

Vibration Therapy EDS Q and A

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Q: What is Vibration Therapy?

A: Vibration Therapy is defined as the performance of various exercises (strengthening, stretching, balance, range of motion etc.) while standing, sitting, or pushing into an oscillating platform. As opposed to its counterpart, “*Vibration Training*”, Vibration Therapy is utilized to provide a therapeutic value as opposed to a fitness or aesthetic value. Obviously, there is a gray area with these two uses so many times the same exercises are done with both goals in mind.

Q: What are the origins of Vibration Therapy?

A: The ideas upon which this technique was built date back to the late 1960’s, where Russian cosmonauts used vibration technology to prevent the loss of bone and muscle in space. After the fall of the Berlin Wall, it proliferated to Europe where the first platforms were developed and used to treat osteoporosis and age-related muscle loss.

Q: Is it safe?

A: There are over 300 studies on Vibration Therapy (under the category “whole body vibration”) and not one has reported any serious side effects. Studies have included elderly populations, children, and severely disabled individuals (spinal cord injury, stroke, Parkinson’s disease, and multiple sclerosis for example).

Incidentally, I have used it for 5 years now in my PT practice with no major problems.

Q: Are there any people that CANNOT use Vibration Therapy

A: Yes. Contraindications include:

- Acute Thrombosis (within the past 6 months)
- Bone Tumors
- Fresh Fracture
- Recent Implants (new joints, pins, screws etc.)
- Gallstones, Kidney or Bladder Stones

- Neoplastic disease of the spine (i.e. multiple myeloma and invasion of the spine, metastasis to the spine, osteosarcoma of a long bone, etc.).
- Pregnancy
- Pacemaker
- Severe Cardiovascular Disease
- Epilepsy
- Severe Diabetes
- Active Migraine headaches

Q: How does it work?

A: There are many ways in which Vibration Therapy can influence the body. Several of these ways are shared with other modalities. There are two ways however, that makes vibration technology stand out from other approaches. They are:

- The movement of the platform occurs very fast and over short distances. This stimulus causes the muscles to safely stretch very quickly. As a result, like when a doctor hits your knee with a reflex hammer, the muscles involuntarily contract in response to the platform’s movement. The result being increased muscle fiber recruitment and safe and rapid strength gains. All of this occurs directly through the nervous system so the brain “learns” much quicker. No other technique can influence the body in this manner without an elevated risk of injury.
- The movement of the platform simulates the forces of gravity on the body. In fact, it is a bit stronger than gravity. This makes your muscles rapidly learn how to efficiently counter the forces of gravity. The training effect is directly applicable to activities of daily living. After all, most issues ultimately cause a person to struggle against gravity and it is this struggle that causes injury, overuse, and pain to persist.

Up until now, the only way to influence the force of gravity on a person has been to increase the person’s mass with weights (dumbbells, barbells). This obviously comes with increased risk of injury. With Vibration Therapy, it is done in a very unique manner and has proven much safer so far.

Q: How does Vibration Therapy help with EDS?

A: There are several ways in which Vibration Therapy can benefit someone with EDS. They are:

- By **improving joint stability** – The result of joint hypermobility is poor communication between the ligaments that stabilize the joints and the surrounding muscles and nerves. This loss of communication (otherwise referred to as reduced “proprioception”) results in excessive joint motion

and reduced muscle tone. The end product of this is repeated trauma to the tissues and joints leading to tendonitis, tendon tears, torn cartilage and eventually osteoarthritic changes in the joints.

- **By increasing circulation** – The increased muscle activity as well as the circulation changes caused by the vibration of the tissue, helps to increase local circulation to the joints, skin, and muscle. This serves to both expedite healing and prevent injury.
- **By increasing communication** (“proprioception”) – Through the increased stimulation of the body in general (in other words...”shaking”) and the enhanced muscle activity caused by Vibration Therapy, it helps improve the information pathways between the body and the brain. This helps to increase muscle tone and more effectively stabilize joints during motion. It also increases energy efficiency and shock absorption.
- **By reducing pain** – Vibration Therapy helps to “close the gate” on pain signals by overriding the normal pain information pathways with other types of information. Much like rubbing your elbow after you bang it against something, with prolonged exposure, vibration therapy can effectively permanently close down a significant number of pain pathways.

Q: How often does it need to be done?

A: Depending on your level of health, the injuries you may have, and your level of conditioning, this number can vary significantly. On average, a Vibration Therapy session can require anywhere from 5-15 minutes of your time, 2-3x per week. Comparatively, this is quite brief.

Q: Where can one try Vibration Therapy?

A: As a Physical Therapist, I use Vibration Therapy as part of treatment. If treatment is required it may be reimbursed through insurance. Call Equilibrium Physical Therapy for further detail (www.equilibriumpt.com). For those looking to use it outside of Physical Therapy, daily and weekly memberships are available at our in-house fitness and wellness studio, Amplitude Vibration Studio (www.amplitudevibration.com). Everyone can try it for free.