



What People With Lupus Need to Know About Osteoporosis

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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.

We know that many more women than men have lupus. Lupus is two to three times more common in African American women than in Caucasian women and is also more common in women of Hispanic, Asian, and Native American descent. African American and Hispanic women are also more likely to have active disease and serious organ system involvement. In addition, lupus can run in families, but the risk that a child or a brother or sister of a patient will also have lupus is still quite low. It is difficult to estimate how many people in the United States have the disease, because its symptoms vary widely and its onset is often hard to pinpoint. Unfortunately, there is no cure for the disease.

What Is Osteoporosis?

Osteoporosis is a condition in which bones become less dense and more likely to fracture. Fractures from osteoporosis can result in 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 an 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 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 obtain enough vitamin D naturally, but some individuals 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 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, several medications are available for the prevention and/or treatment of osteoporosis, including: bisphosphonates; estrogen agonists/antagonists (also called selective estrogen receptor modulators or SERMS); calcitonin; parathyroid hormone; estrogen therapy; hormone therapy; and a recently approved RANK ligand (RANKL) inhibitor.

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 lupus, 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.