Osteoporosis is “a disease characterized by low bone mass and structural deterioration of bone tissue leading to bone fragility and an increased susceptibility to fractures, especially of the hip, spine and wrist, although any bone can be affected” (National Osteoporosis Foundation [NOF], 2009) The NOF (2009) estimates that 44 million Americans have, or are at risk for, osteoporosis. In 2005, osteoporosis-related fractures cost an estimated $19 billion. An average of 24% of patients with hip
fractures aged 50 and over die in the year following their fracture (NOF, 2009). Our overarching goal is to prevent and reduce the risk of falls and fractures and to improve the quality of life for persons with low bone mass or osteoporosis. Further, we expect to provide evidence to foster clinical use of optimal exercise strategies of persons with low bone mass or osteoporosis. Our projects are methodological, descriptive, correlational and interventional. In addition to ongoing precision studies of our tests and measures, our objectives are to: 1) characterize and describe physical performance changes associated with age and bone loss; 2) determine the relationship of posture, muscle performance, balance, gait speed, fitness and fear of falling in women with increased fall risk and higher fracture risk; 3) validate use of the BESTest (Horak FB, Wrisley DM, Frank J., Phys Ther, 2009;89(5):484-498) with persons with fall risk and fracture risk associated with low bone mass; 4) determine the effect of a targeted home-based exercise program in improving physical performance and reducing fall risk in women with low bone mass or osteoporosis.

Participating Sites

Drexel University Physical Therapy Services

Publications


Presentations


Contact Us

If you are interested in learning more about the Osteoporosis Education and Exercise Projects, please contact Dr. Sue Smith at 215.762.1758 or sue.smith@drexel.edu.