



V *force*™
by Dynatronics

Research has shown this exciting new treatment to be effective for:

- Muscle strengthening
- Enhancing range-of-motion
- Increasing flexibility
- Relieving pain
- Relaxing muscle spasms
- Improving balance and proprioception

Whole-Body Vibration

A Significant Advancement in Rehabilitation

Whole-Body Vibration

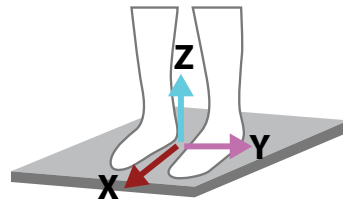
As a therapy, whole-body vibration (WBV) was explored by Russian scientist Vladimir Nazarov who tested vibration on astronauts in an effort to decrease the loss of muscle and bone mass in space. Astronauts in space lose their muscular strength very quickly and the decrease of bone density increases the risk of bone fractures. Before their departure, astronauts were subjected to WBV training sessions so that the density of their bones would increase and their muscular strength would rise.

Vibration Therapy is becoming increasingly popular. Initially, vibration training was mainly used in the fitness industry, but Vibration Therapy is expanding quickly into all areas of physical medicine and rehabilitation.



Vibration Parameters

Amplitude – While all vibration devices produce vibration in three different directions – front and back (x), sideways (y), and up and down (z), the most safe and effective platforms produce sufficient vertical vibration while limiting vibration in the horizontal plane.



Frequency - Frequency (Hz) is equally important. Research shows that the body responds positively to vibration in the 30-50 Hz range.

How It Works

Platform oscillates in the vertical plane 30-50 times per second.

Mechanoreceptor Muscle Spindles send signals to the brain causing muscles to contract at the same rate the platform is vibrating.

Mechanoreceptor Golgi Tendon Organs (GTO) send signals to the brain causing the muscles to relax at the rate of vibration.

WBV results in nearly 100% motor-unit recruitment verses an average of 40% for normal voluntary exercise.

Improved muscle strengthening, range-of-motion, flexibility, and balance & proprioception and reduced pain and muscle spasms.

The rapid contraction and relaxation of muscles works as a pump to increase both circulation and lymphatic drainage.

Why Vforce?

- Reimbursable
- Increased referrals
- Accelerated outcomes
- Cost effective
- Minimum space required
- Easy to use
- Excellent patient compliance

EMG Testing Confirms Efficacy of Vibration

More Than a Ten-Fold Increase in Motor-Unit Recruitment!



Balance and Fall Prevention

**Save
\$4,500**

	<u>Hamstring</u>	<u>Peroneal</u>	<u>Gastrocnemius</u>
No Vibration	60.77 μ V	42.18 μ V	18.18 μ V
Vibration	1,582.27 μ V	1,947.04 μ V	936.87 μ V
Wobble Board	129.21 μ V	207.68 μ V	555.29 μ V

NOTE: EMG readings (microvolts) reflect the mean over a 30 second period at 30 Hz.



Knee Rehab

Vforce Qualifies for ADA Tax Credit

Since the Dynatron Vforce is wheelchair accessible, patients with disabilities are able to benefit from vibration on lower extremities. Research shows patients benefit from increased motor-unit recruitment and muscle firing. This rapid contraction and relaxation of muscles also results in significant increases in circulation and lymphatic drainage.

Dynatron® Vforce	
List Price	\$6,995
Less: IRS Sec 44 (ADA) Tax Credit	-\$3,372
Less: IRS Sec 179 Tax Benefit (assuming 35% tax rate)	-\$1,268
Net After-Tax Price	\$2,355



Lower Extremity Exercise and Circulation

What Clinicians Are Saying...

"We see dramatic improvements in our post-op knee patients. The edema resolves faster, range-of-motion improves earlier, and we see better joint stability in the first phases of the rehabilitation process. It has also been an extremely effective tool for scapular stabilization, ankle rehab, and neuromuscular reeducation. Vforce is an exciting advancement in rehabilitation."

- J. Stephen Guffey, PT, Ed. D.

"Right away we were impressed with the way we were able to increase flexibility in our injured patients, particularly low back patients. We soon discovered that it was also effective in enhancing proprioception and balance in all patients. The longer we had the Vforce, the more creative we became; using it in new and imaginative ways, always leading to an impressive outcome."

- Jeffery G. Norman, D.C.

Why Dual Motors?

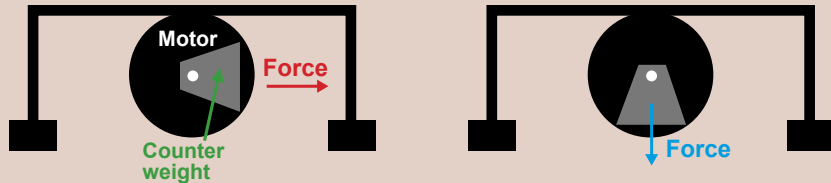
Research has shown that significant vertical amplitude (2-6 mm) is required to generate adequate "loading" of both the muscular and skeletal systems. Only synchronized dual motors, as featured in Vforce, are capable of generating adequate vertical amplitude while limiting the ineffective horizontal vibrations generated by single-motor units.

	<u>Hamstring</u>	<u>Peroneal</u>	<u>Gastrocnemius</u>
Single-Motor Vibration	277.51 μ V	241.44 μ V	143.78 μ V
Dual-Motor Vibration	1,754.63 μ V	1,922.75 μ V	1,476.88 μ V

Note: Static squat at 70° of knee flexion. EMG readings (microvolts) reflect the mean over a 30 second period at 30 Hz.

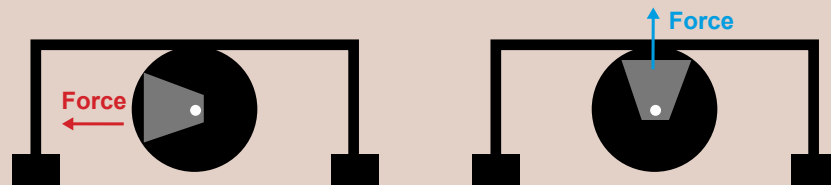
Single Motor

Competitor's Units - vertical amplitude: 1-2mm



Meeting no resistance, significant unwanted vibrations are created in the horizontal plane.

Energy travels downward meeting structural resistance.

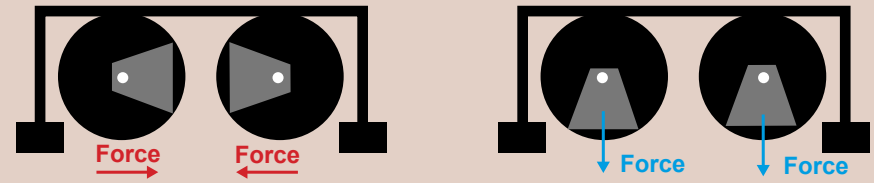


Meeting no resistance, significant unwanted vibrations are created in the horizontal plane.

Energy travels upward meeting gravitational and structural resistance.

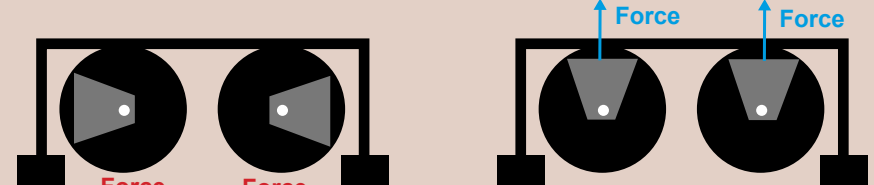
Dual Motor

Vforce by Dynatronics - vertical amplitude: 2-6mm



Energy generated from equal but opposite horizontal forces results in zero net force.

Significantly greater energy generated by dual motors travels downward, applying greater force against structural resistance.



Energy generated from equal but opposite horizontal forces results in zero net force.

Significantly greater energy generated by dual motors travels upward, applying greater force against structural and gravitational resistance.



Contact us today for a free in-office trial.

Vforce is covered by a standard 2-yr warranty.
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