

## WHAT IS OSTEOPOROSIS?

Osteoporosis is a disease in which bones become weak and are more likely to fracture or break. It is called a "silent" disease because bone loss often occurs without your knowing it.

Until about age 30, your body forms enough new bone to replace the bone that is naturally broken down by the body (a process called bone turnover). Your highest bone mass (size and thickness) is reached between ages 20 and 25, and it declines after that. After menopause, however, women begin to lose bone at an even faster rate.

Osteoporosis develops when your body cannot replace bone as fast as it is broken down.

# DID YOU KNOW?

Bone loss is a natural part of aging, but there are things that you can do to help keep your bones healthy.

### WHO IS AT RISK FOR OSTEOPOROSIS?

In the United States, 44 million Americans are at risk for osteoporosis. Ten million already have the disease. Women make up 80 percent of cases. Certain risk factors make it more likely that you will develop osteoporosis.

### OSTEOPOROSIS RISK FACTORS

- Family history
- Postmenopausal
- Premenopausal with irregular or no menstrual periods (amenorrhea)
- Thin or small frame
- Caucasian or Asian
- Diet low in calcium and vitamin D
- Little or no exercise
- Cigarette smoking
- Drinking too much alcohol
- Therapy with a steroid (such as prednisone) for any significant length of time

Other factors that can lead to osteoporosis include

- Hormonal conditions (such as hyperparathyroidism, hyperthyroidism, diabetes, hypercortisolism, or hyperprolactinemia)
- Anorexia nervosa (a condition associated with very poor nutrition and abnormal ovarian function)
- Too much exercise or stress that leads to loss of menstrual periods

If you have gone through menopause (even if you have been taking hormone therapy for a long time), have had a fracture (bone break), or are considering treatment for osteoporosis, a bone density test (DXA scan) can help determine your risk of fracture. If you are over 65 and do not have any of these risk factors for osteoporosis, you should still have a bone density test.

Too much bone loss (osteoporosis) can lead to fractures, which can cause serious health risks, including disability and premature death.

# HOW IS OSTEOPOROSIS PREVENTED AND TREATED?

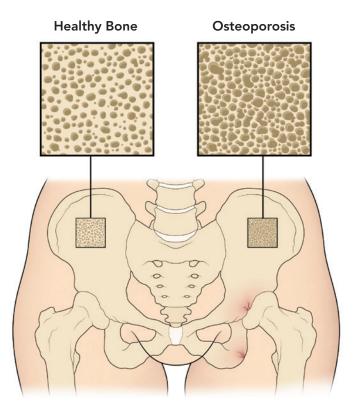
You can take these steps to prevent bone loss:

- Get enough calcium and vitamin D, either through diet or supplements (at least 1,000–1,200 mg of calcium; 400–800 IU of vitamin D daily under age 50 or 800–1,000 IU after age 50)
- Do weight-bearing exercises and stay physically fit
- Avoid smoking
- Don't drink too much alcohol

Even with a healthy lifestyle, however, you may still need additional therapy to protect against bone loss and fractures. Your doctor may need to prescribe medications such as

- Bisphosphonates (alendronate, risedronate, ibandronate, zoledronic acid)
- Raloxifene
- Teriparatide
- Estrogen (when also prescribed for the relief of menopausal symptoms)
- Calcitonin

All of these treatment options are effective, but may have side effects. Talk with your doctor to determine whether you need treatment, and which option is best for you.



## Questions to ask your doctor

- Am I at risk for osteoporosis?
- How often should I have a bone density test?
- Should I take calcium and vitamin D supplements? How much do I need?
- What else can I do to keep my bones strong?
- Should I see an endocrinologist?

#### **RESOURCES**

- Find-an-Endocrinologist: www.hormone.org or call 1-800-HORMONE (1-800-467-6663)
- Hormone Health Network osteoporosis Information: www.hormone.org/osteoporosis/index.cfm
- The National Institutes of Health Osteoporosis and Related Bone Diseases National Resource Center: www.niams.nih.gov/ Health\_Info/Bone/Osteoporosis/overview.asp
- MedlinePlus (National Institutes of Health): www.nlm.nih.gov/medlineplus/osteoporosis.html
- National Osteoporosis Foundation: www.nof.org
- Mayo Clinic: www.mayoclinic.com/health/osteoporosis/ DS00128

#### **EDITORS**

Steven T. Harris, MD Benjamin Leder, MD The Hormone Health Network offers free, online resources based on the most advanced clinical and scientific knowledge from The Endocrine Society (www.endo-society.org). The Network's goal is to move patients from educated to engaged, from informed to active partners in their health care. This fact sheet is also available in Spanish at www.hormone.org/Spanish.

