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URL of this page: //medlineplus.gov/ency/article/002062.htm

Calcium and bones

The mineral calcium helps your muscles, nerves, and cells work normally.

Your body also needs calcium (as well as phosphorus) to make healthy bones. Bones are the main storage site of calcium in the body.

Your body cannot make calcium. The body only gets the calcium it needs through the food you eat, or from supplements. If you do not get enough calcium in your diet, or if your body does not absorb enough calcium, your bones can get weak or will not grow properly.

Your bones are a living organ. Bones are constantly being remodeled with old bone being resorbed and new bone being formed. It takes about 10 years for all the bone in your body to be renewed. That is why paying attention to bone health is important in adults and not just in growing children.

Bone density refers to how much calcium and other minerals are present in a section of your bone. Bone density is highest between ages 25 and 35. It goes down as you get older. This can result in brittle, fragile bones that can break easily, even without a fall or other injury.

The digestive system normally absorbs only 15% to 20% of the calcium taken in your diet. Vitamin D is the hormone that helps the gut absorb more calcium.

Many older adults have common risks that make bone health worse. Calcium intake in the diet (mainly in milk, cheese, and yogurt) may be low. Vitamin D levels may also be low which can make gut calcium absorption low. In many adults, hormonal signals have to take some calcium out of the bones every day to keep blood calcium levels normal. This contributes to bone loss.

Because of this, as you age, your body still needs calcium to keep your bones dense and strong. Most experts recommend at least 1,200 milligrams of calcium and 800 to 1,000 international units of vitamin D a day. Your health care provider may recommend a supplement to give you the calcium and vitamin D you need.

Some recommendations call for much higher doses of vitamin D, but many experts feel that high doses of vitamin D are not safe for everyone. In addition, very high amounts of calcium in your diet can lead to health problems such as constipation, kidney stones, and kidney damage. If you are concerned about bone health, be sure to discuss with your provider whether supplements of calcium and Vitamin D are a good choice for you.

People who have gut-related conditions (inflammatory bowel disease, gastric bypass surgery), parathyroid gland disease, or are taking certain medicines may need different recommendations for calcium and vitamin D supplementation. Talk to your provider if you are unsure about how much calcium and vitamin D to take.

Follow a diet that provides the proper amount of calcium, vitamin D, and protein. These nutrients will not completely stop bone loss, but they will help ensure that your body has the materials it needs to build bones. Remaining fit and active can also protect bones and keep them stronger. Avoiding smoking also protects bones and keeps them stronger.

High-calcium foods include:

- Milk
- Cheese
- Ice cream
- Leafy green vegetables, such as spinach and collard greens
- Salmon
- Sardines (with the bones)
- Tofu
- Yogurt

Alternative Names

Bone strength and calcium; Osteoporosis - calcium and bones; Osteopenia - calcium and bones; Bone thinning - calcium and bones; Low bone density - calcium and bones

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Review Date 7/21/2024

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06/01/2028

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