Whole-Body Vibration exercise focus of osteoporosis group meeting

The National Osteoporosis Foundation North Dallas Support Group is dedicated to providing accurate, timely information and support to people affected by osteoporosis (a bone-weakening disease). At their August 13 Richardson meeting, speaker Andjelka Pavlovic, a Texas Women’s University doctoral candidate in exercise physiology, presented the results of a recent study of the effects of Whole-Body Vibration (WBV) on bone density.

Pavlovic described WBV as an alternative method to traditional exercise that has shown to increase muscular strength, performance, and bone density. Participants generally stand on a platform that transmits vibrations from the feet throughout the body. These vibrations lead to muscular contractions and place a slightly higher load on the skeleton.

Pavlovic’s study used a sample pool of 27 sedentary women, aged around 62 years of age, who were randomly placed into one of three groups – control, low-intensity and high-intensity [vibrations]. Bone mineral density, muscular strength, and balance were measured. At the conclusion of this comparatively small study, Pavlovic said there were no statistically significant findings. However, the high-intensity group demonstrated increases in hip and lower back BMD of 3.6% and 4.8% which may be clinically significant.

Pavlovic said that other randomized controlled trials on WBV to date “observed either an increase or maintenance with no declines in BMD [bone mineral density]. Perhaps that in itself is of clinical significance due to the age-related/inevitable decrease in bone mineral density.”

As part of her comprehensive presentation, Pavlovic referred to the American College of Sports Medicine exercise guidelines for those with osteoporosis or low bone density. The ACSM recommendations include weight-bearing aerobic activities 3 – 5 days per week and resistance exercises 2 – 3 days per week, with the intensity and duration depending on your fitness level. Pavlovic added, “Try to exercise on most days of the week, even if that means going for a 15 minute walk instead of watching TV!” And she listed things to avoid:

- Pain during exercise
- Exercises that involve explosive movements
- High-impact loading
- Exercises that cause twisting, bending, or compression of the spine
- Bed rest
- Sedentary lifestyle
Quick Stats: According to the National Osteoporosis Foundation, 10 million Americans are estimated to have osteoporosis; 34 million more have low bone mass. 85% of adult bone mass is acquired by age 18 in girls, and age 20 in boys. 25 billion dollars is the estimated cost of osteoporosis-related fractures by 2025.

WHO TO CALL
The NOF North Dallas Support Group, which is affiliated with of the National Osteoporosis Foundation, [www.nof.org](http://www.nof.org), but run by local volunteers, meets from 10 to 11 a.m. on the second Saturday of each month at Methodist Richardson Medical Plaza 1, 403 W. Campbell Road, Richardson. The group’s next meeting: September 10, 10-11 a.m.
All are welcome to attend.
For more information call Jennie, 972-965-1467.