

Healthy bones in children and youth

Having strong bones can help prevent broken bones. Most of our bone strength is built during childhood and adolescence, when bones are growing.

Eating foods rich in calcium and vitamin D can help develop strong, healthy bones.

Doing weight-bearing activities every day (such as running and jumping) is also important.

How much calcium does my child need every day?

Age	Number of servings
1 to 3 years	2
4 to 8 years	2 or 3
9 to 18 years	3 or 4

Source: Health Canada, Institute of Medicine

What are examples of one 'serving' of calcium rich foods?

- 250 mL white cow's milk
- 250 mL of fortified* plain soy beverage (only for children 2 years or older)
 - other plant -based beverages are not usually recommended
- 240 grams or 1 cup of fruit yogurt (yogurt tubes are usually 60 grams each)
- 175 grams or $\frac{3}{4}$ cup of plain yogurt
- 45 grams of cheese (usually 2 string cheeses or 2-3 processed cheese slices)

- ½ cup extra firm tofu
- 1 cup baked beans
- 1-2/3 cups of broccoli
- 1-¼ cup spinach

*Fortified means that the product has had extra vitamins and sometimes calcium added.

How much vitamin D does my child need every day?

Your child needs 600 international units (IU) of vitamin D per day. This amount could come from foods rich in vitamin D, or possibly a supplement.

Here are some foods that have 100 IU of vitamin D:

- 250 mL fortified* white cow's milk
- 250 mL of fortified* plain soy beverage
- 4 egg yolks
- 240 grams of fortified* yogurt
- 20 grams of salmon

Your body needs vitamin D to help absorb calcium. In the summer, vitamin D is produced naturally when our skin is exposed to sunlight. But sunscreen blocks this. Also, young children should not have too much sun exposure, and sunscreen is not advised for babies under 6 months old.

What if my child is not getting enough vitamin D?

If you worry that your child is not getting enough vitamin D, offer more vitamin D rich foods. Talk to your health care provider before offering your child a vitamin D supplement.

How does exercise help build strong bones?

Regular weight-bearing exercises (where muscles and bones work against gravity) stimulate bones and make them stronger. Examples of weight-bearing exercises include running, jumping, dancing, and skipping.

- Children 1 to 4 years of age should get at least 180 minutes per day of physical activity.
- Children 5 to 18 years of age should participate in 60 minutes of **moderate to vigorous** physical activity each day.

What else helps build healthy bones?

In addition to getting enough calcium and vitamin D, be sure your child avoids these products:

- tobacco,
- alcohol,
- coffee or tea, and
- sodas.

Additional resources

- Calcium and kids (Dietitians of Canada)
(<https://www.unlockfood.ca/en/Articles/Bone-Health/Calcium-and-Kids.aspx>)
- What you need to know about Vitamin D (Dietitians of Canada)
([https://www.unlockfood.ca/en/Articles/Vitamins-and-Minerals/What-you-need-to-know-about-Vitamin-D.aspx?aliaspath=%2fen%2fArticles%2fNutrients-\(vitamins-and-minerals\)%2fWhat-you-need-to-know-about-Vitamin-D](https://www.unlockfood.ca/en/Articles/Vitamins-and-Minerals/What-you-need-to-know-about-Vitamin-D.aspx?aliaspath=%2fen%2fArticles%2fNutrients-(vitamins-and-minerals)%2fWhat-you-need-to-know-about-Vitamin-D))
- Canada's food guide (Health Canada)
(<https://food-guide.canada.ca/en/>)
- Vitamin D and Calcium: Updated Dietary Reference Intakes (Health Canada)
(<https://www.canada.ca/en/health-canada/services/food-nutrition/healthy-eating/vitamins-minerals/vitamin-calcium-updated-dietary-reference-intakes-nutrition.html>)

Reviewed by the following CPS committees

- Community Paediatrics Committee
- Nutrition and Gastroenterology Committee

Last updated: December 2020



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