

eHouseCall

YOUR MONTHLY GUIDE TO HEALTH CARE AWARENESS

Bone Health

Doctor's Bag



by Robert Sorrenti, MD
Medical Director

Special Calcium Needs

Some people need more calcium than others. It is important that people from these groups meet their calcium needs:

Young children – skeletal tissue is constantly growing so young children have high calcium requirements.

Pre-teens and teenagers – puberty prompts a growth spurt. This group also needs more calcium to build peak bone mass.

Early 20s to mid-life – sufficient dietary calcium is required to maintain bone mass, although the amount of calcium required is less than during growth stages of life.

Pregnant women – a developing baby needs a lot of calcium and this is taken from the mother's bones. However, most women rapidly replace this bone loss once the baby has stopped breast feeding. There is no need for adult women to take additional dietary calcium during pregnancy, but pregnant adolescents require more calcium to meet the requirements of both their own growth and the fetus.

Elderly people – as we age, the skeleton loses calcium. Women lose more calcium from their bones in the five to 10 years around the age of menopause. However, both men and women lose bone mass as they grow older and need to make sure they get enough calcium in their diet to offset these losses.

Bones play many roles in the body. They provide structure, protect organs, anchor muscles and store calcium. Adequate calcium intake and weight bearing physical activity build strong bones, optimize bone mass and may reduce the risk of osteoporosis later in life.

Peak bone mass – why is it important?

By the age of 20, the average person has acquired most of their skeletal mass. A large decline in bone mass occurs in older adults, increasing the risk of osteoporosis. For women, this occurs around the time of menopause.

It is important for young girls to reach their peak bone mass in order to maintain bone health throughout life. A person with high bone mass as a young adult will be more likely to have a higher bone mass later in life. Inadequate calcium intake and physical activity early on could result in a failure to achieve peak bone mass in adulthood.

Osteoporosis

Osteoporosis, or “porous bone”, is a disease of the skeletal system characterized by low bone mass and deterioration of bone tissue. Osteoporosis leads to an increased risk of bone fractures, typically in the wrist, hip and spine.

While men and women of all ages and ethnic groups can develop osteoporosis, some of the risk factors for osteoporosis include those who are: female; white/Caucasian; postmenopausal women; older adults; smokers; small in body size; eating a diet low in calcium; physically inactive.

What is the role of calcium?

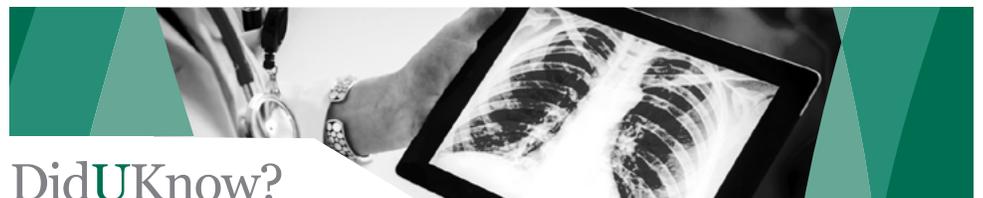
Calcium is a mineral needed by the body for healthy bones, teeth, proper function of the heart, muscles and nerves. The body cannot produce calcium on its own. It must be absorbed through food. Refer to the DidUKnow section for more information about foods rich in calcium.

Vitamin D also plays an important role in healthy bone development. It helps in the absorption of calcium.

Weight-bearing physical activity

Regular physical activity has been associated with many positive health benefits, including strong bones. Weight-bearing physical activities cause muscles and bones to work against gravity. Examples include: walking or jogging; stair climbing; jumping rope; basketball; dancing; hiking; soccer; weight lifting.

The CDC recommends that adults get at least 30 minutes of moderate physical activity and children get at least 60 minutes of moderate physical activity every day if possible.



DidUKnow?

What foods provide calcium?

Calcium is found in many foods. According to the National Institutes of Health (NIH) you can get recommended amounts of calcium by eating a variety of foods, including the following:

- Milk, yogurt, and cheese are the main food sources of calcium for the majority of people in the United States.
- Kale, broccoli, and Chinese cabbage are fine vegetable sources of calcium.
- Fish with soft bones that you eat, such as canned sardines and salmon, are fine animal sources of calcium.
- Most grains (such as breads, pastas, and unfortified cereals), while not rich in calcium, add significant amounts of calcium to the diet because people eat them often or in large amounts.
- Calcium is added to some breakfast cereals, fruit juices, soy and rice beverages, and tofu. To find out whether these foods have calcium, check the product labels.