

Which Exercises Best Strengthen Your Bones?

Bone density diminishes with age, with bones usually at their densest at around age 30. Bones tend to become more fragile and the risk of fractures increases around age 50, due in large part to hormonal changes in both women and men. Appropriate exercise has been shown to play a significant role in both building strong bones when we are young and in keeping bones strong as we age.

“Bone-loading” is weight-bearing activity that stimulates new bone growth. The slow and controlled strength and resistance training and weight bearing exercises that are basic to Pilates provide excellent and safe bone-loading activity. In addition to strengthening bones, Pilates includes static stretching (holding still in a position to lengthen a muscle), and exercises that improve flexibility, coordination, and balance, all of which reduce the likelihood of dangerous falls. Aging and inactivity also typically result in the loss of muscle mass and in the stiffening of tendons. Stretching your joints and muscles combined with resistance training and agility exercises, all of which are typically included in a Pilates session, result in improved range of motion and increased strength and muscle mass.

The author of this article, for example, is a senior who has osteoporosis, osteoarthritis in one hip, and degenerative disc disease in her lumbar spine. She credits her good genes and her three-times-a-week Pilates practice for her ability to remain active and for the improvement in her bone density found in a recent test (a painless, non-invasive scan that measures bone density in several parts of the body).

Any form of moderate exercise can have value, but some common activities are *not* recommended for building bone because they increase the risk of fractures. Included in this category are high impact activities such as jumping, repetitive impact activities like running or jogging, and bending and twisting as in golf, tennis, and bowling. Simply holding a yoga pose can increase the risk for compression fractures of the fragile vertebrae in the spine. And non weight bearing activities such as swimming and cycling do not contribute significantly to improved bone density.

The CDC recommendation for adults of at least two and a half hours a week of moderate to vigorous physical activity was distilled from a great deal of research that demonstrated the value of exercise in lowering the risk of developing a wide variety of conditions, including cognitive decline, stroke, heart attack, type two diabetes, and cancer of the breast, lung, prostate, endometrium, and colon. Your genes set the tone for your bone density at birth, but your nutritional status, microbiome, hormone levels, chronic illnesses, vitamins, supplements, medications, smoking, and alcohol intake all can impact your bone health. If you choose Pilates as your regular form of exercise you are likely to get many benefits ...including the bonus of stronger bones.