



What People With Rheumatoid Arthritis Need to Know About Osteoporosis

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What Is Rheumatoid Arthritis?

Rheumatoid arthritis is an autoimmune disease, a disorder in which the body attacks its own healthy cells and tissues. When someone has rheumatoid arthritis, the membranes around his or her joints become inflamed and release enzymes that cause the surrounding cartilage and bone to wear away. In severe cases, other tissues and body organs also can be affected.

Individuals with rheumatoid arthritis often experience pain, swelling, and stiffness in their joints, especially those in the hands and feet. Motion can be limited in the affected joints, curtailing one's ability to accomplish even the most basic everyday tasks. About one-quarter of those with rheumatoid arthritis develop nodules (bumps) that grow under the skin, usually close to the joints. Fatigue, anemia (low red blood cell count), neck pain, and dry eyes and dry mouth also can occur in individuals with the disease.

Scientists estimate that about 1.3 million people in the United States have rheumatoid arthritis.¹ The disease occurs in all racial and ethnic groups, but affects two to three times as many women as men. Rheumatoid arthritis is more commonly found in older individuals, although the disease typically begins in middle age. Children and young adults can also be affected.

What Is Juvenile Arthritis?

Juvenile arthritis occurs in children 16 years of age or younger. Children with severe juvenile arthritis may be candidates for glucocorticoid medication, the use of which has been linked to bone loss in children as well as adults. Physical activity can be challenging in children with juvenile arthritis because it may cause pain. Incorporating physical activities recommended by the child's doctor and a diet rich in calcium and vitamin D is especially important, so that these children can build adequate bone mass and reduce the risk of future fracture.

¹According to the National Arthritis Data Workgroup, the actual number of new cases of rheumatoid arthritis is lower than previous estimates due to changes in the classification for the condition as cited in Helmick CG, Felson DT, Lawrence RC, Gabriel S, Hirsch R, Kwoh CK, et al.; National Arthritis Data Workgroup. Estimates of the prevalence of arthritis and other rheumatic conditions in the United States. Part I. *Arthritis and Rheumatism*, 58(1): 15-25, January 2008.

What Is Osteoporosis?

Osteoporosis is a condition in which the bones become less dense and more likely to fracture. Fractures from osteoporosis can result in significant pain and disability. In the United States, more than 40 million people either already have osteoporosis or are at high risk due to low bone mass.

Risk factors for developing osteoporosis include:

- thinness or small frame
- family history of the disease
- being postmenopausal and particularly having had early menopause
- abnormal absence of menstrual periods (amenorrhea)
- prolonged use of certain medications, such as those used to treat lupus, asthma, thyroid deficiencies, and seizures
- low calcium intake
- lack of physical activity
- smoking
- excessive alcohol intake.

Osteoporosis often can be prevented. It is known as a silent disease because, if undetected, bone loss can progress for many years without symptoms until a fracture occurs. Osteoporosis has been called a childhood disease with old age consequences because building healthy bones in youth helps prevent osteoporosis and fractures later in life. However, it is never too late to adopt new habits for healthy bones.

The Link Between Rheumatoid Arthritis and Osteoporosis

Studies have found an increased risk of bone loss and fracture in individuals with rheumatoid arthritis. People with rheumatoid arthritis are at increased risk for osteoporosis for many reasons. To begin with, the glucocorticoid medications often prescribed for the treatment of rheumatoid arthritis can trigger significant bone loss. In addition, pain and loss of joint function caused by the disease can result in inactivity, further increasing osteoporosis risk. Studies also show that bone loss in rheumatoid arthritis may occur as a direct result of the disease.

The bone loss is most pronounced in areas immediately surrounding the affected joints. Of concern is the fact that women, a group already at increased risk for osteoporosis, are two to three times more likely than men to have rheumatoid arthritis as well.

Osteoporosis Management Strategies

Strategies for preventing and treating osteoporosis in people with rheumatoid arthritis are not significantly different from the strategies for those who do not have the disease.

Nutrition. A well-balanced diet rich in calcium and vitamin D is important for healthy bones. Good sources of calcium include low-fat dairy products; dark green, leafy vegetables; and calcium-fortified foods and beverages. Supplements can help ensure that you get adequate amounts of calcium each day, especially in people with a proven milk allergy. The Institute of Medicine recommends a daily calcium intake of 1,000 mg (milligrams) for men and women up to age 50. Women over age 50 and men over age 70 should increase their intake to 1,200 mg daily.

Vitamin D plays an important role in calcium absorption and bone health. Food sources of vitamin D include egg yolks, saltwater fish, and liver. Many people, especially those who are older, may need vitamin D supplements to achieve the recommended intake of 600 to 800 IU (International Units) each day.

Exercise. Like muscle, bone is living tissue that responds to exercise by becoming stronger. The best activity for your bones is weight-bearing exercise that forces you to work against gravity. Some examples include walking, climbing stairs, weight training, and dancing.

Exercising can be challenging for people with rheumatoid arthritis, and it needs to be balanced with rest when the disease is active. However, regular exercise, such as walking, can help prevent bone loss and, by enhancing balance and flexibility, can reduce the likelihood of falling and breaking a bone. Exercise is also important for preserving joint mobility.

Healthy lifestyle. Smoking is bad for bones as well as the heart and lungs. Women who smoke tend to go through menopause earlier, resulting in earlier reduction in levels of the bone-preserving hormone estrogen and triggering earlier bone loss. In addition, smokers may absorb less calcium from their diets. Alcohol also can have a negative effect on bone health. Those who drink heavily are more prone to bone loss and fracture, because of both poor nutrition and increased risk of falling.

Bone density test. A bone mineral density (BMD) test measures bone density in various parts of the body. This safe and painless test can detect osteoporosis before a fracture occurs and can predict one's chances of fracturing in the future. The BMD test can help determine whether medication should be considered. People with rheumatoid arthritis, particularly those who have been receiving glucocorticoid therapy for 2 months or more, should talk to their doctor about whether a BMD test is appropriate.

Medication. Like rheumatoid arthritis, osteoporosis has no cure. However, medications are available to prevent and treat osteoporosis. Several medications, including bisphosphonates and a parathyroid preparation, are available for people with rheumatoid arthritis who have or are at risk for glucocorticoid-induced osteoporosis.

Resources

For more information on osteoporosis, contact the:
NIH Osteoporosis and Related Bone Diseases National Resource Center
Website: www.bones.nih.gov

For more information on rheumatoid arthritis, contact the:
National Institute of Arthritis and Musculoskeletal and Skin Diseases
Website: www.niams.nih.gov

For Your Information

This fact sheet contains information about medications used to treat the health condition discussed here. When this fact sheet was developed, we included the most up-to-date (accurate) information available. Occasionally, new information on medication is released.

For updates and for any questions about any medications you are taking, please contact the Food and Drug Administration toll free at 888-INFO-FDA (463-6332) or visit its website at www.fda.gov.

For updates and questions about statistics, please contact the Centers for Disease Control and Prevention's National Center for Health Statistics toll free at 800-232-4636 or visit its website at www.cdc.gov/nchs.