives.

Results of a study conducted at the University of Leuven in Belgium, and published earlier this year in the official *Journal of the American College of Sports Medicine*, measured the results of subjects who strength trained using whole body vibration via the Power Plate, and compared these with that of subjects engaged in conventional resistance training. The study concluded that subjects training on the Power Plate experienced the same strength gains in no more than three 15 to 20 minute sessions per week, as did the conventional resistance training group, engaged in lengthier 60 to 90 minute sessions.¹

The Power Plate resembles a large scale, featuring a 2x3-foot platform. Individuals need merely assume a 'soft squat' (standing with knees slightly bent) position on the platform, with subtle vibrations occurring 30 to 50 times per second, triggering the critical reflexive muscle contraction throughout the body. Each set performed on the Power Plate is no longer than 30, 45, or 60 seconds in length, and training sessions on the machine need to be performed no more than 3 to 4 times a week with each session lasting a maximum of 10 minutes of actual time on the plate.

In addition to providing a proven fitness and longevity method to fitness enthusiasts and elite athletes, the Power Plates Advanced Vibration Technology allows individuals with debilitating conditions such as arthritis, multiple sclerosis, Parkinson disease, and stroke victims to enjoy the benefits of exercise working within their personal limitations. Published research studies conducted at the State University of New York at Stony Brook and the Laboratory for the Research of the Musculoskeletal System at KAT Hospital in Athens, Greece, also have shown that whole body vibration training may provide the only method of actually counteracting the degeneration of bone density without the aid of pharmacology, thus providing the ultimate weapon against osteoporosis which affects millions of Americans each year.²

Another recent study found that using whole body vibration therapy increased growth hormone levels by 361%, a drastic improvement which may slow the effects of aging.³

Whole body vibration may be a new concept to most Americans; however, it was developed by Russian Olympic trainers looking to maintain a competitive edge during the 1970s when the Russians were dominating Olympic play. Success with athletes led to research by the Russian space program, yielding compelling data supporting the technology's ability to combat the degenerative effects of zero gravity conditions on muscle and bone tissue (NASA is conducting similar research with the Power Plate). A host of European research, published here in the United States is currently available supporting the various claims of body vibration training.

The Power Plate with its revolutionary Advanced Vibration Technology is offering a solution that will not only improve the quality of life day-to-day, but ultimately add precious years as well.

It's important to note that there are several groups or conditions for which training on The Power Plate is not recommended including individuals with pacemakers, immediately following surgical procedures or during pregnancy.

For more information on whole body vibration training technology and the Power Plate, contact Power Plate North America toll free at 1(877)-87PLATE or visit www.powerplate-usa.com.

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