A 64-year-old woman visited her doctor complaining of a persistent pain in her lower back. Though the woman suffered from various ailments ranging from diabetes to asthma, her doctor was more concerned about an altogether different symptom: The woman was shrinking. She had lost nearly 4 inches in height in just five years, according to a case study published by online health educator NetCE.

To the doctor, it was the unmistakable hallmark of osteoporosis—a dangerous and debilitating weakening of the bones. The woman’s skeleton was failing her, literally compacting and curving with the weight of her every move. While diminishing stature is a concern with osteoporosis, sufferers are prone to far more dangerous fractures, particularly in the spine, hips and wrists.

Osteoporosis affects millions worldwide, mostly older women. Nearly one-half of all women will experience osteoporosis to some degree in their lives, but men are not free from risk. In total, 10.2 million adults in the United States alone have osteoporosis, with men accounting for about 2 million osteoporosis sufferers, according to the National Osteoporosis Foundation.

A bone density test will pinpoint the condition. Experts recommend routine screenings for women older than 65 and much earlier for those deemed to be at high risk of fracture.

Despite the perception that bone is rigid and permanent, it is actually a living tissue in a continual cycle of deterioration and regrowth. Osteoporosis occurs when the body fails to form enough bone, when too much existing bone is reabsorbed into the body—and sometimes both.

In side-by-side medical images of unhealthy and healthy bone, the weakened samples appear noticeably hollow. It is this hollow appearance that gives the disease its name: “osteo,” Greek for bone, and “poros,” meaning holes or pores.

“For women, loss of bone density in the years right after menopause can be dramatic. A woman can lose 10 to 15 percent of bone density in the first five years after menopause,” says Susan Randall, senior director of science and education for the National Osteoporosis Foundation.

That drop is largely due to decreasing estrogen levels during menopause, which some doctors counter through hormone replacement therapy. In men, falling testosterone levels can similarly lead to osteoporosis. Other causes of bone loss include lack of exercise, certain medications, a family history of osteoporosis, and smoking and/or alcohol use.

Perhaps the best way to fight back against bone loss is by increasing your intake of dietary calcium—one of the most important minerals needed for bones to form—and vitamin D, which aids in the absorption of calcium and is therefore almost as important as calcium itself. This nutritional synergy is why milk, a rich source of calcium, is often fortified with vitamin D.

“The National Osteoporosis Foundation recommends getting most dietary calcium directly from food sources—fruits, vegetables and low-fat dairy, in particular,” Randall says. There are surprising sources of calcium out there. Broccoli rabe, collard greens, fortified orange juice, and even salmon and sardines are all rich in the mineral.

Recommended daily intake of calcium for adults under 50 is 1,000 milligrams a day. For women over 50 and men over 70, it bumps up to 1,200 milligrams.
“The biggest message is that there are things you can do in every stage of life. Build bone in childhood and adolescence, maintain bone strength in middle age, and later increase physical strength, balance and flexibility,” Randall says.

1,200 milligrams per day. For comparison, just 8 ounces of milk—1 cup—can deliver 300 milligrams of calcium, almost one-third of the necessary amount for most adults. “With vitamin D, on the other hand, it can be hard to get through diet alone, so supplements are often necessary,” Randall counsels.

While some doctors prescribe calcium supplements as well, it’s important to note that there are dangers of getting too much calcium. A study in Sweden found that women who consumed more than 1,400 milligrams each day more than doubled their risk of heart disease and had a 40 percent increase in death in general. There is also evidence that calcium supplements can lead to kidney stones.

As a last resort, there are medications known as bisphosphonates that can slow the loss of bone density. Recent studies challenge the effectiveness of such drugs, however, and even raise concern of serious side effects in some patients.

In light of the risks, the National Osteoporosis Foundation recommends working to prevent osteoporosis long before it can ever take hold. “The biggest message is that there are things you can do in every stage of life. Build bone in childhood and adolescence, maintain bone strength in middle age, and later increase physical strength, balance and flexibility,” Randall says.

Increasingly, the key to staving off osteoporosis seems linked to exercise. If you exercise rarely or sporadically, consider stepping up the pace a bit and, of course, always get enough calcium and vitamin D. Your body and your bones will thank you for it later.