

## The Role of Calcium

The recommended daily intake of between 400 and 800 IU of vitamin D can also be obtained through your diet in a multivitamin supplement, vitamin D fortified dairy products, egg yolks, saltwater fish, and liver.

The recommended amount should not be exceeded unless prescribed by your healthcare provider as massive doses of vitamin D may be harmful.

### *Recommended Calcium Intakes\**

|                            |                              |
|----------------------------|------------------------------|
| <i>Children, aged 9-18</i> | <i>1,300 mg/day</i>          |
| <i>Adults, 19-50</i>       | <i>1,000 mg/day</i>          |
| <i>Adults, 51 or older</i> | <i>at least 1,200 mg/day</i> |

Source: National Academy of Sciences, 1997

\* You should still strive to meet your recommended daily amount of calcium and vitamin D, even if you are taking a medication for osteoporosis prevention.

## *Exercise for Healthy Bones*

The best exercises for your bones are weight-bearing exercises. These are exercises that force you to work against gravity, such as walking, hiking, jogging, stair climbing, tennis, and dancing.

Some examples of nonweight-bearing exercises are swimming or bicycling. Nonweight-bearing exercises may not improve your bones, but they have excellent cardiovascular and muscle-building benefits.

These exercises can promote good balance and reduce the risk of dangerous falls. The best exercise for you is one that you enjoy and will do regularly for 30 minutes to an hour three to four times per week.

The benefits of exercise do not last indefinitely so an exercise program should become a regular addition to your daily routine for as long as you hope to reap the reward of healthy strong bones.

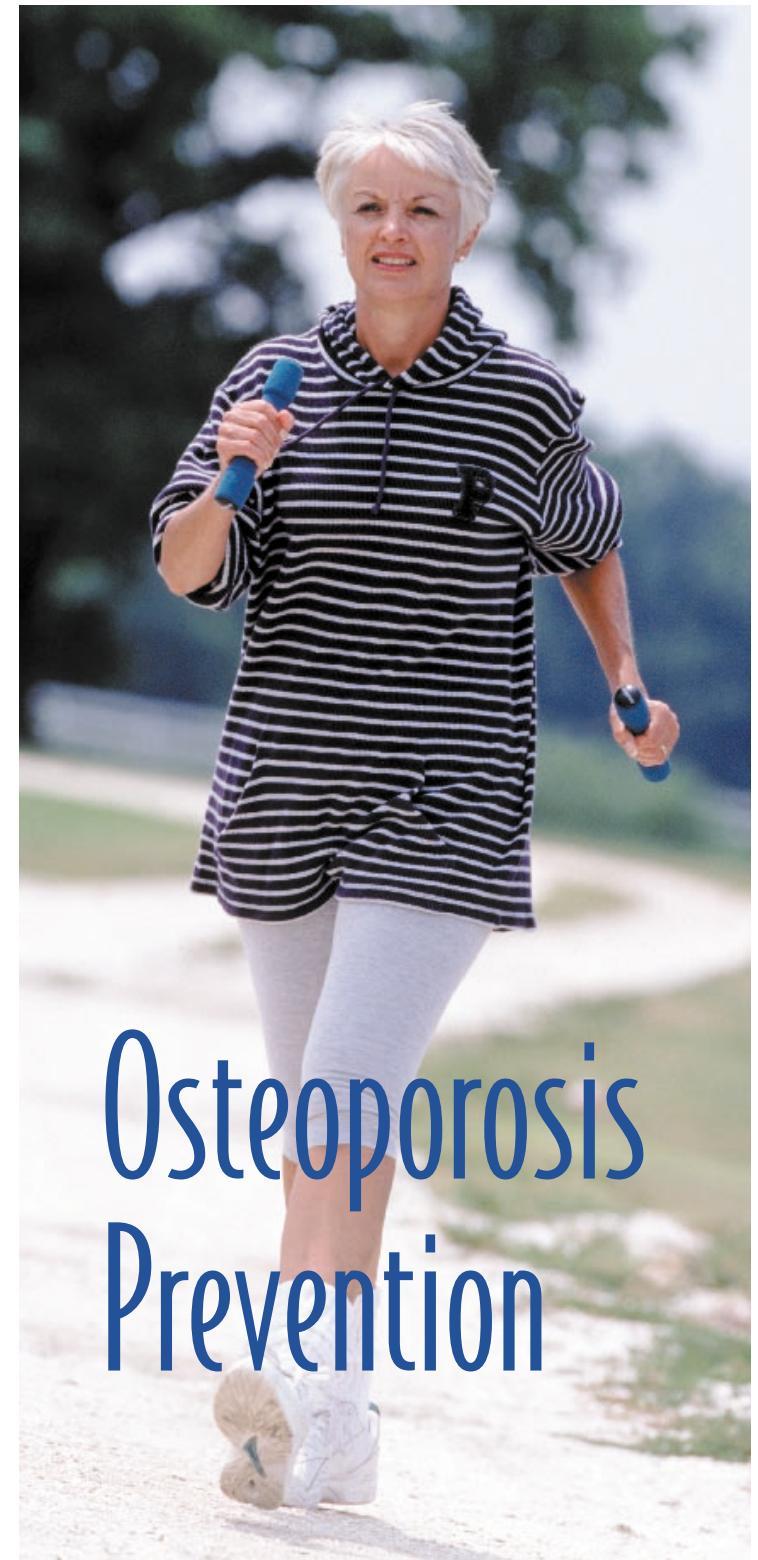
Consult with your healthcare provider before beginning any exercise program.

## Taking Charge of a Prevention Plan

Since osteoporosis can progress undetected for decades until a fracture occurs, early diagnosis is important. Assessing your risk for osteoporosis and determining the density of your bones is one more step in ensuring that you are doing all you can to prevent osteoporosis.

A bone density test is an accurate, painless, noninvasive and fast way to measure your bone mass and to help you, and your healthcare provider, determine whether you need medication to help maintain your bone mass. If you have identified some personal risk factors and are either approaching menopause or already menopausal, a bone density test is an important step in your prevention plan.

Regardless of your age, you can begin right now to prevent osteoporosis from interfering with your future. Bone fractures are not an inevitable part of aging and you play an essential role in protecting your bones.



# Osteoporosis Prevention

*Brochure Developed by*

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*Funded by*

**The Alliance for Better Bone Health**

ACT-BH-4228-1 AC023-16

## It Is Never Too Early or Too Late

More than 25 million Americans suffer from, or are at risk for, the bone-weakening disease called osteoporosis. Osteoporosis literally means "porous bones." Bones that were once strong become fragile. Activities that once were never given a second thought—such as bending over to pick up a newspaper or lifting a light package—can cause bone fractures in susceptible persons.

Left untreated, osteoporosis can progress without pain until a bone breaks. In many cases a bone fracture is the first sign of the disease. The good news is that there are steps you can take to prevent this debilitating disease.

### *Build Strong Bones*

Building strong bones to last a lifetime begins in early childhood. Children can be encouraged to eat foods that are high in calcium to support the development of a strong skeleton. This is perhaps the most important phase of osteoporosis prevention, since bone density and strength are determined in the first 30 years of your life.

### *Risk Factors for Osteoporosis*

There are definite risk factors for osteoporosis. Understanding where you stand in relation to these risk factors is an important part of learning how to prevent this disease.

In general, women are at higher risk for osteoporosis than men. After menopause a woman produces less estrogen, the hormone which is specifically protective of bone. This causes a rapid loss of bone in most women for several years after they stop having periods.

Also, those women who experience very early natural menopause, perhaps in their thirties, or who undergo surgical menopause (removal of the uterus and ovaries), lose the ability to produce estrogen and are at higher risk.

### *Other general risk factors are:*

- Low bone density
- Broken bone from a minor fall or injury after age 45
- Age greater than 65 years
- Low body weight (less than 127 pounds)
- Family history of fractures, especially a maternal history of hip fracture
- Cigarette smoking
- Sedentary lifestyle—little or no exercise
- Excessive alcohol intake (more than 2 drinks per day)
- Use of certain medications, such as anti-convulsants and corticosteroids

### *Preventing Osteoporosis*

Prevention of this disease is very important because, though there are treatments for osteoporosis, there is currently no cure. A comprehensive, lifelong approach to prevention is essential and must include:

- A balanced diet rich in calcium and vitamin D
- A regular program of weight-bearing exercise
- A healthy lifestyle with no smoking and limited alcohol intake
- Preventive health evaluations which may include bone density testing when appropriate
- Medical therapy if indicated

## Medications for Osteoporosis

### *Prevention*

If you are at high risk for developing future fractures, your healthcare provider may suggest a medication to prevent osteoporosis and decrease your risk of fractures.

There are several options for the prevention of osteoporosis:

- Various types and amounts of hormone replacement therapy
- Selective estrogen receptor modulator (SERM)
- Bisphosphonates

Discuss your options for osteoporosis prevention therapy with your healthcare provider.

### *The Role of Calcium*

The body's demand for calcium is greater during certain stages of life.

During childhood and adolescence, for instance, bone is rapidly growing in length, width and density. During pregnancy, the requirement for calcium increases significantly to support fetal growth. In later life, post-menopausal women and older men do not absorb calcium as efficiently as when they were younger.

In order to absorb calcium, your body needs vitamin D. You can get vitamin D naturally from 20 minutes of exposure to sunshine 3 or 4 times per week in most areas of the country. If you live in a northern climate, this may not be possible during the winter months.