

BONE HEALTH

Steroids and other medications

Long-term use of oral or injected corticosteroid medications, such as cortisone, can interfere with the bone-rebuilding process. Low bone density has also been associated with medications used to combat or prevent:

- Seizures
- Gastric reflux
- Cancer
- Transplant rejection

Lifestyle choices

Some bad habits can increase your risk of low bone density. Examples include:

- **Sedentary lifestyle.** People who spend a lot of time sitting have a higher risk of low bone density than do those who are more active.
- **Excessive alcohol consumption.** Studies have shown that regular consumption of more than two alcoholic drinks a day increases your risk of low bone density. Although alcohol appears to have an effect on the bone-forming cells (osteoblasts), the specific mechanisms by which alcohol affects bone are still poorly understood.
- **Tobacco use.** The exact role tobacco plays in low bone density isn't clearly understood, but it has been shown that tobacco use contributes to weak bones.

How can I take better care of my bones?

Focussing on overall good nutrition and getting the right amounts of calcium, vitamin D, protein and potassium can assist with bone health.

If you think you are not getting enough calcium from your diet it is a good idea to **take a calcium supplement** that contains the recommended daily dosage of calcium for your age.

Exercise can also strengthen bones. Strength training using weights or resistance, and activities that promote balance and good posture are beneficial for your bones. Walking, running, jumping, dancing and weightlifting seem particularly helpful. General activity while out and about helps, too.

Know your bone density. **Bone density screening tests** can be done to determine the state of your bone density – traditional radiology x-rays or sonography ultrasound technology. Visit: <http://bonehealthsa.blogspot.com> for more information on non-invasive ultrasound technology.



Is your calcium support

RadiCAL?



Our calcium needs are seldom met by our daily diet. That is why it is essential to choose a good supplement for far reaching support.

Nativa's **RadiCAL** cal/mag complex is more than just support for healthy bones and teeth, it contains:

- Calcium for optimum bone support
- Magnesium for nervous system and bone support
- Antioxidants to help minimise free radical cell damage

Available in 30 and 60 tablets

Now that's RadiCAL!

References:

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The health of your bones is increasingly important as you age. Maximizing your bone health during your younger years helps to lower fracture risk later in life.

For further information sms "BONE" to 43990
Standard rates apply.



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Why is bone health important?

The health of your bones is increasingly important as you age. Older adults often have bone loss - low bone density that makes the bones weaker - which leads to an increased risk of fractures. It's never too early to start thinking about bone health; maximizing your bone health during your younger years helps to lower fracture risk later in life.



Calcium Requirements

Recommended daily allowance per age group:

Calcium Required at each Life Stage*				
Age 3	Age 4 - 8	Age 9 - 18	Age 19 - 50	Age 51 - >70
500 mg per day	800 mg per day	1 300 mg per day	1 000 mg per day	1 200 mg per day

*Recommended Daily Allowance (RDA)

For most people, the amount of bone tissue in the skeleton (known as bone mass) peaks by their late twenties. Bones reach their maximum strength and density - up to 90 percent of peak bone mass - by age 18 in girls and age 20 in boys. This makes your youth the best time to "invest" in your bone health.

Age 1 - 8: The amount of calcium deposited in the bones increases as the **bones grow and lengthen**. Bones **absorb the calcium** more effectively than any other time of life. For effective bone growth and development, **vitamin D intake** is also important. Calcium is required for **teeth development and growth and maintenance** - primary teeth develop and appear.

Age 9 - 18: The amount of calcium deposited in the bones increases as the **bones lengthen**. Bones **absorb the calcium** more effectively than any other time of life. Calcium is required for **maintaining healthy new permanent teeth**.

Adequate calcium intake and maximizing bone stores during the time when bone is rapidly deposited (up to age 30) provides an important foundation for the future. This may not prevent bone loss later in life. The loss of bone with aging is caused by

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several factors, including genetic factors, physical inactivity, and lower levels of circulating hormones (oestrogen in women and testosterone in men).

Age 19 - 30: Bone production exceeds bone destruction, therefore it is **critical to maintain calcium deposit**, especially in women.

Age 30 - 50: Typically, destruction exceeds production - if calcium needs are not met by the diet, your body **extracts calcium from bone**. Therefore, it is critical to take in **enough calcium**.

Age 50 - 70: Decrease in oestrogen (menopause) or testosterone causes calcium to be extracted from bone at a higher rate. Therefore, it is critical to take in **enough calcium**.

What form of calcium is better?

The best form of calcium is from food!

Foods such as dairy products contain other essential nutrients in addition to calcium which are important for both bone and overall health. However, it can be difficult to get all your calcium from food. For an adult to obtain the amount of calcium required daily, an individual would need to consume 4 cups of milk, nearly a whole can of pilchards, or 14 ½ cups of broccoli. Dairy intolerance might also hinder you to consume enough calcium rich foods.



The best supplement form of calcium.

Calcium carbonate contains the largest quantity of elemental calcium, calcium citrate is second in line. Calcium carbonate is 40% elemental calcium by weight while calcium citrate is ± 20% calcium (thus a 500 mg pill of calcium carbonate contains 200 mg of calcium and a 500 mg pill of calcium citrate contains 100 mg of calcium). Therefore, calcium in the calcium carbonate form is an ideal practical form of calcium for a healthy individual. However, calcium carbonate needs an acidic pH in order to dissolve and be absorbed. Calcium citrate, on the other hand, can be absorbed in a wider range of pH. Consequently, for individuals who need to take anti-acids regularly or have a chronic condition resulting in decreased stomach acid production, calcium citrate compounds are the better choice.

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How do I know if I am at risk of low bone density?

A number of factors can increase the likelihood that your bone density can decrease - including your age, race, lifestyle choices, and medical conditions and treatments. Here we explain a few.

Unchangeable risks

Some risk factors for low bone density are out of your control and make it especially important to change what you do have control over, including:

- **Gender.** Women are much more likely to develop low bone density than men.
- **Age.** The older you get, the greater your risk of a decrease in bone density.
- **Family history.** Having a parent or sibling with a tendency towards low bone density puts you at greater risk, especially if your mother or father experienced a hip fracture.
- **Body frame size.** Men and women who have small body frames tend to have a higher risk. This is because they may have less bone mass to start off with from which the body can draw calcium from, as they age.

Hormone levels

Low bone density is more common in people who have too much or too little of certain hormones in their bodies. Examples include:

- **Sex hormones.** Lowered sex hormone levels tend to weaken bone. The reduction of estrogen levels at menopause is one of the strongest risk factors for developing low bone density. Men experience a gradual reduction in testosterone levels as they get older which has a similar effect.
- **Thyroid problems.** Too much thyroid hormone can cause bone loss. This can occur if your thyroid is overactive or if you take too much thyroid hormone medication to treat an underactive thyroid.
- **Other glands.** Low bone density has also been associated with overactive parathyroid and adrenal glands.

Speak to your doctor if you need to discuss these risk factors.

Dietary factors

Low bone density is more likely to occur in people who have:

- **Low calcium intake.** A lifelong lack of calcium plays a major role in the development of low bone density. It is important to consume the right amount of calcium throughout life, not only as we get older. Low calcium intake has been shown to contribute to diminished bone density, early bone loss and an increased risk of fractures.
- **Eating disorders.** People who have anorexia are at higher risk of low bone density. Low food intake can reduce the number of calories and amount of protein and calcium ingested. In women, anorexia can stop menstruation affecting normal hormone levels, leading to weaker bones. In men, anorexia lowers the amount of sex hormones in the body and can weaken bone as well.
- **Gastrointestinal surgery.** A reduction in the size of your stomach or a bypass or removal of part of the intestine limits the amount of surface area available to absorb nutrients, including calcium.