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Bone Up! Easy steps to keep them healthy and strong by Emily Wojcik

We've all read the articles about the risks of osteoporosis, or we've seen the rounded backs and stooped appearance of older women and men who suffer most from the disease. If you are already experiencing some symptoms of thinning bones, there's still much you can do to stay your healthy best and minimize your chance of losing bone mass.

First, the Facts

Osteoporosis is a condition that causes bones to become weak, brittle, and more likely to fracture and break. According to the U.S. Surgeon General's 2004 report, "Bone Health and Osteoporosis," 10 million Americans over age 50 have osteoporosis, while another 34 million are at risk. Each year, there are 1.5 million bone fractures due to osteoporosis.

A study from Northwestern University in Chicago, IL recently found that women with lupus are five times more likely to suffer from bone fractures. But for anyone with lupus, the risk of bone loss can be higher regardless of age, race or gender for two reasons: steroid medications affect the bones, and lupus itself can diminish bone mass.

"The major problem for people with lupus is that many require prednisone or other steroid treatments," says Kenneth Saag, M.D., director of the Center for Education and Research on Therapeutics of Musculoskeletal Disorders at the University of Alabama. "It's a double-edged sword."

Prednisone is a glucocorticoid medication that, according to the National Institutes of Health (NIH), decreases the body's ability to absorb calcium. Glucocorticoids also lower testosterone and estrogen levels, which weakens bones. Men still fare better, however. According to Robert G. Lahita, M.D., Ph.D., Chairman of Medicine at LibertyHealth, Jersey City, NJ, men under age 80 have enough testosterone to overcome osteoporosis.

"The male hormones are very potent protectors," he says. If you've taken prednisone for more than three months, Saag suggests you ask your doctor to test your bone mass with DEXA (dual-energy X-ray absorptiometry) to assess whether there has been any bone loss. Most doctors don't offer the test to younger people because the perceived risk of osteoporosis for that age group is slight, so be proactive and ask if it is right for you. The test is often covered by insurance and can be performed every one to two years.

Strong Moves

Experts agree that doing weight-bearing and resistance exercises regularly is the best way to build and maintain strong bones, so it's important to get active.

"Bones need to be loaded up, like muscles, to maintain their strength," says Saag.

The American College of Sports Medicine has found that those who exercise regularly also fall less often, significantly lowering their risk of fractures.

If you have limited joint movement, some exercise is better than none. Try walking, climbing stairs, or riding a bike (even a stationary one). These all force your body to work against gravity.

It's never too late to start lifting weights. However, you should never begin any exercise program without first talking to your doctor. Your doctor will evaluate your current bone health and can suggest ways you can get exercise in a healthy way. If you are new to exercise, it may be a good idea to consult a personal trainer as well, but be sure to find someone who has knowledge of the appropriate exercises for people with joint disease.

Once you get the green light from your doctor, start easy. Focus on weight-lifting and back-strengthening exercises to improve posture and prevent the osteoporotic "stoop." (Poor posture increases pressure on your spine, which leads to compression fractures.) Start with five or 10 minutes of exercise, and gradually add more minutes as you get stronger-working your way up to 20-25 minutes of training per session, with a day off between workouts.

In her book, **Strong Women, Strong Bones**, author Miriam Nelson, Ph.D., provides suitable workout tips for beginners:

- Use three- to five-pound weights (you can always add weight as you get stronger) for biceps curls, overhead presses, and squats: all are particularly good for building bone density.
- If you're unsure about your balance, brace yourself against a wall and do squats with an exercise ball.
- Try back extensions that are great for strengthening your core muscles: Lie on your stomach and slowly lift your right arm and left leg. Lower and repeat with the alternate arm and leg.

For people who may already suffer from some symptoms of osteoporosis, NIH guidelines recommend avoiding forward-bends from the waist and activities that require twisting at the waist, such as bowling or golf, because these can increase pressure on the spine. Also, high-impact aerobics, like running and basketball, can be harmful for weakened bones and inflamed joints.

More Healthy Bone Tips

For maximum benefit, along with your exercise routine, add a few nutritional changes to your day.

Because medications such as glucocorticoids deplete your body of calcium and vitamin D, it's important to supplement your diet with extra amounts of these important nutrients.

"You need at least 1,000 mg of calcium per day," says Saag. "However, we recommend more like 1,500 mg per day if you're on prednisone therapy."

Look for dark leafy greens, dairy products, and foods that are fortified with calcium. Adding vitamin D is trickier if you have lupus; most people manufacture it naturally through sun exposure, but because ultraviolet rays are known to trigger flares, many people with lupus try to avoid the sun.

"While it's appropriate for lupus patients to stay out of the sun, it makes it more important that they get adequate [vitamin D] levels elsewhere," says Saag. The NIH recommends 200 to 400 IU (International Units) per day, but Saag says, with severe depletion, "We might shoot for 800 to 1,000 IU per day."

Not smoking and limiting your alcohol intake can also help keep your bones strong. With lupus, there are many reasons to quit smoking; in addition to other health concerns, smokers may absorb less calcium from their diets, and women who smoke tend to enter menopause earlier, which results in bone loss. Alcohol not only increases your chances of falling, but also can inhibit the enzymes that convert vitamin D to its active form in the body.

Finally, ask your doctor about a prescription treatment. Alendronate (Fosamax® and Fosamax Plus D®) and risedronate (Actonel®) have recently been approved to treat osteoporosis that results from use of glucocorticoids. Your doctor will be able to tell you if either is appropriate for you. Remember, being aware of the problem, and

taking steps to fix it, are the surest prescription for optimal bone health.

Related Information

- www.niams.nih.gov/bone/hi/osteoporosis_lupus.htm
- www.aafp.org/afp/980600ap/petri.html
- www.hss.edu/Conditions/Osteoporosis

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