



Calcium and Vitamin D: The Bone Builders

EXTENSION

April 2022

Deana Hildebrand, PhD, RD, LD
Professor & Extension Specialist

Tori Compton
Dietetic Intern, Extension Program Assistant

Oklahoma Cooperative Extension Fact Sheets
are also available on our website at:
extension.okstate.edu

During pregnancy your baby needs calcium to build strong bones and teeth. He or she depends on you to get enough. If the foods you choose do not have enough calcium, the baby will use calcium you have stored in your bones. This can cause you to have weak bones that break easily. This condition is called osteoporosis. Milk and foods made from milk (dairy) are good sources of calcium. There are a few other foods that add calcium to your diet. Try to have at least 3 servings each day.

What foods have calcium?

- Milk, including fat-free and low-fat milk
- Yogurt
- Cheese
- Pudding
- Cottage cheese
- Custard
- Calcium-fortified juices, whole grain cereals, milks
- Canned fish such as sardines with bone, salmon
- Soybeans or other soy products
- Collard greens, kale, bok choy, broccoli

How much is one serving?

- 1 cup of milk
- 1 ½ ounce of cheese (about one slice)
- 1 cup of yogurt
- ½ cup of ice cream or frozen yogurt

What if I cannot eat dairy?

Some people may have stomach aches, gas, or diarrhea after eating dairy. These are common symptoms of “lactose intolerance.” This happens when the body cannot break down the natural sugar (lactose) in milk. Some people who are lactose intolerant can still have small amounts of dairy with no symptoms.

Tips for reducing symptoms of lactose intolerance

- **Reduce it.** Consider buying and serving lactose-free milk, lactose-free dairy products, and dairy alternatives like fortified soy milk
- **Sip it.** Serve milk and dairy foods to your children with other foods. Try it with cereal, in smoothies, or with meals.
- **Stir it.** Mix milk with other foods. Prepare hot cereals, like oatmeal, and soups with milk instead of water.
- **Slice it.** Choose hard cheeses that are naturally lower in lactose. Examples are Cheddar, Monterey Jack, and Swiss.
- **Shred it.** Sprinkle salads, vegetables, and casseroles with shredded cheese.
- **Spoon it.** Try yogurts with your favorite fruit and add toppings like nuts, granola, or cereal.

Vitamin D - The sunshine vitamin

Your body needs vitamin D to help it use calcium. The best food source is vitamin D fortified milk and yogurt. Look for the words “vitamin D” on the label. Fatty fish, such as salmon and tuna also have vitamin D. Your body can make vitamin D when your skin is exposed to sunlight. Only 10-15 minutes of sun exposure on your body are needed each day to make vitamin D. If you have a darker skin color, keep your skin covered or are not outdoors, consider visiting with your doctor about vitamin D supplements.

The Oklahoma Cooperative Extension Service

WE ARE OKLAHOMA

The Cooperative Extension Service is the largest, most successful informal educational organization in the world. It is a nationwide system funded and guided by a partnership of federal, state, and local governments that delivers information to help people help themselves through the land-grant university system.

Extension carries out programs in the broad categories of agriculture, natural resources and environment; family and consumer sciences; 4-H and other youth; and community resource development. Extension staff members live and work among the people they serve to help stimulate and educate Americans to plan ahead and cope with their problems.

Some characteristics of the Cooperative Extension system are:

- The federal, state, and local governments cooperatively share in its financial support and program direction.
 - It is administered by the land-grant university as designated by the state legislature through an Extension director.
 - Extension programs are nonpolitical, objective, and research-based information.
 - It provides practical, problem-oriented education
- for people of all ages. It is designated to take the knowledge of the university to those persons who do not or cannot participate in the formal classroom instruction of the university.
 - It utilizes research from university, government, and other sources to help people make their own decisions.
 - More than a million volunteers help multiply the impact of the Extension professional staff.
 - It dispenses no funds to the public.
 - It is not a regulatory agency, but it does inform people of regulations and of their options in meeting them.
 - Local programs are developed and carried out in full recognition of national problems and goals.
 - The Extension staff educates people through personal contacts, meetings, demonstrations, and the mass media.
 - Extension has the built-in flexibility to adjust its programs and subject matter to meet new needs. Activities shift from year to year as citizen groups and Extension workers close to the problems advise changes.

References

Academy of Nutrition and Dietetics. The Best Foods to Eat During Pregnancy. October 2018. Available at <https://www.eatright.org/health/pregnancy/what-to-eat-when-expecting/the-best-foods-to-eat-during-pregnancy>. Accessed June 2021.

US Department of Agriculture. Dairy. October 2018. Available at Dairy | MyPlate. Accessed June 2021.

United States Department of Agriculture. (2020, December). Dietary Guidelines for Americans 2020-2025. Dietary Guidelines for Americans. <https://www.dietaryguidelines.gov/>. Accessed June 2021.

Oklahoma State University, as an equal opportunity employer, complies with all applicable federal and state laws regarding non-discrimination and affirmative action. Oklahoma State University is committed to a policy of equal opportunity for all individuals and does not discriminate based on race, religion, age, sex, color, national origin, marital status, sexual orientation, gender identity/expression, disability, or veteran status with regard to employment, educational programs and activities, and/or admissions. For more information, visit <https://eeo.okstate.edu>.

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Director of Oklahoma Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Vice President for Agricultural Programs and has been prepared and distributed at a cost of 40 cents per copy. 04/2022 KG.