

Better Bone Health: A Discussion Guide



Better Bone Health: A Discussion Guide and Personal Action Plan

How to Use This Guide

This guide is designed for you to use during today's presentation, refer to afterward, and share with others. Feel free to write on this to take notes as you develop your own plan of action and set goals that can improve your bone health and help you reduce your chances of falling.

Also, the National Council on Aging (NCOA) and its partners have several online tools that are listed as resources on page 7. These resources reinforce the information covered in today's presentation. Use of these tools and resources may require access to a computer, tablet, laptop, or smartphone.



Bone density and bone health

What is bone density?

- Bone density is a measurement of the amount of minerals present in a specific area of bone. These minerals, primarily calcium and phosphorous, make up 65% of bone tissue and give bone its hardness and rigidity. Bone mineral density (BMD) and bone mass are other terms used for bone density.
- Bone density is an important indicator of how likely bones are to break. It's also valuable in identifying osteopenia and osteoporosis and assessing the effectiveness of treatments that aim to prevent bone loss.¹

What happens to bone density as we get older?

- Bones are made up of living cells and tissue, and they're always growing and changing. Our bodies have a natural mechanism for removing old bone and rebuilding new bone.
- After age 50, we start losing bone faster than we can build it. Due to this accelerated process of bone loss, women can lose up to 20% of their bone density within five to seven years following menopause. Though it is four times more common in women, osteoporosis can affect older men as well. When bone density decreases, the honeycomb-like spaces within the bone become larger, and the outer walls become thinner. These changes in the bone's architecture cause bones to become weaker and more susceptible to fracture.
- The medical term for low bone density is osteopenia. Osteopenia is a common condition and affects around **34 million adults** in the U.S. It typically does not cause physical symptoms. But, when this condition goes undetected and untreated, it can progress into osteoporosis.¹ Going from osteopenia to osteoporosis is not inevitable. You can take steps to prevent osteoporosis.

What is osteoporosis?

- Osteoporosis is a disease characterized by loss of bone density and deterioration of bone structure, leading to an increased risk of fracture.
- Studies suggest that **1 in 2 women** and **1 in 4 men over the age of 50** will break a bone due to osteoporosis in their lifetime.
- A bone break resulting from osteoporosis happens every **3 seconds**.¹



Symptoms of osteoporosis

Early symptoms of low bone density and osteoporosis may be subtle and easy to miss—or there may be no symptoms at all. Low bone density is a risk factor for fracture, which is often the first clue that someone has weakened bones. Some early signs to look out for:

- Loss of height by at least one inch
- Shortness of breath
- Lower back pain
- Posture changes (e.g., being hunched over)
- Fractures after the age of 50

If you're experiencing any of the above, be sure to tell your health care provider.¹

Are you at risk for osteoporosis?

If you are 50 or older and have certain risk factors, you have a higher chance of developing osteoporosis.²

Risk factors you CAN change:

YES

NO

Are you physically inactive?

Is your diet low in calcium?

Is your diet low in Vitamin D?

Do you smoke cigarettes?

Do you drink alcohol—more than one drink per day for women; more than two drinks per day for men?

Do you often under-eat? Are you often on a diet?

Risk factors you cannot change:

Are you a woman?

Are you a postmenopausal woman?

Do you have a low body weight (less than 127 pounds) or a small-boned frame?

Has a member of your immediate family had a bone fracture from a minor fall or extreme spin curvature?

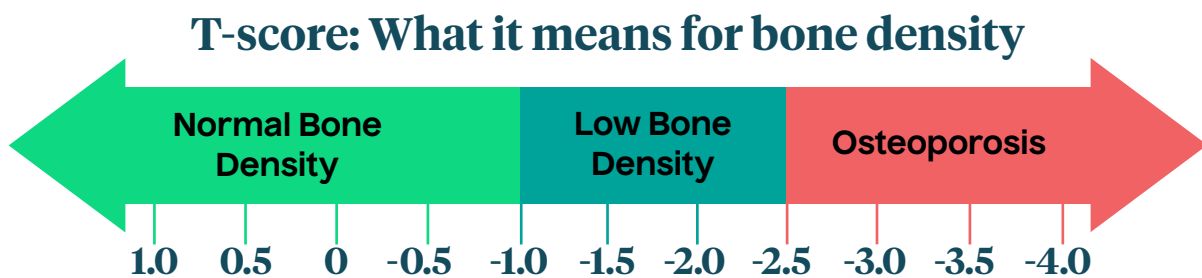
Have you taken:

- Drugs for asthma, arthritis, epilepsy, or certain cancers?
- Steroids for an extended length of time?
- A high dose of thyroid medicine?

Have you had extended periods of bed rest or immobilization?

How is osteoporosis diagnosed?

- A bone mineral density (BMD) test is used to diagnose osteoporosis, determine how severe it is, and assess fracture risk.²
- Another name for a BMD test is dual-energy X-ray absorptiometry, or DXA for short. The DXA scan uses low levels of X-rays to measure the mineral content of your bones at specific locations in your body. This scan is quick, painless, and inexpensive.¹
- Your resulting bone mineral density measurement is provided as a T-score. The lower your T-score, the lower your bone mineral density and the higher your risk for fracture. Osteoporosis is diagnosed with a T-score equal to or lower than -2.5.¹



(Graphic courtesy of Osteoporosis: Taking Care of Your Bones (2021), Amgen, Inc.)

According to the Bone Health & Osteoporosis Foundation, you should have a BMD test if you are a:

- Woman age 65+
- Woman of menopausal age with risk factors
- Postmenopausal woman under age 65 with risk factors
- Man age 70+
- Man age 50-69 with risk factors
- Person who has experienced a bone fracture¹



What can you do to maintain or regain good bone health?

- **Eat foods rich in vitamin D and calcium***
 - A few good sources of calcium: milk, cheese, canned sardines, and yogurt.
 - Vitamin D helps the body absorb calcium and can be found in eggs, milk, and salmon, and vitamin D supplements are available.
- **Participate regularly in weight-bearing and balance exercises***
 - Weight-bearing exercises stimulate bone building to increase bone density.
 - Examples of exercises: brisk walking, dancing, resistance band exercises, jogging.³
- **Avoid tobacco use**
 - Smoking reduces blood supply to bones and production of bone-producing cells.
- **Take prescribed medications as directed by a health care professional**
- **Take measures to prevent falls**
 - Falling increases the chance of a bone fracture. Go through your home and remove clutter or add handrails to reduce falls and accidents. And use proper footwear to maintain your balance.
- **Limit alcohol consumption**
 - If you choose to drink alcohol, limit to one drink a day for women and two drinks for men. Those taking certain medications should abstain.³

**Discuss any major exercise or nutritional changes with your doctor.*



I would like to try these new exercises:

I am going to lower my risk of falling by:

I want to make this change to maintain good bone health:



Talking with your doctor

Know before you go:

- Know your family's medical history, especially any relatives with fractures or stooped posture.
- Know your medical history (your doctor may ask about past and present medical conditions).
- If your doctor orders a bone mineral density (BMD) test for you, be sure to ask for a copy of the test results for your records.²

Get the conversation started:

You can use the questions below to direct the conversation with your doctor. Feel free to check them off as you go and keep some notes on your doctor's answers!

	Questions ²	Notes
	How can I improve my bone health?	
	Should I have a Bone Mineral Density test? (If you have already had a fracture, you should have a BMD test.)	
	How much calcium and vitamin D do I need?	
	What are the best sources of calcium?	
	What are the best sources of vitamin D? Do I need a supplement?	
	Do any medications I take affect my bones?	
	How can I strengthen my bones?	

	Does my posture need attention?	
	Do any of the medications I take affect my balance, attention, and alertness? Are there any that I should avoid?	
	Can I avoid future fractures without medication?	
	Do I need to think about a drug treatment?	
	What medication options are best for me?	
	What are the benefits and risks of medication?	



Resources

[Falls Free CheckUp](#)

The National Council on Aging has designed the Falls Free CheckUp tool to assess your risk for falling. Visit NCOA's website to learn more about your falls risk and falls prevention tips.

<https://www.ncoa.org/article/falls-free-checkup>

[American Bone Health Fracture Risk Calculator™](#)

Use the American Bone Health Fracture Risk Calculator to understand your risk for bone fractures in the next 10 years and other factors that could affect your bone health.

<https://americanbonehealth.org/ncoafrc>

[Check for Safety: A Home Fall Prevention Checklist for Older Adults](#)

The CDC created the Check for Safety: A Home Fall Prevention Checklist for Older Adults, as a room-by-room guide to help you find and fix fall hazards in your home.

https://www.cdc.gov/steady/pdf/check_for_safety_brochure-a.pdf

[Video: 6 Steps to Prevent a Fall](#)

This video highlights six steps older adults can implement today to prevent future falls.

<https://www.ncoa.org/article/video-6-steps-to-prevent-a-fall>

Sources

1. What Is Bone Density? A Practical Guide for Older Adults. (2022, May 12). Found on the internet at <https://www.ncoa.org/article/what-is-bone-density-a-practical-guide-for-older-adults>
2. Osteoporosis: Taking Care of Your Bones (2021), Amgen, Inc.
3. Osteoporosis Community Education Deck (2020), Amgen Inc.

Let's take action!

It's time to take what you've learned today and set some goals! Build your action plan to maintain bone health and assess your risk for osteoporosis using the checklist below. Get started by checking off the goals that mean the most to you (feel free to add your own!) and create your next steps!

I will identify my risk factors for osteoporosis.

I will schedule my annual, free wellness checkup.

I will talk with my doctor about my bone health, osteoporosis, and getting a DXA scan.

I will make sure that my diet includes calcium and vitamin D (amount based on doctor recommendation).

I will incorporate regular weight-bearing and balance exercises.

I will limit my alcohol intake.

I will quit smoking.

I will assess my falls risk using NCOA's Falls Free CheckUp and check my home for safety using the CDC's Home Fall Prevention Checklist.

I will measure my risk of fracture using the American Bone Health Fracture Risk Calculator.™

Add your own! _____

My next steps and action plan:

1.

2.

3.

Notes

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