



**National Institutes of Health
Osteoporosis and Related
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National Resource Center**

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What People With Lupus Need to Know About Osteoporosis

What Is Lupus?

Lupus is an autoimmune disease, a disorder in which the body attacks its own healthy cells and tissues. As a result, various parts of the body – such as the joints, skin, kidneys, heart, and lungs – can become inflamed and damaged. There are many different kinds of lupus. Systemic lupus erythematosus (SLE) is the form of the disease that is commonly referred to as lupus.

People with lupus can have a wide range of symptoms. Some of the most commonly reported symptoms are fatigue, painful or swollen joints, fever, skin rashes, and kidney problems. Typically, these symptoms come and go. When symptoms are present in a person with the disease, it is known as a *flare*. When symptoms are not present, the disease is said to be in remission.

According to the National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) at the National Institutes of Health, 90 percent of those diagnosed with lupus are women. The disease is three times more common in African American women than in white women. Women of Hispanic, Asian, and Native American descent are also at increased risk. Lupus typically appears in people between the ages of 15 and 45. Unfortunately, there is no cure for the disease.

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. Osteoporosis is a major health threat for an estimated 44 million Americans, 68 percent of whom are women.

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 Lupus and Osteoporosis

Studies have found an increase in bone loss and fracture in individuals with SLE. In fact, women with lupus may be nearly five times more likely than those without the disease to experience a fracture from osteoporosis.

Individuals with lupus are at increased risk for osteoporosis for many reasons. To begin with, the glucocorticoid medications often prescribed to treat SLE can trigger significant bone loss. In addition, pain and fatigue caused by the disease can result in inactivity, further increasing osteoporosis risk. Studies also show that bone loss in lupus may occur as a direct result of the disease. Of concern is the fact that 90 percent of the people affected with lupus are women, a group already at increased risk for osteoporosis.

Osteoporosis Management Strategies

Strategies for the prevention and treatment of osteoporosis in people with lupus 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, increasing to 1,200 mg for those age 50 and older.

Vitamin D plays an important role in calcium absorption and bone health. It is synthesized in the skin through exposure to sunlight. Food sources of vitamin D include egg yolks, saltwater fish, and liver. Many people obtain enough vitamin D naturally, excessive sun exposure can trigger flares in some people with lupus. These individuals may need vitamin D supplements to achieve the recommended intake of 400 to 600 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 lupus who are affected by joint pain and inflammation, muscle pain, and fatigue. However, regular exercise, such as walking, may help prevent bone loss and provide many other health benefits.

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, both because of poor nutrition and an increased risk of falling.

Bone density test: A bone mineral density (BMD) test measures bone density at various parts of the body. This safe and painless test can detect osteoporosis before a fracture occurs and predict one's chances of fracturing in the future. Lupus patients, particularly those receiving glucocorticoid therapy for 2 months or more, should talk to their doctors about whether they might be candidates for a bone density test. The BMD test can help determine whether medication should be considered.

Medication: Like lupus, osteoporosis is a disease with no cure. However, medications are available to prevent and treat osteoporosis. The Food and Drug Administration has approved several medications (alendronate, risedronate, ibandronate, zoledronic acid, raloxifene, calcitonin, teriparatide, and estrogen/hormone therapy) for the prevention and/or treatment of osteoporosis in postmenopausal women. Alendronate and risedronate also are approved for use in men. For people with lupus who develop or may develop glucocorticoid-induced osteoporosis, alendronate has been approved to treat this condition and risedronate has been approved to treat and prevent it.

Resources

For more information on osteoporosis, visit the National Institutes of Health Osteoporosis and Related Bone Diseases ~ National Resource Center Web site at www.niams.nih.gov/bone or call 800-624-2663.

For more information on lupus, visit the National Institute of Arthritis and Musculoskeletal and Skin Diseases Web site at www.niams.nih.gov or call 877-22-NIAMS (a toll-free call).

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For Your Information

This publication contains information about medications used to treat the health condition discussed here. When this fact sheet was printed, 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 at 888-INFO-FDA (888-463-6332, a toll-free call) or visit its Web site 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 Web site at www.cdc.gov/nchs.

Recognizing the National Bone and Joint Decade: 2002-2011