



# What People Recovering from Alcoholism Need to Know About Osteoporosis

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## Alcoholism and Recovery

According to the National Institute of Alcohol Abuse and Alcoholism (NIAAA), nearly 14 million Americans – or 1 in 13 adults – abuse alcohol or are alcoholic. Alcoholism is a disease characterized by a dependency on alcohol. Since alcohol affects almost every organ in the body, chronic heavy drinking is associated with many serious health problems, including pancreatitis, liver disease, heart disease, cancer, and osteoporosis. In fact, the NIAAA estimates that the economic costs of alcohol abuse approach \$185 billion per year.

Maintaining sobriety is undoubtedly the most important health goal for an individual recovering from alcoholism. However, attention to other aspects of health, including bone health, can help increase the likelihood of a healthy future, free from the devastating consequences of osteoporosis and fracture.

## Facts About Osteoporosis

Osteoporosis is a condition in which bones become less dense and more likely to fracture. Fractures from osteoporosis can result in significant pain and disability. It is a major health threat for an estimated 44 million American men and women.

Risk factors for developing osteoporosis include:

- being thin or having a small frame
- having a family history of the disease

- for women, being postmenopausal, having an early menopause, or not having menstrual periods (amenorrhea)
- using certain medications, such as glucocorticoids
- not getting enough calcium
- not getting enough physical activity
- smoking
- drinking too much alcohol.

Osteoporosis is a silent disease that can often be prevented. However, if undetected, it can progress for many years without symptoms until a fracture occurs. It has been called “a pediatric disease with geriatric consequences,” because building healthy bones in one’s youth is important to help prevent osteoporosis and fractures later in life.

## **The Alcohol – Osteoporosis Link**

Alcohol negatively impacts bone health for several reasons. To begin with, excessive alcohol interferes with the balance of calcium, an essential nutrient for healthy bones. It also increases parathyroid hormone (PTH) levels, which in turn reduce the body’s calcium reserves. Calcium balance is further disrupted by alcohol’s ability to interfere with the production of vitamin D, a vitamin essential for calcium absorption.

In addition, chronic heavy drinking can cause hormone deficiencies in men and women. Men with alcoholism tend to produce less testosterone, a hormone linked to the production of osteoblasts (the cells that stimulate bone formation). In women, chronic alcohol exposure often produces irregular menstrual cycles, a factor that reduces estrogen levels, increasing osteoporosis risk. Also, cortisol levels tend to be elevated in people with alcoholism. Cortisol is known to decrease bone formation and increase bone breakdown.

Due to the effects of alcohol on balance and gait, people with alcoholism tend to fall more frequently than those without the disorder. Heavy alcohol consumption has been linked to an increase in the risk of fracture, including the most serious kind: hip fracture. Vertebral fractures are also more common in those who abuse alcohol.

## **Osteoporosis Management Strategies**

The most effective strategy for alcohol-induced bone loss is abstinence. People with alcoholism who abstain from drinking tend to have a rapid recovery of osteoblastic (bone building) activity. Some studies have even found that lost bone can be partially restored when alcohol abuse ends.

**Nutrition:** Due to the negative nutritional effects of chronic alcohol use, people recovering from alcoholism should make healthy nutritional habits a top priority. As far as bone health is concerned, a well-balanced diet rich in calcium and vitamin D is critical. Good sources of calcium include low-fat dairy products; dark green, leafy vegetables; and calcium-fortified foods and beverages. Also, supplements can help ensure that the calcium requirement is met each day. 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 over age 50.

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. Some individuals may require vitamin D supplements in order to achieve the recommended intake of 400 to 800 IU (International Units) each day.

**Exercise:** Like muscle, bone is living tissue that responds to exercise by becoming stronger. The best exercise for bones is weight-bearing exercise that forces you to work against gravity. Some examples include walking, climbing stairs, lifting weights, and dancing. Regular exercises 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. In addition, smokers may absorb less calcium from their diets. Studies suggest that in people recovering from alcoholism, smoking cessation may actually enhance abstinence from drinking. Since many suspect that smokers who abuse alcohol tend to be more dependent on nicotine than those who don't, a formal smoking cessation program may be a worthwhile investment for individuals in recovery.

**Bone density test:** Specialized tests known as bone mineral density (BMD) tests measure bone density in various sites of the body. These tests can detect osteoporosis before a fracture occurs and predict one's chances of fracturing in the future. Individuals in recovery are encouraged to talk to their health care providers about whether they might be candidates for a bone density test.

**Medication:** There is no cure for osteoporosis. However, there are medications available to prevent and treat the disease in postmenopausal women and in men.

## **Resources**

**For additional 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](http://www.niams.nih.gov/bone) or call 1-800-624-2663.

**For additional information on alcohol abuse and alcoholism,** visit the National Institute on Alcohol Abuse and Alcoholism Web site at [www.niaaa.nih.gov](http://www.niaaa.nih.gov).

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### **For Your Information**

For updates and for any questions about any medications you are taking, please contact the U.S. Food and Drug Administration at 1-888-INFO-FDA (1-888-463-6332, a toll-free call) or visit their Web site at [www.fda.gov](http://www.fda.gov).