



## Bone Health

### What should I know about bone health?

It's important to care for the health of every system in the body, and the health of your skeleton is no exception. Weakened bones break more easily, and severely weakened bones (osteoporosis) can sometimes break just doing normal activities. Such fractures can be serious, especially as people age. They can limit mobility, require ongoing medical care, be costly, affect quality of life, and may even be deadly in the case of fractures in larger bones, like the hips.

For cancer survivors, paying attention to bone health is especially important. Some treatments can cause your bones to become thinner and break more easily. Bone loss can also happen more quickly and be more severe than typically happens with age.

*You can look after your bone health by taking steps to limit bone loss that can lead to weak bones and fractures.*

### Cancer treatment risk factors

Certain cancer therapies and related conditions can weaken bones or speed up bone loss, including:

- Women: anti-hormone therapy, early menopause
- Men: androgen deprivation therapy, testicle(s) removed
- Chemotherapy
- Radiation therapy to bones
- Stem cell or bone marrow transplant
- Steroid treatment
- Stomach removed
- Thyroid disorders
- Poor nutrition
- Being a childhood cancer survivor

### Signs and symptoms of osteoporosis:

Most people with osteoporosis don't know they have it, making prevention especially important. The first sign of the disease may be a fracture.

### Possible signs and symptoms of weakened bones and osteoporosis include:

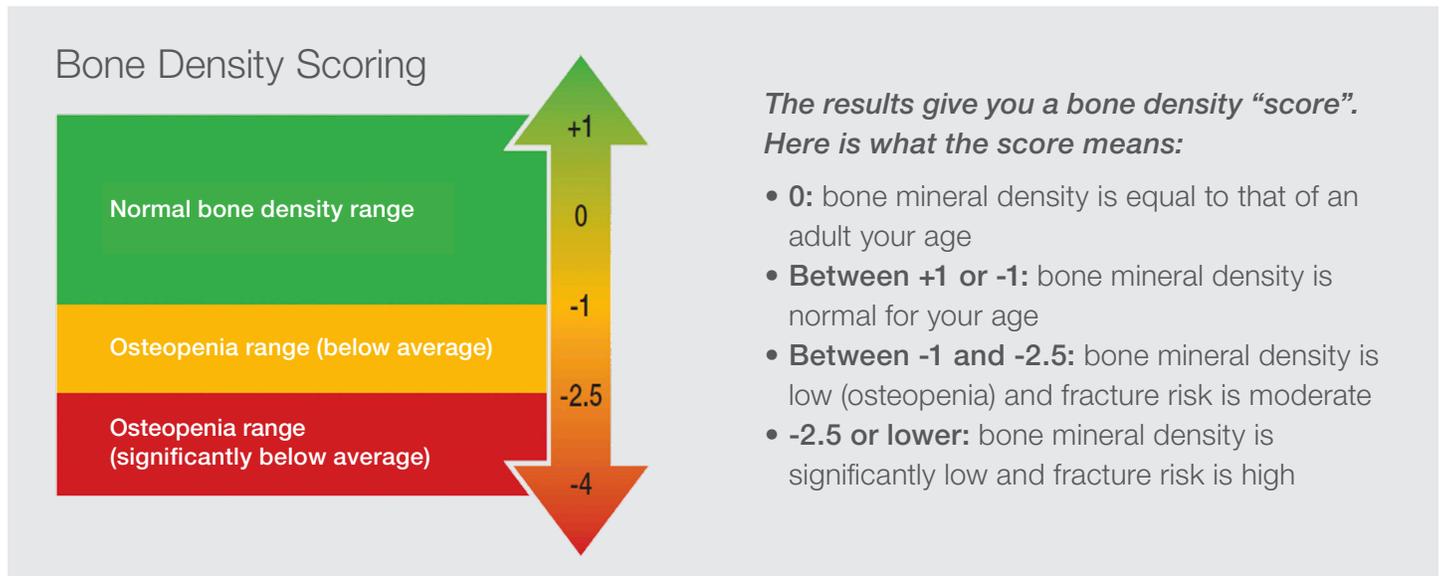
- Back pain, which is often caused by a compression fracture or collapsed bone in your back
- Loss of height
- Bent posture or a curved upper back
- Broken bone after a minor injury, or when doing everyday activities, like picking up a heavy grocery bag



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## How is osteoporosis diagnosed?

Osteoporosis is most often diagnosed by x-ray. The standard test for weakened bones is a bone mineral density test, which measures how dense and how strong bones are. Bone density is indicated by a score. The lower the score, the lower the bone density and the greater the risk of fracture.



## How do you help limit bone loss and treat osteoporosis?

A healthy lifestyle can help preserve bone density and lower the risk of fracture. For some people, medication may be recommended.

### Healthy Behaviors

**Get enough calcium and vitamin D.** Most adults should try to get 1,000 – 1,200mg of calcium and 600 IU of vitamin D each day (see table), ideally through a range of foods. Add supplements if needed. Ask your physician to check your vitamin D level because many people need higher vitamin D replacement doses.

## DAILY SUPPLEMENT RECOMMENDATIONS

GROUP	CALCIUM AMOUNT	VITAMIN D3 AMOUNT
Women ages 19-50	1,000 mg/day	600 IU/day
Men ages 19-70	1,000 mg/day	600 IU/day
Women ages 51-70	1,200 mg/day	600 IU/day
Women and Men 70+	1,200 mg/day	800 IU/day

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**Eat an overall healthy diet.** Focus on foods that are rich in calcium, such as dairy products (milk, cheese, yogurt), beans and lentils, fish (salmon and sardines), nuts (almonds) and dark green leafy vegetables (spinach, kale, broccoli).

**Keep alcohol to moderate levels or less.**  
Zero is best for overall health.

**Be physically active.** Try for 30 minutes of moderate weight-bearing exercise five or more days per week, plus strength or resistance training at least twice a week.

- Moderate exercise examples: cycling, dancing, gardening and playing golf
- Resistance training examples: lifting small weights, using resistance bands and doing body weight exercises

## Quit Smoking

Visit [smokefree.gov](http://smokefree.gov), call 1-800-QUIT-NOW, or talk to a doctor for help quitting.

## Medications

Sometimes you need medications to help treat or prevent osteoporosis or osteopenia. The medications most often used are called bisphosphonates. These drugs help build bone. If recommended, your doctor will discuss these in more detail.

## Tips to Help Prevent Falls

- Try exercises like yoga, Pilates or Tai Chi, to improve balance. Remove throw rugs or attach them to the floor.
- Install safety rails on stairs and grab bars in your shower or tub.
- Apply nonskid tape or decals to your shower or tub floor.
- Keep your house or apartment well lit.
- Wear stable shoes.
- Stand up slowly after sitting or lying down.
- Use a cane or walker to improve your balance.
- Bend at your knees, not at your waist.

## Additional Resources

- Siteman Cancer Center: [siteman.wustl.edu](http://siteman.wustl.edu)
- Washington University School of Medicine, Division of Bone & Mineral Diseases: [bonehealth.wustl.edu/patient-resources](http://bonehealth.wustl.edu/patient-resources)
- National Osteoporosis Foundation: [nof.org/patients](http://nof.org/patients)

*This handout is for informational purposes only. It should not be used in place of advice or instructions given by your doctor. Talk to your doctor or health care team if you have questions about your care.*

## Survivorship Program Mission

To improve the quality of life of cancer patients through education, research and wellness. The survivorship program supports patients, families and caregivers throughout the continuum of diagnosis, treatment and beyond.

**Visit [siteman.wustl.edu](http://siteman.wustl.edu) for more information.**



Siteman Cancer Center complies with applicable federal civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability or sex.

Atención: hay servicios de asistencia de idiomas disponibles a su disposición sin costo. Llame al 314-747-5682 (TTY: 1-800-735-2966).

注意: 免费提供语言协助服务, 如有需要敬请致电 314-747-5682 (TTY: 1-800-735-2966)。

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