

HOW Whole Body Vibration Works

If you read the history page, you know that the technology was originally designed to increase bone density and muscle mass. When you start to use your VibraTrim, you will notice how your body automatically adapts to the vibrations. One of the first results you will have is increased flexibility and range of motion. By standing on the plate, the vibration generates systematic involuntary muscle contraction through out the body not only increases your flexibility but also burns fat by increasing your metabolism while it improves your circulation and provides your cells with ideal oxygen and nutrient delivery to slow the degenerative process.

The VibraTrim unit is designed to create adjustable vibrations from 10-50 Hz by a oscillating vibration. This pivotal system vibrates at the correct speed from a medical and body-toning standpoint. The VibraTrim generates systematic involuntary muscle contraction with less G force than the “piston” type systems, the other style of Whole Body Vibration that is on the market. The piston style offers a straight up and down motion like a jackhammer. This type of “up and down” piston movement and vibration is known to cause problems that can result in bad backs (truck drivers and others) and other various physical areas (carpal tunnel).

Science has learned that the human body adapts to various stressors and stimuli. The Whole Body Vibration produces amazing results as a result of that adaptation process. When you stand on your VibraTrim, the vibration energy is transferred to your entire body. This first stimulates receptors in the Achilles tendon that stimulate nerve receptors, which track up to the cerebellum (the part of the brain that is responsible for balance). This pleasant vibrating action causes the brain to tell the muscles of your body to actively contract to maintain its equilibrium, thus creating a therapeutic and muscle-toning workout.

Automatically Exercising and Toning Your Muscles

You are familiar with the patellar or knee-jerk reflex (when a Doctor hits the tendon below the kneecap). This stretch reflex (myotatic) is an automatic muscle contraction in response to stretching within the muscle. When you are using your VibraTrim, the vibrating plate provides the stimulus for a similar type of reaction for your entire body. The various exercise positions will require those particular muscles to respond affecting all of its muscle fibers, ligaments and tendons. Using a variety of exercise positions the entire body can exercised and toned. The plate by moving very fast creates an unbelievable stimulus causing your muscles to tone and strengthen faster than any other form of exercise.

Increases Bone Density

The muscles are attached to the bones. When they contract, they pull on your bones. The harder the muscles work, the more stress they place on the skeleton. When this happens, there is an increase in

the density of the bones. They actually get stronger on the insides because more bone has formed there. More massive bones are sturdier bones. This bone formation benefit accumulates over time. The longer a person uses their VibraTrim the stronger their bones will get. Broken bones are the leading reason elderly people end up in nursing homes. Strong bones enable you to have an active and healthy lifestyle that leads to a longer life. Weak bones will shorten your life expectancy.

Increases Your Lymphatic Drainage

Our body vibrates every single moment it pumps blood. Hence, vibration is essential for our blood circulation and lymphatic drainage. But what is lymphatic drainage? The lymphatic system is a network of ducts and nodes that drains toxins out of the muscles in the body. These nodes help in conveying antibodies into the muscles, making our bodies stronger and resistant to fatigue. Lymph nodes play a significant role in our immune system, which most people forget to pay attention to. Unfortunately, the lymphatic system is not capable of pumping toxins out of these nodes by itself and heavily relies on muscle activity. When you stand up straight on your VibraTrim, you can feel the aches and pains of standing all day, exercising or just plain working going away as stiffness and tightness of your muscles seems to drain away. This is the lymphatic drainage at work while it also fights infection and bacteria. Spending a few minutes a day on your VibraTrim will make you feel lighter, looser and more relaxed. Try it after a tough day. You will be amazed at your revitalization.

Increases Your Circulation

Muscles contraction requires oxygen and glucose. By increasing the number of muscle contractions, so does your need for oxygen and glucose. Your body responds naturally by increasing the heart rate to provide those vital elements to your muscles. As a result, your VibraTrim is automatically increasing your blood flow.

Lowers Your Stress

Stress can cause the release of Cortisol. Cortisol is terrible for the body - it causes your body's inflammation levels to go up, it robs you of sleep, wipes out your adrenal glands and after a while leaves you constantly exhausted. Exercising on your VibraTrim helps your body to reduce the levels of Cortisol and replace it with the release of endorphins, the "Feel Good" hormones.

Improves Your Balance

The human brain is built to keep our bodies in a state of equilibrium, balance, and stability. If someone pushes your shoulder, your brain responds by telling you to lean back against the push so you don't fall over. If you're standing on a platform that is moving 20 - 50 times per second, your brain must respond quickly by triggering certain muscles to contract and others to relax so that you maintain your balance. The brain is forced to respond to the rapidly moving surface under you or you would fall over! The

VibraTrim make muscles stronger and improves balance. That makes it less likely that you will break a bone if you happen to fall down. Strong muscles protect the bones from damage in an impact. Improved balance also makes it less likely that you will fall down in the first place.

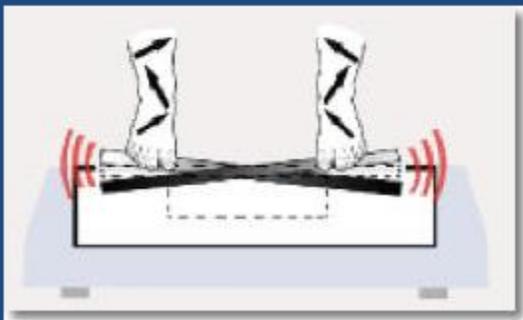
The benefits of WBV training are considerable,

as evidenced by its acceptance in major medical, rehabilitation and therapeutic centers across the country. The health benefits are multifold and results can be achieved easily. It can enhance your general well being and quality of life regardless of age, medical, neurological or physical condition. WBV training is not difficult, but it can be challenging - the degree of difficulty is entirely up to you.

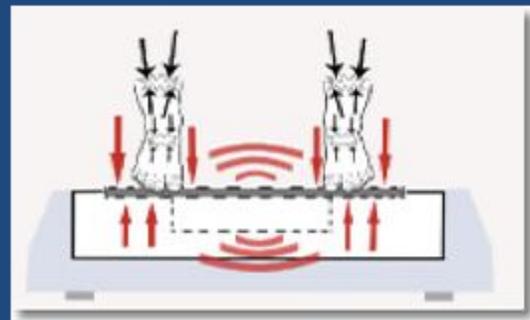
Whole Body Vibration increases the production of the regenerative and repair hormones. It also improves the blood circulation, increases the basal metabolic rate, strengthens bone tissue and improves lymph drainage. The net result is more strength, stamina, speed, increased flexibility, mobility and coordination, rapid recovery of muscles and tissue, improved collagen production and fat reduction. This is achieved with minimal stress on the joints and ligaments. You can perform static or dynamic movements including standing, sitting, kneeling, lying, and placing your hands on it. Almost any exercise from a typical gym workout to passively sitting on a chair and resting your feet can be done on a VibraTrim. Talk about the ideal program. This is it.

There are two basic types of (WBV) movements:

Oscillating (pivotal)



Linear (vertical/tri-planar)



Oscillating: Oscillating (pivotal) movement generally supported by the medical community as a healthier type of vibration as it can handle more weight, have much less vertical impact on the body, reduce stress on the organs, and help keep the spine more flexible and loose. When using oscillating whole body vibration equipment, the engaged muscles contract alternately as in normal walking motion, so the same muscle groups on both sides of the body are not contracted at the same time. This is the style that is used by VibraTrim.

Linear: Linear (vertical/tri-planar) movement primarily duplicates the jump reflex in the body. The muscles on both sides of the body contract simultaneously resulting in very high impact. Repetition of this sort of impact makes certain positions on this type of WBV exerciser unsuitable. User with joint or

spine problems may find this muscle contraction uncomfortable and may benefit from an oscillating machine. Many users tell of increased headaches after using this style. Linear WBV exercisers are effective for improving jump height, which is why they are popular with football and basketball players.

The VibraTrim Models

Even machines costing thousands more are not of the same Quality, Construction or Performance! The VibraTrim is solid quality construction and a quiet operation, unlike others that feel like they are going to break, are unstable and are very loud. !

Reasons to buy VibraTrim:

- Our Solid Steel construction (not plastic like the others) assures a solid and quiet operation!
- Heavy Duty - powerful motors sized to fit the model
- Quality components
- Easy operation - simple manual controls and three preset programs. (plus user definable programs on the VT400 model)
- Easy monitoring of your body fat on the VT100 or Heart Rate on the VT400
- Proper vibration motion with proper oscillating (pivotal up/down movement) - not vertical!
- Affordable - comparable vibration machines sell for between \$3000 and \$14,000!
- Unbeatable Two year Warranty!

BENEFITS of Whole Body Vibration

Whole body vibration has been researched for more than 100 years and has been proven to have the following benefits:

1. Increases flexibility, range of motion and mobility (decreases muscle tightness and increases mobility - the abilities to walk and stand)
2. Improved balance and coordination
3. Provides benefits of both anaerobic and aerobic exercise
4. Increases physical strength, dexterity, and endurance
5. Reduces arthritic pain, joint and ligament stress
6. Improved pelvic floor function (this can help to reduce bladder problems or incontinence)
7. Relieves menopausal symptoms
8. Increases the “happiness” hormones serotonin and neurotrophine, substances that support our thinking process (this helps to reduce
9. Decreases the stress hormone cortisol
10. Enhances strength and fast twitch muscles (reduces spasticity and increases smoothness of muscle function)
11. Enhances conventional training results
12. Speeds training recovery
13. Enhances pain reduction
14. Improves collagen production (joint repair)
15. Relieves tension and chronic pain in ankles, knees, lower back and neck
16. Posture is enhanced and strengthened overall
17. Enhances critical blood flow throughout the body (oxygenation and lymph drainage) (increases how well your body can detoxify and helps with brain function, since the brain is getting more oxygen to help it to function better).
18. Diastolic blood pressure decreased
19. Increases secretion of hormones that are important in regeneration and repair processes, such as HGH (Human Growth Hormone), IGF-1, and testosterone
20. Decreased Cortisol levels (stress hormone)
21. Enhanced athletic performance due to improved muscle strength and tone
22. Important muscle groups are worked
23. Using simple adjustments in posture and body positioning, produces the effects of 80 different exercises
24. Decreased recovery time after workouts
25. Increased tendon strength
26. Increased basal metabolic rate
27. Accelerated weight loss
28. Increased bone strength, density and fights osteoporosis
29. Increased lumbar proprioception

30. Reduced back pain and stiffness
31. Positive results seen on neurological conditions such as Parkinson's
32. Reduced effects of stress and stress incontinence
33. Rehabilitates injuries and ailments
34. Stimulated lymphatic drainage
35. Reduces appearance of cellulite (reduces weight gain and helps to tone the body)
36. Tones and tightens skin
37. Improved collagen production

STUDIES

Arthritis Studies

- [Natural Treatment for Arthritis with Whole Body Vibration](#)
- [Effect of whole body vibration exercise on muscle strength and proprioception in females with knee osteoarthritis](#)
- [Influence of Whole Body Vibration Platform Frequency on Neuromuscular Performance of Community-Dwelling Older Adults](#)
- [Whole body vibration compared to conventional physiotherapy in patients with gonarthrosis: a protocol for a randomized, controlled study](#)
- [Does Acute Whole Body Vibration Training Improve Physical Performance for People with Knee Osteoarthritis?](#)
- [Whole-Body Vibration Compared To Traditional Physical Therapy In Individuals With Total Knee Arthroplasty](#)

Blood Circulation Studies

- Metabolic And Cardiovascular
- Whole-body vibration exercise leads to alterations in muscle blood volume
- The effect of whole body vibration on lower extremity skin blood flow in normal subjects
- Whole-body vibration dosage alters leg blood flow

Bone Density Studies

- Whole Body Vibration Therapy Increases Bone Strength
- Anabolism - Low mechanical signals strengthen long bones
- Adaptive responses of human skeletal muscle to vibration exposure
- Effect of 4-month vertical whole body vibration on performance and balance
- Effect of 6 Month Whole Body Vibration on Hip Density Muscle Strength and Postural Control in Postmenopausal Women

- Estrogen and Bone-Muscle Strength and Mass Relationships
- Prevention of Postmenopausal Bone Loss by a Low-Magnitude, High-Frequency Mechanical Stimuli A Clinical Trial
- Assessing Compliance Efficacy and Safety
- The anabolic activity of bone tissue, suppressed by disuse, is normalized by brief exposure to extremely low-magnitude mechanical stimuli
- The effect of weight bearing exercise with low frequency whole body vibration on lumbosacral proprioception
- Transmissibility of 15-Hertz to 35-Hertz Vibrations to the Human Hip and Lumbar Spine
- Whole Body Vibration effect on spinal cord injury
- Low-frequency vibratory exercise reduces the risk of bone fracture more than walking
- Whole-body vibration can reduce calciuria induced by high protein intakes and may counteract bone resorption: A preliminary study
- Low-level mechanical vibrations can influence bone resorption and bone formation in the growing skeleton

Cerebral Palsy Studies

- Whole Body Vibration Therapy Increases Bone Strength
- Vibration Intervention to Improve Bone and Muscle in Children with Cerebral Palsy
- Whole-body vibration training compared with resistance training: effect on spasticity, muscle strength and motor performance in adults with cerebral palsy.
- Preliminary results on the mobility after whole body vibration in immobilized children and adolescents
- Whole-body vibration training for people with cerebral palsy
- Effects of whole-body vibration on spasticity, balance, & hamstring flexibility in a child with cerebral palsy: a case report
- Vibration treatment in cerebral palsy: A randomized controlled pilot study
- Vibration Intervention to Improve Bone and Muscle in Children With Cerebral Palsy

Diabetes Studies

- Efficiency of vibration exercise for glycemic control in type 2 diabetes patients
- The Magic of the Vibration Exercise Machine
- The effect of whole body vibration on lower extremity skin blood flow in normal subjects.
- Take Advantage of the Health Benefits from Whole Body Vibration Machines

Fall Prevention Studies

- Controlled Whole Body Vibrations to decrease fall risk and improve related quality of life in elderly
- Controlled Whole Body Vibrations Improve Health Related Quality Of Life In Elderly Patients
- Vibration therapy improves walk, balance in elderly
- Controlled whole body vibration to decrease fall risk and improve health-related quality of life of nursing home residents
- Controlled Whole Body Vibrations to decrease fall risk and improve related quality of life in elderly
- Controlled Whole Body Vibrations Improve Health Related Quality Of Life In Elderly Patients

Fibromyalgia Studies

- Use of Vibration Assisted Exercise in Fibromyalgia Patients
- Whole Body Vibration as Fibromyalgia Treatment
- Six weeks of whole-body vibration exercise improves pain and fatigue in women with fibromyalgia.
- Improving balance in fibromyalgia using whole-body vibration
- Effective fibromyalgia treatment with whole body vibration
- Fibromyalgia and Whole Body Vibrations

Fitness Studies

- Acute changes in neuromuscular excitability after exhaustive whole body vibration exercise as compared to exhaustion by squatting exercise
- Acute Effects Of Whole-Body Vibration On Muscle Activity Strength & Power
- Acute physiological effects of exhaustive WBV exercise in man
- The effects of Whole Body Vibration
- Human Responses to Vibration Therapy
- Whole body vibration exercise are vibrations good for you
- Whole body Vibration vs. Walking
- Vibrating Machines Make a Comeback
- Vibration Platforms May " Shake Up" Warm-Ups for Softball Players

Flexibility/Mobility/Balance Studies

- Balance Training and Exercise in Geriatric Patients
- Effect of 4-month vertical whole body vibration on performance and balance
- Effect of vibration exposure on muscular performance and body balance
- Effect of whole-body vibration exercise and muscle strengthening, balance, and walking exercises on walking ability in the elderly

- Effect On Muscles Of Mechanical Vibrations Produced By The Galileo 2000 In Combination With Physical Therapy In Treating Female Stress Urinary Incontinence
- Effects of whole body vibration training on postural control in older individuals: A 1 year randomized controlled trial
- Suppressive mechanism of gastric motility by whole-body vibration
- The Feasibility Of Whole Body Vibration In Institutionalized Elderly Persons And Its Influence On Muscle Performance, Balance And Mobility
- Whole-Body Vibration Exercise In The Elderly People
- Whole-body-vibration training increases knee-extension strength and speed of movement in older women

Hormonal Response Studies

- Effect of 6 Month Whole Body Vibration on Hip Density Muscle Strength and Postural Control in Postmenopausal Women
- Effects of vibration and resistance training on neuromuscular and hormonal measures
- Hormonal responses to whole-body vibration in men
- Suppressive mechanism of gastric motility by whole-body vibration

Metabolism Studies

- Metabolic And Cardiovascular Responses During WBV
- Metabolic Study Shows Promise

Multiple Sclerosis Studies

- Effects of whole-body vibration in patients with multiple sclerosis
- How can Whole Body Vibration Exercise Help with Taming MS Symptoms?
- MS and WBV: A Promising Combination.
- Effects of whole-body vibration in patients with multiple sclerosis: a pilot study
- Whole Body Vibration Therapy in Participants With MS Related Balance Deficits

Neurological Conditions Studies

- Effect of whole body vibration stimulus and voluntary contraction on motoneuron pool
- Motor rehabilitation of spinal cord dysfunction by means of whole body vibration
- Neuromuscular Responses To Two Whole-Body Vibration
- Short-term Effects on WBV on Postural Control in Unilateral Chronic Stroke Patients
- The effects of whole body vibration on reflex-induced standing in persons with chronic and acute spinal cord injury

Osteoporosis Studies

- Effect of 6-month whole body vibration training on hip density, muscle strength, and postural control in postmenopausal women: a randomized controlled pilot study
- Effect of whole-body vibration exercise on lumbar bone mineral density, bone turnover, and chronic back pain in post-menopausal osteoporotic women treated with alendronate
- Low-Level, High-Frequency Mechanical Signals Enhance Musculoskeletal Development of Young Women With Low BMD
- Whole body vibration exercise: are vibrations good for you?
- Effect of 6-month whole body vibration training on hip density, muscle strength, and postural control in postmenopausal women
- Whole-Body Vibration for Osteoporosis
- Reversing Osteoporosis Naturally With Whole Body Vibration
- Low-frequency vibratory exercise reduces the risk of bone fracture more than walking:
- Whole Body Vibration for Osteoporosis and Fall Prevention
- Whole-body vibration as potential intervention for people with low bone mineral density and osteoporosis
- Is High-Vibration Exercise Safe for Patients With Osteoporosis?
- High-Frequency Vibration Training Increases Muscle Power in Postmenopausal Women
- Vibration exercise makes your muscles and bones stronger: fact or fiction?

Pain Management Studies

- The effects of whole body vibration on reflex-induced standing in persons with chronic and acute spinal cord injury
- The role of paraspinal muscle spindles in lumbosacral position sense in individuals with and without low back pain

Parkinson's Disease Studies

- Effects of random whole-body vibration on postural control in Parkinson's disease
- Whole Body Vibration for Parkinson's Disease
- Parkinson's Patients Rehab with Whole Body Vibration
- <http://cre.sagepub.com/content/21/9/782.abstract>

Performance Studies

- Acute & Residual Effects of Vibratory Stimulation on Explosive Strength in Elite and Amateur Athletes
- Acute effects of whole-body vibration on muscle activity, strength, and power

- Comparing the Effects of Different Whole Body Vibration Intensities on Vertical Jump Performance
- Effect of 4-month vertical whole body vibration on performance and balance
- Effect Of Knee Flexion Angle On Neuromuscular
- Effect of vibration exposure on muscular performance and body balance
- Effect of Whole-Body-Vibration on Muscular Performance, Balance & Bone
- Effects on leg muscular performance from whole-body vibration exercise
- Electromyographic response during whole-body vibrations of different frequencies with progressive external loads
- Electromyography Activity of Vastus Lateralis Muscle During Whole-Body Vibrations of Different Frequencies
- Improving strength and postural control in young skiers: whole-body vibration versus equivalent resistance training
- Influence of vibration frequency amplitude and external load
- Influence of vibration on mechanical power and electromyogram activity in human arm flexor muscles
- Oxygen uptake during whole-body vibration exercise comparison with squatting as a slow voluntary movement.
- Oxygen uptake in whole-body vibration exercise
- Strength increase after whole-body vibration compared with resistance training
- The assessment of vibromyographical signals in the time and frequency domains during a fatigue protocol
- The effects of a whole-body vibration program on muscle performance and flexibility in female athletes
- Vibration Training Versus Equivalent Power Training For Young Skiers Effects On Strength
- Vibrations and their applications in sport
- Whole-body-vibration-induced increase in leg muscle activity during different squat exercises.
- Will Whole-Body Vibration Training Help Increase The Range Of Motion Of The Hamstrings?

Rehabilitation Studies

- Medicinal EMFs: Harnessing Electric and Magnetic Fields for Healing and Health
- Molecular pathways mediating mechanical signaling in bone
- New Trend in Fitness, Wellness and Healing
- OSU Researchers to Shake-Up Hip Replacement Therapy
- Power Plate Stimulates Recovery After ACL Rupture
- Preliminary results on the mobility after whole body vibration in immobilized children and adolescents
- Short-Term Effects of Whole-Body Vibration on Postural Control in Unilateral Chronic Stroke Patients: Preliminary Evidence
- The effect of weight bearing exercise with low frequency whole body vibration on lumbosacral proprioception