

## **Keeping your bones healthy**

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You may be able to ward off some of the outward signs of aging by getting Botox injections, having chemical peels or undergoing cosmetic surgery, but it's what lies under the skin that may be most important to your health in later years.

Osteoporosis, which means porous bone, is a disease characterized by low bone mass and the structural deterioration of bone tissue. This can cause the bones to become fragile and susceptible to fractures.

Osteoporosis is a major health concern for an estimated 44 million Americans, or 50 percent of the people ages 50 and older, according to the National Osteoporosis Foundation.

Although the majority of those affected by this disease are women, it also is seen in men. One out of every two women and one out of every four men older than 50 will have an osteoporosis-related fracture in their lifetime.

Most people reach their peak bone mass, which varies from person to person, by age 30. How much of that mass is retained after age 30, however, is influenced by many different factors, including genetics, diet and exercise.

Genetics definitely play a role in whether you may be more susceptible to osteoporosis. Dr. Tracey Golden, a physician with Magnolia OB/GYN of Myrtle Beach, said it's important that women in particular take a look at the older generations in their family.

Patients might not have a good grasp on their family's history, said Golden, because in older generations, physicians did not really focus on preventative care.

Finding the answers to questions about relatives, particularly female ones, who have lost height, experienced fractures or developed what is known as a "dowager's hump" can provide important clues, Golden said.

Using a woman's annual physical to screen for possible osteoporosis is a good starting point, Golden said. She asks patients whether their posture has changed, they have lost height, or they have experienced any fractures, she said. Recent fractures can raise a red flag, particularly if the incident that caused the break was one that would not have normally resulted in a fracture in a person with healthy bones, she said.

There are many factors that can influence a person's risk for osteoporosis, including gender (women have a greater risk than men) and ethnic background (Caucasians have a greater risk than Asians, and Asians have a greater risk than black people).

Lifestyle factors such as smoking, overindulging in alcohol and having a sedentary lifestyle also play a large role. Eating disorders, advanced age, a small frame, low calcium intake, and a vitamin D deficiency also can influence risk.

For patients who may have symptoms or may be at greater risk, Golden said she recommends a bone-mineral- density test.

The dual-energy X-ray absorptiometry scan, or DEXA scan, is today's established standard for measuring bone-mineral density. The scan is a noninvasive way to measure bone loss and assess a person's risk of developing fractures.

Results of the test are interpreted by a radiologist and are broken down into two scores: the T Score and the Z Score.

The T Score shows the amount of bone you have compared to a young adult of the same gender with peak bone mass. A score above -1 is considered normal. Scores falling between -1 and -2.5 are classified as osteopenia, the first stage of bone loss. Scores below -2.5 are defined as osteoporosis.

The Z Score reflects the amount of bone you have compared with other people in your age and gender group. If it is unusually low or high, further medical tests might be recommended.

Results of the bone density test can help a physician and patient develop a treatment plan, if necessary, to prevent further bone loss.

Although there is no cure for osteoporosis, prescription medications are available to help prevent and/or treat osteoporosis.

Though osteoporosis is treatable, prevention really is the key, Golden said. Diet, particularly the amount of calcium, plays a large role in bone health.

Good sources of calcium are dairy products, such as milk, cheese and yogurt; dark green vegetables; grains; beans; and some fish.

For people older than 50, including women who are postmenopausal, 1,500 milligrams of calcium is the daily recommended amount. For those 25-50 years of age, 1,000 milligrams per day is recommended.

People who do not get adequate sunlight might want to consult their physicians about taking vitamin D supplements.

Exercise also is an important factor in maintaining healthy bones.

Deborah Plitt, program coordinator and personal trainer at Conway Medical Center's Wellness and Fitness Center, reinforced Golden's theme that prevention is essential when it comes to osteoporosis.

"Bone loss accelerates very quickly after menopause," said Plitt. "Exercise can help slow the bone loss.

"Lack of exercise is something that can be changed. The key is weight-bearing exercise, which can slow bone loss and may even encourage bone growth."

Weight-bearing exercises include walking, doing aerobics and using low-impact machines such as stair climbers.

Plitt recommends 20 to 30 minutes of aerobic, weight-bearing exercise at least three days a week. To balance that, she also suggests that people include at least two days of strength training to increase upper body strength. Studies have shown that exercises performed in water, such as swimming or water aerobics, do not convey the same preventive benefits because of the body's buoyancy during these activities.

Plitt said any person who wants to begin an exercise program should first get clearance from a physician.

"Start out easy and just listen to your body," Plitt said.

She also suggested that individuals look for opportunities to be physically active in their daily lives - using the stairs instead of the elevator, walking instead of driving, even gardening.

Being proactive may be the best defense against osteoporosis.

Fast facts

These statistics from the National Osteoporosis Foundation show the effect a fracture can have on a person's long-term health:

One-fourth of those who were ambulatory before their hip fracture will require long-term care afterward.

At six months after a hip fracture, 15 percent of hip-fracture patients can walk across a room unaided

An average of 24 percent of hip-fracture patients ages 50 and older die in the year after their fracture.