



Whole Body Vibration FAQ's

1. Is Whole Body Vibration training something new?

No, Whole Body Vibration (WBV) has been used as an exercise and therapeutic tool since the late 1800s. The research of this technology really began in the late 70's with the development of a vibration system by one of Russia's key sports scientists, Dr. Vladimir Nazarov. He was an active sportsman, a member of the Soviet gymnastics team and occupied a chair for sports biomechanics at the State College in Minsk. He first introduced this technology to competitive sports, ballet, and medicine in the former USSR. The Russian Space Program uses the technology with their astronauts suffering from considerable bone loss and poor muscle tone due to weightlessness.

Once communism fell in Russia, the secrets of WBV made its way to Europe in the early 1990's. Just like in Russia, other European athletes began using this form of effective exercise. In addition, the European Space Agency and NASA are actively using vibration in ongoing studies for the maintenance of muscle strength, mass, and bone density.

Currently, WBV is being used in hospitals, physical therapy clinics, and rehabilitation facilities. Everyone from the elderly, the physically disabled, and the average person looking to get toned is using this form of exercise. Due to its many benefits the technology is quickly gaining acceptance by universities, professional sports teams, and health professionals in the rehabilitation and medical fields.

WBV training has 40 years of research behind its science. With any technology, the individual needs to take a critical look at the research and validity behind it. WBV has been featured in such prestigious and influential peer reviewed journals as *Spine*, *Journal of Bone and Mineral Density*, and *Medicine & Science in Sports & Exercise*.

With its wide potential application, new research is constantly being initiated across numerous North American and European Universities. Since most WBV systems were developed in Europe, most of the peer-reviewed publications have come from there. At present there are nearly 100 articles dealing with the effects of and related benefits of Whole Body Vibration.

2. Is vibration training safe?

Yes. WBV utilizes a very specific frequency range that is proven in research to be safe and effective. Every object has a resonance frequency. For example, internal organs and the spine have a resonance frequency between 5 and 10 Hz. Research reveals that longer term exposure to vibration at frequencies lower than 5 HZ is not recommended due to



resonate vibration of the organs. Our Style For Life Whole Body Vibration technology is designed to function within the safe range of 1-30 Hz.

3. Is there research behind this technology?

Vibration training has 40 years of research behind its science. With any technology, the individual needs to take a critical look at the research and validity behind it. WBV has been featured in such prestigious and influential peer reviewed journals as Spine, Journal of Bone and Mineral Density, and Medicine & Science in Sports & Exercise. With its potential applications, new research is constantly being initiated across numerous North American and European Universities.

4. What makes WBV training different from conventional training?

The WBV advantage over conventional training is due to its ability to provide more effective and efficient training without the multiple repetitions, joint stress and large time commitments associated with regular exercise. Research has shown strength gains equivalent to conventional resistance training at a fraction of the time commitment. Fifteen minutes of WBV training produces results comparable to one hour of conventional training. Therefore, WBV provides a safe and effective alternative to those who want benefit from weight training, but are unable or unwilling to engage in it.

5. What is the science behind WBV training?

The science behind WBV training follows several different principles:

The Stretch Reflex: The movement of a vibration plate with an amplitude of at least 4 mm simulates the body's natural 'stretch reflex' (Tonic Vibration Reflex). This is similar to the knee jerk reaction that occurs when the knee is tapped by a reflex hammer in a doctor's office. Without thinking about it, your body reacts with a strong involuntary muscle contraction, leading to your leg's 'kicking out' response. With WBV technology, these strong muscle contractions can be repeated at a rapid rate. At a frequency of 6 to 20 times a second, WBV can produce up to 1200 muscle contractions in one minute.

Muscle Recruitment: Due to its involuntary effect on muscle contraction, nearly 100% of the muscle fibers are recruited. Compare this to conventional training where there is on average only 40% muscle recruitment. 100% muscle recruitment benefits the rehabilitation patient looking to add stability and strength to all muscles around their joints, and to the athlete looking to maximize strength gains.

Blood Circulation: The gentle rapid contractions of up to 1200 times per minute allow the muscle to work as a pump introducing blood to even the smallest blood vessels. This increase in circulation leads to the ability of the body to carry off waste products much faster, leading to increased peripheral circulation.

6. What is the age limit to WBV training?

There is no upper age limit to this type of exercise. WBV has many benefits for the senior population, including positive effects on bone density, improvements in circulation, increase in strength, balance, and flexibility. All this is accomplished with less stress on the joints, tendons and ligaments than conventional training.

7. What is the youngest age for WBV training?

We recommend that no one younger than 12 years old use our product.



8. You state that using WBV is like weight training. Being a woman, I want to get more toned, but will I get bigger?

No. Getting bigger is mostly due to testosterone. Women generally do not have enough testosterone to cause muscle enlargement. WBV is designed to get you toned. You will begin replacing fat with muscle. This will not make you look bigger, it will make you look slimmer.

9. What exactly is cellulite and how does WBV help with this?

Cellulite is sometimes called the 'cottage cheese look'. This can happen to anyone at any age, regardless of whether you are skinny or overweight! Basically, cellulite is fat accumulation under the skin. This is usually in a honeycombed shaped pattern. In some people, this fat tends to bulge out like stuffing in a mattress. This is the 'cellulite' that you see.

In order to reduce cellulite, an exercise program has to be specific. Basically, you must increase muscle tone, and replace fat stores with lean muscle. Doing high repetitions of exercise at all the possible angles is one way to reduce cellulite. WBV is another, better way to accomplish this. WBV presents a very high rate of muscle contraction repetitions (1200 per minute) and works all muscle fibers.

10. I've heard people say that WBV training helps with anti aging. How is this possible?

There are many factors that go with aging. Inactivity and stress are two. This effective WBV training takes only 10-20 minutes a day, three times a week. WBV training also has been shown to decrease the stress hormone Cortisol and increase Serotonin which research confirms also combats aging.

11. How many calories does WBV burn?

Let's look at it another way. Our metabolism is unique to each of us. Metabolism is our body's ability to burn a certain number of calories a day. The higher our metabolism, the more calories a day we can burn every day. WBV training has been shown to increase our resting metabolism. WBV training will also allow you, over time, to burn more calories per day than you did before starting WBV training. This aids in preventing a drop in your metabolism if you wanted to lose weight. In addition it allows you to be able to eat healthy foods and maintain your weight over time.

12. I have osteoporosis. How can WBV help?

Vibration training helps by increasing the strength of your muscles. It's well known that the strength of the bones is influenced by the strength of your muscles. WBV training is a safe and gentle way to achieve these strength gains. For further information, please go to the research section of this site for more information.

13. I have fibromyalgia and was told not to weight train. How does WBV help me?

An effective program for those with fibromyalgia will involve exercises that promote strength, flexibility and endurance. WBV training has been shown to produce greater increases in flexibility over conventional training, with less stress on the joints. In addition, strength gains with vibration training are comparable to regular exercise, except the time to complete exercises is shorter. More importantly, WBV training is be gentle and safe, not putting undue stress on your joints. Consult your physician prior to starting any exercise program if you have fibromyalgia.



14. I have arthritis. Will WBV be helpful?

WBV training has shown to be beneficial for those with arthritis, with the goal of strengthening the muscles around the joints in keeping the area stabilized and to prevent further injury. WBV training minimizes stress on the joints, making it the ideal training solution. Various health professionals have incorporated WBV into their treatment plans. Once you are screened by your health professional, they will be able to recommend the appropriate vibration training regimen for your particular condition.

15. How often should I use it to see results?

Use of WBV is similar to regular training in some aspects. How often you use it will depend on what you are hoping to accomplish. For those looking for strength gains, we recommend approximately 5 times per week. Others may use it every day for recovery and warming up and cooling down. Due to its ability to increase circulation, lactic acid is quickly cleared, leading to faster recovery.

In many aspects, WBV training is more efficient than conventional training. With regular weight training, muscles undergo some micro tears through the stresses placed on them. This leads to a recovery time of 48 hours before engaging in that activity again. Vibration training minimizes these micro tears. Combine this with the increased circulation and there is only a 24-hour recovery period before you can effectively use the same muscle group.

16. What is your warranty and is there a weight limit for your machine?

Our warranty covers all defective parts for a period of one year. The weight limit is 275 lbs.

17. I have heard about other forms of WBV equipment on the market, how does your compare?

	Vertical Equipment	Our Pivotal Equipment
Date of Inception:	1999	1995

Frequency:	30 Hz - 60 Hz	5 Hz - 20 Hz
------------	---------------	--------------

Note: Although sales reps for vertical equipment are stating it is dangerous to go below 30 Hz, 16 of their 24 research listings showed improved performance while training below 30 Hz. In fact there is support for not training above 50 Hz as it may impede performance.

Vibration Pattern:	3 Planes (unproven)	1 Plane-proven/functional
--------------------	---------------------	---------------------------

Note: Vertical manufacturers have yet to demonstrate that the additional 2 planes of motion they offer produce any significant training value. As an end load to the limb is required for activation of the stretch reflex, side-to-side and forward-backward vibration would seem to provide the user with no additional value. Research has shown the teeter-totter motion of our equipment is truly a functional and effective way to stimulate muscle activity.

Crossover Pattern:	NO	YES- simulates walking
--------------------	----	------------------------

Note: It is the unique pivotal motion that contributes to its effectiveness. The pivotal motion forces the pelvis into the same motion thus functionally simulating the natural walking and running pattern.

Head/Eyes Affected:	YES (forces knee flexion)	NO
---------------------	---------------------------	----

The pivotal motion forces the pelvis into the motion that allows for the spine to stabilize the



Whole Body Vibration FAQ's (cont.)

head and eyes. Since the vertical equipment does not provide for this functionally stabilizing motion, it is their vertical motion that affects the strong vibration in the head and eyes. This requires the user into a forced flexed posture at the hips and knees in order to dampen the vertical vibration.

18. Why are there so many different WBV types and frequencies?

There are many conflicting claims about WBV motion types and frequencies. This is because WBV is fairly new to the sports medicine industry. While WBV has been around for 40 years, most of the intensive research has been done in the past 5 years. Here are the facts as we know them.

- 1) Medium to High frequency (32-38HZ) low amplitude (.5 mm) vertical only: This modality appears to increase circulation in the extremities. The user is required to stand for 30 minutes for any benefit.
- 2) High frequency (30-60Hz) medium amplitude Tri-planar (3 directions): This is representative of the Power Plate and Fitvibe. This modality appears to benefit primarily the already fit or gym market. The user is required to hold a specific pose for 30 seconds to one minute, then rest for 30 seconds before the next pose. The poses need to be exact to prevent injury and need proper professional supervision.
- 3) Medium frequency (15-45HZ) medium amplitude (1-3 MM) vertical only. This modality appears to benefit most people in muscle and bone gain. However, there is some concern about long term exposure and spinal compaction.
- 4) Low to medium frequency (5-30hz) higher amplitude (5-15MM) side-to-side. This modality appears to have a balanced benefit in muscle and bone gain. There is less risk of injury to the spine as there is no simultaneous vertical movement. (Each leg is moved alternatively)

19. Who are ideal clients for this form of training?

This form of training is good for everyone including athletes because of the lymphatic stimulation and that this modality is easy on your joints. Additionally, our research has found the following people best benefit from WBV training:

- Seniors/Aging Boomers: Balance, bone density, muscle stimulation, mood improvement through serotonin.
- Busy Executives: The compressed time commitment is ideal for busy professionals who sit most of the day.
- Overweight and embarrassed to go to the gym: Many people are self conscious about their weight and prefer to train in the home. However, when you are overweight, traditional exercise can be painful.
- Travelers: Sitting for long periods frequently can cause blood clots or other problems.



Whole Body Vibration FAQ's (cont.)

- New mothers: Varied WBV postures will focus on strengthening and reducing the hips, thighs and abdomen areas quickly.
- Back patients: WBV training is proven to actually help with many lower back issues.

20. What are ideal locations for WBV training?

- Home use
- Chiropractic offices
- Corporate break rooms
- Spas
- Health food stores
- Massage therapy offices
- Physical therapy offices
- Retreat centers/ Seminars

21. Here is a review of the benefits of WBV training:

- 10-20 minute time commitment per session.
- Muscle toning in legs, arms and abdomen.
- Core muscle conditioning and strengthening.
- Muscle stretching. (Reduced injury if used as a warm up)
- Improved digestion.
- Lymphatic drainage and microcirculation improvement. This detoxifies and reduces congestion in your fat and cellulite, resulting in inches lost!
- Increased serotonin production, which helps combat Seasonal Affective Disorders.

- Enhanced endorphin release generating that feel-good sensation which follows a traditional work out (runners high).
- Increased production of Growth Hormones and all of its anti-aging benefits. (361%)
- Decreased production of Serum Cortisol (The body's stress hormone) (32%).
- Enhanced bone density and bone building as the exercise is weight bearing.
- Body reshaping.



Whole Body Vibration FAQ's (cont.)

- Reduces pain and disability associated with osteoarthritis.
- Improves balance and coordination.
- Eliminates stress on joints, ligaments and tendons when compared to traditional exercise.
- Reduces acute and chronic lower back pain due to muscle strain and core muscle strengthening.
- Improves mobility due to the natural loco motor crossover pattern of the vibration.