

THE MAN'S GUIDE TO OSTEOPOROSIS



BHOF
Bone Health & Osteoporosis
FOUNDATION™



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INTRODUCTION

Think osteoporosis is just a women's disease? Think again. While women are more likely to develop osteoporosis, many men are also at risk. While women are more likely to develop osteoporosis than men, many men are at risk too. And as our population ages, even more men will develop osteoporosis. Now is the time to learn your risk factors and take steps to protect and strengthen your bones.

WHAT EXACTLY IS OSTEOPOROSIS? Osteoporosis is a disease that makes your bones weak and more likely to break. When you have osteoporosis, sometimes it doesn't take much to break a bone. Broken bones are also called fractures. A minor fall, a sneeze or even bumping into furniture could cause you to break a bone. Breaking a bone is serious and painful. Men are more likely to break bones from osteoporosis later in life, making it more difficult to recover. In fact, men who break a hip are more likely than women to die within the following year.

Osteoporosis can sneak up on you! You can't feel your bones getting weaker and you may not know you have osteoporosis until you break a bone. That's why it's important to do things now to prevent osteoporosis from developing in the first place. If you already have osteoporosis, there are things you can do to manage the condition and reduce your chance of breaking a bone in the future.

5 STEPS TO BONE HEALTH

Together, the following five steps can improve bone health and help prevent osteoporosis:

1. Get the calcium and vitamin D you need every day.
2. Do regular weight-bearing and muscle-strengthening exercises.
3. Don't smoke and don't drink too much alcohol.
4. Talk to your healthcare provider about your chance of getting osteoporosis, and ask when you should have a bone density test.
5. Take an osteoporosis medicine when it's right for you.

CHAPTER 1

START WITH BONE HEALTHY BEHAVIORS

CALCIUM AND VITAMIN D RECOMMENDATIONS FOR MEN

- Men under age 50 need a total of 1,000 milligrams (mg) of calcium* and 400-800 international units (IU) of vitamin D** daily.
- Men age 50-69 need a total of 1,000 mg of calcium* and 800-1,000 IUs of vitamin D** every day.
- Men age 70 and older need a total of 1,200 mg of calcium* and 800-1,000 IUs of vitamin D** every day.

*This includes the total amount of calcium you get from both foods and supplements.

**Some men may need more vitamin D.

Eating healthy, exercising and not smoking or drinking too much alcohol can help reduce your risk of getting osteoporosis. If you already have the disease, adopting these healthy behaviors can help reduce your chance of breaking a bone. **Get the calcium and vitamin D you need every day**

Everyone knows it's important to eat well, but did you know that the foods you eat can affect your bones?

It's true, calcium and vitamin D play a big role in maintaining strong bones. Many people also don't know how much of these nutrients they need and the best sources to get them.

How can you get enough (but not too much) calcium for your bones?

You can start by eating low-fat or fat-free dairy products, calcium rich vegetables and foods that are fortified with calcium. See the chart on the following page for additional examples of foods that are good for your bones.



WHAT FOODS ARE GOOD FOR YOUR BONES?

DAIRY PRODUCTS

ESTIMATED CALCIUM***

MILK, SKIM, LOW-FAT AND WHOLE, 1 CUP	300 MG
YOGURT, PLAIN, FAT-FREE OR LOW-FAT, 6 OZ.	300 MG
CHEDDAR AND MOZZARELLA CHEESE, 1 OZ.	205 MG
COTTAGE CHEESE, LOW-FAT, ½ CUP	70 MG
PARMESEAN CHEESE, 1 TBSP.	55 MG

FRUITS AND VEGETABLES

COLLARD GREENS, COOKED, 1 CUP	266 MG
KALE, COOKED, 1 CUP	95 MG
BROCCOLI, FRESH, COOKED, 1 CUP	60 MG
ORANGES, 1 WHOLE	50 MG

FISH

SARDINES (CANNED W/BONES), 3 OZ.	325 MG
SALMON (CANNED W/BONES), 3 OZ.	180 MG
SHRIMP, CANNED, 3 OZ.	180 MG

FORTIFIED FOODS

CEREAL WITH ADDED CALCIUM, 1 CUP	100-1,000 MG
SOY MILK, RICE MILK AND ALMOND MILK WITH ADDED CALCIUM, 1 CUP	300 MG
FRUIT JUICE WITH ADDED CALCIUM, 6 OZ.	200-345 MG
WAFFLES WITH ADDED CALCIUM, 2 PIECES	200 MG

***Calcium content listed for most foods is estimated and can vary due to multiple factors.

OSTEOPOROSIS: IT'S NOT JUST A WOMAN'S DISEASE

- Up to one in four men over age 50 will break a bone due to osteoporosis.
- Men older than age 50 are more likely to break a bone due to osteoporosis than they are to get prostate cancer.
- Approximately two million American men already have osteoporosis. About 12 million more are at risk.
- Each year, about 80,000 men will break a hip.

When should you take a calcium supplement?

If you can't reach your daily calcium goals from foods alone. In that case, you may want to consider taking a calcium supplement. Start by estimating how much calcium you get from your diet, and only take enough to make up the difference. Too much calcium is not beneficial and may even be harmful.

How can you get enough vitamin D for your bones?

Many individuals need to take a supplement to get enough vitamin D. If you currently take a multivitamin or calcium supplement, check the label to see if either product

contains vitamin D. Vitamin D supplements can be taken with or without food. While your body needs vitamin D to absorb calcium, you do not need to take vitamin D at the same time as a calcium supplement. Talk to your healthcare provider about how much vitamin D you should take.

In addition to taking supplements, you can get small amounts of vitamin D from fatty fish, such as wild-caught mackerel, salmon and tuna, as well as from fortified milk and other fortified foods. But it is difficult for most people to get enough vitamin D from these sources alone.

Your skin also produces vitamin D when exposed to the sun. However, sunscreen prevents your body from making enough vitamin D from sunlight and it's important to wear sunscreen to reduce your risk of skin cancer. So it's safest to choose other sources for your daily dose of vitamin D.

DO REGULAR WEIGHT-BEARING AND MUSCLE-STRENGTHENING EXERCISES

Two types of exercise help build and protect bone strength: weight-bearing and muscle-strengthening activities.

Weight-bearing exercises make you work against gravity while standing. When you do these exercises, your bones support the weight of your body. These exercises should be done for a total of 30 minutes on most days of the week. Aim for 30 minutes at one time or break it up during the day. Examples include:

- Hiking
- Jogging
- Brisk walking
- Racquet sports
- Basketball
- Soccer

Note: Biking and swimming are great for your heart and lungs but don't strengthen your bones. Be sure to add some weight-bearing activity to your weekly routine. Always check with your healthcare provider before starting a new exercise program.



Muscle-strengthening or resistance exercises are activities where you move your body, a weight or some other resistance against gravity. These exercises should be done two to three days per week. Try to work all of the major muscle groups each week.

Examples include:

- Lifting weights
- Using elastic exercise bands
- Using weight machines
- Lifting your own body weight

A physical therapist (PT) can teach you how to exercise safely to protect your spine and help you prevent broken bones. To see a PT, you will probably need a referral from your healthcare provider.

For more information about bone healthy exercises, visit the BHOE website.

LEARN HOW TO MOVE SAFELY AND PREVENT FALLS

If you've been diagnosed with osteoporosis, some movements—especially bending forward or twisting—can increase your risk of fractures. Work with a physical therapist or exercise specialist to learn safe ways to stay active. You may need to avoid activities that involve excessive twisting motions, such as golf or tennis. You should also avoid bending forward from the waist (for example, toe-touches, abdominal crunches and sit-ups) and stay away from high-impact sports that involve running and jumping.

Each year, about one-third of all persons over the age of 65 will experience a fall. These falls often result in broken bones. Luckily, you can help prevent falls by:

- Doing exercises to strengthen your legs and challenge your balance.
- Getting your hearing and vision checked each year.
- Finding out if any of the medicines you take could affect your balance and increase your risk of falling.
- Taking measures inside and outside your home to reduce your chance of falling.

For more information about moving safely and preventing falls, visit the BHOE website.

CHAPTER 2

WHAT PUTS MEN AT RISK?

RISK FACTORS FOR OSTEOPOROSIS AND BROKEN BONES

Many factors increase a man's risk of developing osteoporosis and broken bones. Here are some things to think about:

- As men age, bone density decreases, especially around age 70.
- If you have a family history of osteoporosis or broken bones, you may be at risk.
- If you are age 50 or older and have broken any bones or lost an inch or more in height, you may already have osteoporosis and not know it.
- If you take certain medicines or have certain medical conditions that can cause bone loss, you may develop osteoporosis.

Talk to your healthcare provider about your risk of developing osteoporosis, what you can do to protect your bones and ask when you should have a bone density test.



LOW HORMONE LEVELS AND OSTEOPOROSIS

Testosterone and estrogen are hormones that help you maintain strong bones. Testosterone levels naturally decline with age. Men receiving androgen deprivation therapy (ADT) for prostate cancer may have even lower levels, increasing bone loss risk. Estrogen is also present in small amounts in men. Low levels of either of these hormones can contribute to bone loss and osteoporosis in men.

CONDITIONS THAT CAN CAUSE BONE LOSS

- AIDS/HIV
- Depression
- Diabetes
- Digestive disorders like celiac disease, Crohn's disease and ulcerative colitis
- Hyperparathyroidism
- Leukemia
- Low estrogen and testosterone levels
- Lymphoma
- Multiple Myeloma
- Multiple sclerosis (MS)
- Organ transplants
- Parkinson's Disease
- Prostate cancer
- Rheumatoid arthritis
- Scoliosis
- Sickle cell disease
- Stroke
- Weight loss and weight loss surgery

MEDICINES THAT CAN CAUSE BONE LOSS

- Aluminum-containing antacids
- Antiseizure medicines (only some) such as Dilantin® or Phenobarbital
- Cancer chemotherapeutic drugs
- Cyclosporin A and FK506 (Tacrolimus)
- (used after organ transplantation)
- Gonadotropin releasing hormone (GnRH) such as Lupron® and Zoladex® (androgen deprivation therapy)
- Heparin
- Methotrexate
- Proton pump inhibitors (PPIs) such as Nexium®, Prevacid® and Prilosec®
- Selective serotonin reuptake inhibitors (SSRIs) such as Lexapro®, Prozac® and Zoloft®
- Steroids (glucocorticoids) such as cortisone and prednisone
- Thiazolidinediones such as Actos® and Avandia®

Always review your medications with your healthcare provider. Never stop taking a prescribed medicine without medical guidance.

For a more complete list, visit the BHO website.

CHAPTER 3

WHAT TESTS CAN HELP YOU LEARN ABOUT YOUR BONE HEALTH?

BONE DENSITY TESTS

A bone density test can diagnose osteoporosis and measure the amount of bone in different parts of the skeleton. BHOH recommends a bone density test of the hip and spine using a central DXA machine to diagnose osteoporosis. DXA stands for dual-energy X-ray absorptiometry. There are several reasons why you might consider having a bone density test. Some of these include:

- You are under the age of 70 and have one or more risk factors for osteoporosis and broken bones
- You are age 70 or older, even without risk factors for osteoporosis and broken bones
- You are receiving androgen deprivation therapy to treat prostate cancer
- You have broken a bone after age 50
- You have a medical condition or take a medicine that is associated with osteoporosis and broken bones
- You are being treated for osteoporosis
- Your healthcare provider is considering prescribing an osteoporosis medicine
- Your healthcare provider suspects that you have a spine fracture due to height loss, back pain or curvature of your spine
- You are taking or are planning to take steroid medicines such as cortisone or prednisone in a daily dose of 5 milligrams.

For more information about bone density testing, visit the BHOH website.

OTHER TESTS YOU MAY NEED

Your doctor may want to run other tests to help predict your risk of osteoporosis and broken bones. These tests may include:

- 25-hydroxyvitamin D test to determine whether your body has enough vitamin D
- Spine x-ray or vertebral fracture assessment (VFA) to look for broken bones in your spine
- FRAX® test to estimate your risk of breaking a bone in the next 10 years
- Blood calcium level and 24-hour urine calcium measurement tests to see how much calcium is in your blood and/or urine
- Thyroid function tests to check for hyperthyroidism
- Parathyroid hormone levels to see if you may be at risk of hyperparathyroidism
- Testosterone levels to see if your levels are too low
- Biochemical markers of bone turnover tests to make estimates about how quickly you are losing bone (examples are CTX and NTX)



CHAPTER 4

HOW IS OSTEOPOROSIS TREATED?

Sometimes, healthy lifestyle choices are not enough to prevent or treat osteoporosis and broken bones. If you have been diagnosed with osteoporosis or are at an increased risk of breaking a bone, your healthcare provider may prescribe an FDA-approved medicine to reduce your chance of breaking a bone. While there is no cure for osteoporosis, treatment can help strengthen bones and reduce the risk of future fractures.

People at high risk of breaking a bone should always speak with their healthcare provider about treatment options. Individuals at the highest risk are those who have already broken bones of the hip or spine (vertebral fractures). Almost all people with these types of broken bones need treatment for osteoporosis. People with other fractures may also need treatment and those who have never broken a bone. On the following page is a chart describing the osteoporosis medicines approved for men.



FDA-APPROVED OSTEOPOROSIS MEDICINES FOR MEN		
GENERIC NAME	BRAND NAME	FORM
ALENDRONATE	Generic alendronate, Fosamax®, Fosamax Plus D® (with 2,800 IU or 5,600 IU of vitamin D3) and Binosto®	Oral (tablet)
RISEDRONATE	Actonel® and Actonel® with Calcium	Oral (tablet)
ZOLEDRONIC ACID	Reclast®	Intravenous (IV)
TERIPARATIDE	Bonsity® and Forteo®	Injection
DENOSUMAB	Prolia®	Injection
ABALOPARATIDE	Tymlos®	Injection

*Medicines are up-to-date as of 2025. Please visit BHOF website for the most detailed and up-to-date information about FDA-approved osteoporosis medicines.

All medicines have benefits and potential side effects. Talk with your healthcare provider about the best treatment for your needs. If you have osteoporosis or an increased chance of breaking a bone, ask your healthcare provider about the available treatment options.

SUMMARY

- If you break a bone, don't assume that it's because you are clumsy. Ask your healthcare provider if it could be osteoporosis.
- If you smoke, stop. This will help your bones, but will also lower your chance of getting cancer, emphysema and heart disease.
- Keep your alcohol intake to no more than two drinks per day. Alcohol damages bones and can lead to accidents and falls which can cause serious injury in people with osteoporosis.
- Ask your healthcare provider when it is time for you to have a bone density test.
- Get enough calcium and vitamin D and take supplements if needed.
- Engage in regular weight-bearing and muscle-strengthening exercises on most days of the week. This benefits all of your body systems, not just your bones.
- If your healthcare provider prescribes a medicine to help strengthen your bones, do not stop taking it without first discussing it with him or her.
- If you need help finding a bone health specialist, BHOF may be able to help you find an experienced osteoporosis healthcare provider.

NOTES





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