

National Osteoporosis Foundation Exercise Guidelines - Released Summer 2014

There are two types of exercises that are important for building and maintaining bone density: **weight-bearing** and **muscle-strengthening** exercises.

Weight-bearing Exercises

These exercises include activities that make you move against gravity while staying upright. Weight-bearing exercises can be **high-impact** or **low-impact**.

High-impact weight-bearing exercises help build bones and keep them strong. If you have broken a bone due to osteoporosis or are at risk of breaking a bone, you may need to avoid high-impact exercises. If you're not sure, you should check with your healthcare provider.

Examples of high-impact weight-bearing exercises are:

- Dancing
- Doing high-impact aerobics
- Hiking
- Jogging/running
- Jumping Rope
- Stair climbing
- Tennis

Low-impact weight-bearing exercises can also help keep bones strong and are a safe alternative if you cannot do high-impact exercises. Examples of low-impact weight-bearing exercises are:

- Using elliptical training machines
- Doing low-impact aerobics
- Using stair-step machines
- Fast walking on a treadmill or outside

Muscle-Strengthening Exercises

These exercises include activities where you move your body, a weight or some other resistance against gravity. They are also known as resistance exercises and include:

- Lifting weights
- Using elastic exercise bands
- Using weight machines
- Lifting your own body weight
- Functional movements, such as standing and rising up on your toes

Yoga and Pilates can also improve strength, balance and flexibility. However, certain positions may not be safe for people with osteoporosis or those at increased risk of broken bones. For example, exercises that have you bend forward may increase the chance of breaking a bone in the spine. A physical therapist should be able to help you learn which exercises are safe and appropriate for you.

Non-Impact Exercises

Non-impact exercises can help you to improve balance, posture and how well you move in everyday activities. These exercises can also help to increase muscle strength and decrease the risk of falls and broken bones. Some of these exercises include:

- **Balance exercises** that strengthen your legs and test your balance, such as Tai Chi, can decrease your risk of falls.
- **Posture exercises** that improve your posture and reduce rounded or "sloping" shoulders can help you decrease the chance of breaking a bone, especially in the spine.
- **Functional exercises** that improve how well you move can help you with everyday activities and decrease your chance of falling and breaking a bone. For example, if you have trouble getting up from a chair or climbing stairs, you should do these activities as exercises.

A physical therapist can teach you balance, posture and functional exercises.

How Much Exercise Do You Need?

Weight-bearing exercises	30 minutes on most days of the week. Do a 30-minute session or multiple sessions spread out throughout the day. The benefits to your bones are the same.
Muscle-strengthening exercises	Two to three days per week. If you don't have much time for strengthening/resistance training, do small amounts at a time. You can do just one body part each day. For example do arms one day, legs the next and trunk the next. You can also spread these exercises out during your normal day.
Balance, posture and functional exercises	Every day or as often as needed. You may want to focus on one area more than the others. If you have fallen or lose your balance, spend time doing balance exercises. If you are getting rounded shoulders, work more on posture exercises. If you have trouble climbing stairs or getting up from the couch, do more functional exercises. You can also perform these exercises at one time or spread them during your day. Work with a physical therapist to learn the right exercises for you.

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