BHOF
Bone Health & Osteoporosis
FOUNDATION™

251 18th Street South | Suite 630 | Arlington, VA 22202
800-231-4222: tel | www.bonehealthandosteoporosis.org

BONE BASICS

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EXERCISE FOR YOUR BONE HEALTH

EXERCISE REGULARLY

Your muscles get bigger and stronger when you use them. Your bones are similar! They get stronger and denser when you make them work. And "work" for bones means handling impact, the weight of your body or more resistance. Two types of exercises are important for building and maintaining bone density:

1. WEIGHT-BEARING EXERCISES

These exercises include activities that make you move against gravity while being upright. They include both high-impact and low impact activities. Examples of high-impact weightbearing activities are jogging and dancing. See Group 1A in the chart on the right for more examples.

If you can't do high-impact weight-bearing activities, try one of the lower-impact ones listed in Group 1B. Biking and swimming are not weight-bearing exercises, so they don't help your bones as much. If you bike or swim, make sure to also include other activities in your weekly exercise routine that work your bones.

If you haven't been exercising regularly, check with your healthcare provider before starting a new program—particularly if you have health problems such as osteoarthritis, heart disease, diabetes or high blood pressure. Once you have your healthcare provider's approval, start slowly.

EXERCISE CATEGORIES
Based on your risk factors, please consult with your provider what category of exercises may be best for you.

GROUP 1A
HIGH-IMPACT WEIGHT-BEARING EXERCISES

Aerobic Dancing	Soccer
Jumping Rope	Gymnastics
Basketball	Stair Climbing
Lacrosse	Hiking
Dancing	Tennis
Racquet Sports	Jogging or Running
Field Hockey	Volleyball

GROUP 1B
LOW-IMPACT WEIGHT-BEARING EXERCISES

Cross-Country Ski Machines*	Elliptical Training Machines
Low Impact Aerobics	Walking briskly
Downhill & Cross-Country Skiing*	
Stair-Step Machines	

GROUP 2
STRENGTH

Exercise Bands
Weight Machines
Weight Lifting/Resistance Training

GROUP 3
BALANCE, POSTURE AND FUNCTIONAL EXERCISE

Pilates**
Yoga**

*Avoid if you have balance problems or are at risk of falls.
**Avoid forward-bending exercises.

2. MUSCLE-STRENGTHENING EXERCISES

These exercises include activities where you move your body, a weight or some other resistance against gravity. These exercises are also known as resistance exercises. Muscle-strengthening exercises include lifting weights, using elastic exercise bands, using weight machines or lifting your own body weight. Yoga and Pilates are also muscle-strengthening exercises. However, people with osteoporosis and low bone density need to avoid certain positions. For example, if you've already had broken bones in the spine due to osteoporosis, be very careful to avoid activities that require reaching far, bending forward, rapid twisting motions, heavy lifting and any movements that increase your chance of a fall.

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HOW MUCH EXERCISE SHOULD I DO?

Weight-bearing, impact exercises should be done for a total of 30 minutes per day, five to seven days per week. You can do 30 minutes at one time or break it up during the day. For example, 3 sessions of 10 minutes each will provide a similar bone benefit as one 30-minute session. If you can't fit 10 minutes in, spread your exercise throughout the day by taking the stairs or by parking farther from the store or work.

Muscle-strengthening exercises should be done two to three days a week. You should aim for one exercise for each major muscle group for a total of 8-12 exercises. You should do one or two sets of 8 to 10 repetitions for each exercise. If you lift a weight 10 times in a row and stop, you have completed one set of 10 repetitions. If you can't do 8 in a row, the weight is too heavy or resistance is too much. If you can do more than 10 in a row, you should probably increase the weight or resistance. If you have osteoporosis or feel unsteady at times, it may be better to do 10 to 15 repetitions with a lighter weight to begin with.

If you don't have much time for muscle-strengthening, do small amounts at a time. You can do just one body part each day. For example work arms one day, legs the next and trunk the next. You can also spread these exercises out during your normal day. As you get started, your muscles may feel sore for a day or two after you exercise. If the soreness lasts longer, you may be working too hard and need to ease up. Exercises should be done in a pain-free range of motion. If you've broken a bone or have osteoporosis, consider working with a physical therapist (PT) to learn how to exercise safely.

BALANCE, POSTURE AND FUNCTIONAL EXERCISES TO MINIMIZE YOUR RISK OF FALLS AND FRACTURES

BALANCE EXERCISES
Exercises that strengthen your legs and challenge your balance can decrease your risk of falls.

POSTURE EXERCISES
Exercises that improve your posture and reduce rounded or "sloping" shoulders can help you decrease your chance of breaking bones in the spine.

FUNCTIONAL EXERCISES
Exercises that improve how well you move can help you in everyday activities and decrease your risk of falls and broken bones. For example, if you have trouble getting up from a chair or climbing stairs, you should do functional exercises.

A physical therapist can teach you balance, posture and functional exercises. Another good resource for these exercises is BHOF's handbook Boning Up on Osteoporosis: A Guide to Prevention and Treatment. To learn more, visit www.bonehealthandosteoporosis.org or call toll free at 1(800) 231-4222.

RECOMMENDATIONS
A regular exercise program reduces the chance of falling by improving balance, coordination and muscle strength. Exercise has greater benefits for bone health when it is combined with a healthy diet with enough calcium and vitamin D. Some people also need to take an osteoporosis medicine to reduce the chance of breaking a bone.