



**Atrium Health**  
Musculoskeletal Institute

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**Fracture Prevention Program**

# What is the Fracture Prevention Program?

## Welcome to the Atrium Health Musculoskeletal Institute Fracture Prevention Program

We will continually strive to assist you in reaching and maintaining bone health to help prevent future fractures. If you are older than 50 and have had a low-energy fracture, or if your orthopedist feels you will benefit from a bone health evaluation, our Fracture Prevention Program coordinator will be contacting you.

The information in this folder will serve as your guide through the journey. It will help you understand more about osteoporosis and how to minimize the risk of another fragility fracture. Your active participation will help you reach your destination. Please keep this folder close as we work together to improve your bone health.

Basic information about maintaining bone health is included in this folder. At no time does this information replace your healthcare provider's advice and orders. If you have questions, please call your healthcare provider.

Please bring this folder with you to all appointments.



# Contact Information, Initial Visit and Helpful Links

## Initial visit

During your first visit, your medical history and information on your recent fracture will be reviewed. Your risks for another fracture will be evaluated and treatment options discussed.

## Questions your healthcare provider may ask

- Have you had a bone density test before? If so, when? Do you have a copy of your records?
- Have you ever been told you have bone loss, osteoporosis or osteopenia?
- Do you take calcium or vitamin D supplements?
- Have you had any other broken bones after age 50?

## Follow-up visits

You will be scheduled for a follow-up visit 2-4 weeks after your initial visit. At that time, your healthcare provider will help evaluate your treatment and continue the planning process of care.

## Helpful links and contact information

National Osteoporosis Foundation: [nof.org](http://nof.org)

National Bone Health Alliance: [nbha.org](http://nbha.org)

Nurse Navigator: **704-446-1334**

Atrium Health Musculoskeletal Institute Orthopedic Trauma,  
a facility of Carolinas Medical Center: **704-446-2060**

**AHMSKIFracturePrevention@AtriumHealth.org**

**[AtriumHealth.org/Orthopedics](http://AtriumHealth.org/Orthopedics)**

# What is Osteoporosis?

Osteoporosis is a disease that weakens the bones. Weakened bones are more likely to fracture (break). Osteoporosis affects men and women, but postmenopausal women are most at risk. To help prevent osteoporosis, you need to exercise and nourish your bones throughout your life.

## Childhood

The body builds the most bone during these years. That's why boys and girls need foods rich in calcium. They also need plenty of exercise. A healthy diet and exercise helps bones grow strong.

## Young adulthood to age 30

During your adulthood, bones become their strongest. This is called peak bone mass. The same good habits from childhood can keep bones healthy in adulthood.

## Age 30 to menopause

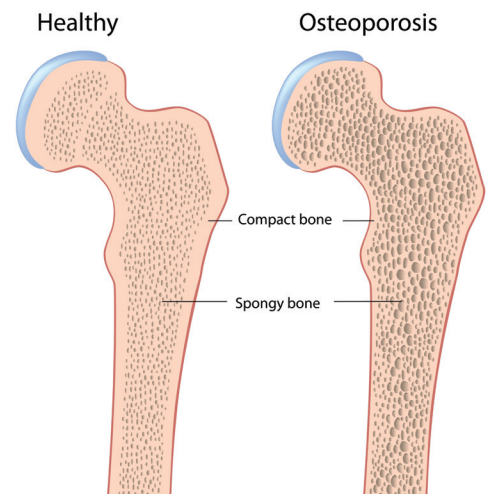
Bone mass declines slightly during these years. Your body makes just enough new bone to maintain peak bone mass. To keep your bones at their peak mass, be sure to exercise and get plenty of calcium.

## After menopause

Menopause is when a woman stops having monthly periods. After menopause, the body makes less estrogen (female hormone). This increases bone loss. At this point, treatment may be needed to reduce the risk for fracture. Exercise and calcium can also help keep your bones strong.

## Later in life

In later years, both men and women need to take extra care of their bones. By this point, the body loses more bone than it makes. If too much bone is lost, you may be at risk for fractures. With age, the quality and quantity of bone declines. You can minimize bone loss by staying active and increasing your calcium intake. Calcium supplements and other osteoporosis treatments do have risks, so talk to your healthcare provider if you have concerns. If you have osteoporosis, you can also learn ways to increase everyday safety.



# Long-Term Effects of Osteoporosis

Have you lost height since your 20s?



## **Fragility fractures**

The most common result of having osteoporosis is a fragility fracture. More than 1.5 million people suffer a fragility fracture each year in the US alone. The severity of the fracture depends on where it is located – the most common locations being the wrist, shoulder, ankle, spine and hip.

## **Spinal curvature**

Even if a fracture does not occur, the spinal bones (vertebrae) may become weak and crush together. As this happens, the spine curves, which can result in back pain, height loss, increased falls and difficulty breathing because there is less space under the ribs.

## **Loss of mobility**

Osteoporotic bones take a longer time to heal than healthy bones. Fragility fractures can have a dramatic effect on your quality of life. With time, medication and physical therapy, patients can preserve bone strength.

# Prevention

With osteoporosis, the best defense is a strong offense. This typically means a healthy diet and exercise.

## Diet and nutrition

Nutrition and osteoporosis are closely linked. Two key nutrients in preventing osteoporosis are calcium and vitamin D. Calcium is a key building block for your bones, while vitamin D allows your bones to absorb the calcium.

### Calcium

Dairy products, such as milk, yogurt and cheese, are good choices for adding calcium to your diet, but other foods are rich in calcium as well. Non-dairy sources of calcium include:

- Fortified juices, cereals and oatmeal
- Salmon and sardines with bones
- Beans and legumes
- Certain nuts, such as almonds
- Dark leafy greens, such as broccoli and bok choy

### Vitamin D

Foods that are rich in vitamin D are important to maintain bone health. Such foods include:

- Fish, such as salmon, tuna and herring
- Milk and yogurt – whole, nonfat, or reducedfat and fortified with vitamin D

### Dental care

It is imperative that you let your dentist know if you are on any osteoporosis medications. Some medications that prevent bone loss may negatively affect healing after certain dental procedures. You and your dentist will want to discuss options based on your medications.

### Exercise

The amount of exercise your bones can handle will vary from person-to-person. Check with your healthcare provider before beginning any exercise regimen.

# Medication

The two categories of medications for treating osteoporosis are:

## **1. Medications to slow bone loss**

These medications decrease naturally occurring bone loss. The goal is to slow bone loss while continuing to make new bone. This treatment prevents worsening bone loss and reduces the risk of fracture.

## **2. Medications to increase bone formation**

These medications increase the rate of bone formation. The goal is to build healthy bone and reduce the risk of breaking bones.

# Physical Exam, Lab Work and Bone Screening

Your healthcare provider will use a combination of the following methods to understand your current bone health:

## Medical history

Your healthcare provider will ask you questions to obtain a thorough and accurate medical history. You will be asked questions relating to any personal history of fracture, family history of fracture and other risk factors of osteoporosis. It is important to let your provider know the medications you have been taking during the last 10 years because some are known to increase an individual's risk for low bone mass and fractures.

## Physical examination

A limited physical exam will be done with emphasis on the spine. Many fragility fractures go unnoticed by patients. Loss of height is sometimes an excellent marker for the presence of vertebral fragility fractures.

## X-rays

Your healthcare provider will perform imaging tests or X-rays to help determine if you have had any fragility fractures of the spine.

## Bone density scan

If the tests listed above indicate a probable loss of bone density, arrangements will be made for you to have a bone density scan if you have not had one in the past year. The bone density test will help your healthcare provider confirm a diagnosis of osteoporosis and document the severity of bone loss. With most types of bone density tests, you can remain fully dressed if there are no metal wires, snaps or zippers on your clothes. A bone density scan usually takes less than 15 minutes and is noninvasive and painless. This means no needles or instruments are placed through the skin or body. A central DXA bone density scan uses very little radiation. You are exposed to 10-15 times more radiation when you fly roundtrip between New York and San Francisco.





### **When your loved one or friend has osteoporosis, you can help.**

Family and friends can help in many ways. Heredity is one of the risk factors of the disease, so accompanying your family member to medical appointments may give you important information about avoiding fragility fractures in your future.

- If possible, come to the initial appointment. This will help you better understand osteoporosis, the different treatment options and how you can help.
- Help your family member or friends by encouraging them to take their medication, exercise and eat as directed by their healthcare provider.
- Help your family member or friends avoid falls.

### **Falls Prevention – Indoors**

- Keep walkways clear of cords, clutter, etc.
- Place items within easy reach.
- For items out of reach, use a long-handled grabber.
- For items in high places, use a step stool with handrails.
- Use nonskid rubber backing on area rugs, bathroom rugs and shower mats.
- Place handrails or grab bars in the shower and by the toilet.
- Place and use handrails on both sides of all stairways.
- On hardwood or uncarpeted floors, avoid using slippery wax.
- Wear only shoes with nonskid soles.
- Use only shower/tub seats with nonskid legs.
- At night, turn on the lights. Place a night-light between your bed and the light switch.
- Keep your phone with you at all times in case you need help.

### **Falls Prevention – Outdoors**

- Use handrails when going up and down stairs or escalators.
- Walk on grass if walkways look slippery.
- Wear boots in the winter and low-heeled shoes. Shoes with rubber soles provide better traction.
- Use an assistive device like a walker or cane, as needed.
- Keep your hands free by wearing a shoulder bag, fanny pack or backpack.
- Keep walkways, porches and driveways free of leaves, snow, trash and clutter.
- In public places, watch out for polished marble or tile floors that may be slippery.

# Patient Financial Services Guidelines

We understand your concerns about the cost of your healthcare. Insurance claims, along with doctor and hospital bills, confuse many people.

## Hospital and doctor bills

The service provided by the Atrium Health Musculoskeletal Institute Fracture Prevention Program is considered a medical necessity by most health insurance providers because of the risk of future fractures. Your insurance will likely cover these expenses. If you are uncertain, please contact your insurance provider to find out which services are covered.

## Health insurance

If you do receive a bill, be sure to forward it to your insurance provider to have that portion paid first. Some insurers provide 100 percent of coverage for these preventive services. Patient responsibility deductibles, co-insurance, co-pays and other balances are due when you receive services.

## Payment choices

- Credit cards
- Check
- Debit cards
- Cash