



Medicine of Motion

PHYSICAL MEDICINE ASSOCIATES, NAPERVILLE IL



WHAT CAN POWER PLATE DO FOR YOU?

The whole body vibration's low-strain, comfortable, safe, short-duration protocols may allow all populations to achieve strength and power training effects by just standing on the vibrating plate. In less than 30 minutes, three times per week, users can achieve more strength, fat loss, better balance and reflexes, improved bone density and, ultimately, greater health.

Power Plate® Training Builds Bone

Research shows that whole body vibration training may be the answer to osteoporosis: it increases bone mineral density, improves muscles strength and power, and encourages fat loss in post-menopausal women.

This is a summary of a study published in the Journal of Bone and Mineral Research (Vol. 19 (3), 2004)

These research findings present an exciting solution for an ever-worsening problem in our aging population: osteoporosis, loss of postural control and balance, bone fractures from falls often resulting in difficult and incomplete recovery.

As the average age of the western world's population increases, we are faced with an increasing epidemic of osteoporosis. Each year millions of people suffer from fractures due to early bone loss. One in three women and one in eight men will suffer from osteoporosis this year. In the U.S., 2.8 million people (80% of whom are women) suffer from bone loss; 1 million have been diagnosed, while 1.8 million aren't even aware that they are suffering from reduced bone mineral density (BMD).

Initial studies on whole body vibration training showed increases in strength in test subjects. Whole body vibration was shown to cause the body's muscles to contract subconsciously at 30 to 50 times per

second, which can bring about a powerful training effect even while simply standing on the plate.

The 90 participants - postmenopausal women ranging in age from 58 to 70 - were divided into three research groups.

- The whole body vibration group trained 3 times per week on a Power Plate® machine, for no more than 30 minutes per session. They performed static and dynamic exercises for the upper leg and hip area, such as squats (one of the movements that allows you to sit down in a chair) and lunges.
- The conventional weight training group trained 3 times per week, for about one hour per session, including a separate warm-up and cool-down.
- The control group did no train at all.

The results:

The whole body vibration group got positive results: strength increased as much as 16% in upper leg muscles, while bone density at the hip increased by 1.5%. In addition, the whole body vibration group showed an improvement in postural control and balance, increased muscle strength and lean mass while losing body fat and fat mass. The conventionally trained subjects were able to slow the rate of

bone loss, which is consistent with previous published studies on weight training and bone loss. The control group subjects continued to lose bone mineral density at the average rate.

Conclusion:

Whole body vibration training :

- increases bone mineral density
- is a viable solution to reverse bone loss and to eliminate osteoporosis
- is an accessible training tool to help many populations
- prevent falls and fractures
- increases strength
- improves balance and equilibrium
- improves posture
- stimulates fat loss
- improves health



Call us today to begin Power Plate training at Physical Medicine Associates

630.428.4300