

Reversing Osteoporosis Naturally with Whole Body Vibration

Submitted by HeatherP on April 21, 2010

Bone health is rapidly becoming one of the most acute health issues in the US. The incidence of osteoporosis has increased dramatically in recent years. Consider these startling facts:

- Osteoporosis affects an estimated 10 million Americans over the age of 50. Some reports say the numbers are as high as 28 million people. It is estimated that, by the year 2020, half of all Americans will have or will develop bone density issues.
- Close to 1.2 million bone fractures in the United States each year are related to osteoporosis.
- An estimated 50,000 people die each year from post-fracture complications.
- As many as one-fifth of people suffering from osteoporosis end up in nursing homes.
- Women are extremely vulnerable to osteoporosis.
- At menopause, bone loss can range from 4% to 8%.
- A common consequence of osteoporosis is the collapsing of the bones in the spine, called compression fractures, but also known as a "dowager hump."

Over the years, I have found that there is a lot of misinformation about osteoporosis. Yet, as chiropractors, we see patients on a daily basis with this disease. As practitioners, who often like to work with our patients on a non-pharmaceutical approach, we often encourage them to include weight-bearing exercises and give some nutritional advice. I believe there is a lot more we can do.

As a living tissue, bones are constantly rebuilt via a two part process. Osteoclasts resorb and remodel bones. Osteoblasts deposit new minerals and collagen back into the bone. These osteoblasts are stimulated by the mechanical pressure exerted on them when weight bearing. And the more weight is being loaded onto a bone, along the trabecular pattern, the more stimulation is generated. Hence, the recommendation of weight bearing exercise.

The current pharmaceutical trend in treating osteoporosis is based on inhibiting the osteoclastic function via medications such as Fosamax. As a chiropractor, I prefer a more holistic way that centers on increasing the osteoblastic function. Stimulating bone formation, while allowing proper remodeling seems to be a more sensible approach.

Fifty years ago, the Russian Space program was facing a startling phenomenon: when subjected to Zero Gravity in outer space, the cosmonauts rapidly lost bone and muscle mass! The way the problem was dealt with was refreshingly simple. If the body responds to loss of gravity this way, why not increase gravity on the bones to recover? The fastest way to accomplish this was to stand on a platform and have this platform move up and down rapidly about 2-4 mm, loading the weight bearing structures with the individuals complete body weight. Thus, Whole Body Vibration (WBV) was born.

With WBV, the body's weight bearing structures are being loaded with the total body weight on every up-stroke and are being unloaded on every down-stroke. Therefore, WBV is often referred to as rapid acceleration/deceleration training.

At a setting of 20 Hz, the platform moves up and down 20 times a second! It serves to note that this type of focused, hi-level, non-traumatic loading of weight bearing structures would be very hard to replicate with exercise! An individual standing on a platform at 20 Hz is experiencing 20 brief, short range impulses onto the femoral heads, pelvis and spine per second with the total body weight! A vast number of research programs all over the world over the last 40 years have shown the beneficial effects of WBV. It is a widely accepted form of treatment that is just now getting publicized here in the US.

After reviewing the literature, I have created a protocol for my patients, which consists of two 10-minute sessions a day at 20 Hz, to be performed in a three day on, one day off cycle.

During this time, the patient is instructed to stand with their legs straight, in order to maximize the transfer of stimulus to the above mentioned osseous structures. The challenge is to find a WBV unit strong enough to transfer the impulses throughout the skeletal structures, yet gentle enough that even lighter weight patients can tolerate it.

The second component of the holistic approach is on the nutritional side. It suffices to say at this point that WBV will stimulate the blood flow into all of the area of bone being stimulated. The purpose of a nutritional support should supply all the necessary components that are synergistically necessary to support the osteoblastic function. Several nutritional recommendations are currently readily available from several of the nutritional companies. Basically, all of these protocols include the following nutrients, but are not limited to:

- A complete multi-vitamin;
- Dietary enzymes for better absorption and utilization;
- Calcium, preferably in the form of an ascorbates, gluconates, citrate or carbonate for optimal absorption;
- Magnesium, to assist calcium absorption and maintain proper balance between them;
- Vitamin K-1;
- Genistein, an isoflavone;
- Omega 3 fatty acids;
- Vitamin D-3.

As chiropractors, we have been at the forefront of holistic healthcare and wellness for over 100 years. The above protocol shall serve as a recommendation for us as a profession to step up again as the leaders in healthcare. By integrating WBV into the chiropractic offices around the country, doctors can safely proclaim that they are addressing one of the most pressing and prevalent health issues of our society in a balancing, supportive way. Isn't it time?

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