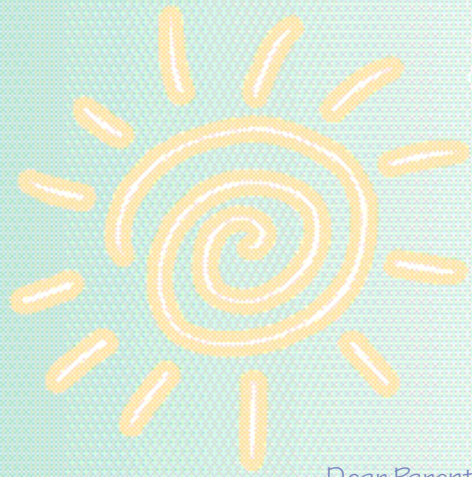


MILK MATTERS

FOR YOUR CHILD'S HEALTH!



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
National Institutes of Health
National Institute of Child Health and Human Development



Dear Parent,

Your child's bones are growing every day, and growing bones need lots of calcium. Milk is an excellent source of calcium.

We hope that this book will help you learn more about milk and calcium so you can help your children grow into strong, healthy adults.

Sincerely yours,

Duane Alexander, MD
Director, National Institute
of Child Health and
Human Development (NICHD)



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That's because milk and dairy foods have lots of calcium and other nutrients that make bones grow strong and healthy. Children and teenagers especially need the calcium and other bone-building materials in milk because their bones are growing more than at any other time in their lives.

Studies show that most kids don't get the calcium they need. In fact, more than half of teenage boys and girls don't get the recommended amount of calcium.





Why Do Kids Need Calcium?

Calcium is the mineral found in many foods that does lots of good things for the body.

Calcium makes bones strong. Bones may seem hard and lifeless, but they are actually growing and alive. Because bones grow most during the childhood and teenage years, these times are especially important for getting them strong and healthy. By eating and drinking lots of foods with calcium, children and teens can help build their “bone banks” to store calcium to keep bones strong for the rest of their lives.

Calcium helps reduce the risk of osteoporosis.

Osteoporosis is a condition that makes bones weak and break more easily. Getting enough calcium as children or teens can help protect against osteoporosis. Although the effects of osteoporosis might not show up until adulthood, kids need to get enough calcium when they are young to help prevent it.

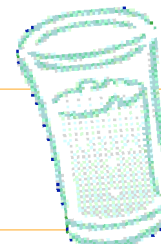
Bones also need weight-bearing exercise to become stronger. Activities such as walking, running, jumping rope, dancing, climbing stairs, and playing team sports like basketball, soccer, and volleyball help make bones stronger.

Calcium makes the whole mouth healthy. Calcium keeps teeth and gums healthy throughout life. Even before baby teeth and adult teeth come in, they need calcium to develop fully. And after teeth come in, they stay strong and resist tooth decay by taking in calcium. Calcium also makes gums healthy. Getting enough calcium as a young adult may help prevent gum disease later in life. And calcium makes jawbones strong and healthy, too.



HOW MUCH CALCIUM Does My Child Need?

AGE	CALCIUM needed each day (in milligrams)
Birth to 6 months	210 mg
7-12 months	270 mg
1-3 years	500 mg
4-8 years	800 mg
9-18 years	1,300 mg



Source: Dietary Reference Intakes for Calcium, National Academy of Sciences, 1997



Where Can Kids Get Calcium?

Milk and other dairy foods, such as cheese and yogurt, are excellent sources of calcium. One 8-ounce glass of milk has about 300 milligrams (mg) of calcium. Just a few glasses of milk can go a long way toward giving kids the calcium they need each day.

Milk also has other vitamins and minerals that are good for bones and teeth. One especially important nutrient is vitamin D, which helps the body to absorb more calcium.

Other sources of calcium are dark green, leafy vegetables, such as kale, and foods like broccoli, soybeans, tofu made with calcium, orange juice with calcium added, and other calcium-fortified foods.



IDEAS for high-calcium meals & snacks

BREAKFAST

- Pour milk over your breakfast cereal
- Have a cup of low-fat or fat-free yogurt
- Drink a glass of calcium-fortified orange juice
- Add low-fat milk instead of water to oatmeal and hot cereal

LUNCH

- Add low-fat milk instead of water to tomato soup
- Add cheese to a sandwich
- Have a glass of milk instead of a soda
- Make mini-pizzas or macaroni and cheese

SNACK

- Try flavored milk like chocolate or strawberry
- Have a frozen yogurt
- Try some pudding made with milk
- Make a "smoothie" with fruit, ice, and milk
- Dip fruits and vegetables into yogurt

DINNER

- Make a salad with dark green, leafy vegetables
- Serve broccoli or cooked, dry beans as a side dish
- Top salads, soups, and stews with low-fat shredded cheese
- Add tofu made with calcium to stir fry and other dishes

Sources include American Dietetic Association's Complete Food and Nutrition Guide, 1996



Food Nutrition Labels

Reading the food label can be an easy way to find out how much calcium is in one serving of food. For example, one 8-ounce serving of milk has 300 mg of calcium, or 30% of the Daily Value (DV). By looking on the food label, you can see how much calcium a food serving gives toward the total amount needed for the day.

Here is an example of a food nutrition label. The label shows that this brand of frozen yogurt with calcium added has 45% of the Daily Value for calcium in each serving (there are about 16 servings of frozen yogurt in this container).

100% of the Daily Value is equal to 1,000 mg of calcium a day. However, children ages 9-18 need **extra** calcium to keep their bones growing strong and healthy. They should be getting 1,300 mg of calcium a day, or 130% of the Daily Value.

Nutrition Facts			
Serving Size 1/2 cup (67g)			
Servings Per Container 16			
Amount Per Serving			
Calories	100	Calories from Fat	0
		% Daily Value	
Total Fat	0g		0%
Saturated Fat	0g		0%
Cholesterol	0g		0%
Sodium	60mg		3%
Total Carbohydrate	22g		7%
Dietary Fiber	0g		
Sugars	15g		
Protein	3g		
Vitamin A	2%	* Vitamin C	0%
Calcium	45%	* Iron	0%

* Percent Daily Values are based on a 2,000 calorie diet.



Because the food label does not list calcium in milligrams, the easiest way to tell if kids 9-18 are getting enough is by making sure the Daily Values for calcium add up to 130% each day.

Here is an example of how to get 1300 mg (130% DV) of calcium per day:

FOOD	Milligrams of CALCIUM	% Daily Value (DV) listed on the food label
1 (8 oz) glass milk	300 mg	30% DV
1 (8 oz) cup yogurt	300 mg	30% DV
1 1/2 ounces cheddar cheese	300 mg	30% DV
1 (8 oz) glass calcium-fortified orange juice	300 mg	30% DV
3 corn tortillas	100 mg	10% DV
TOTAL Calcium:		TOTAL DV:
1300 mg		130% DV

Another way to figure out how much calcium your child is getting is to add a "zero" to the end of the Daily Value number (or multiply by 10). This will show you what the Daily Value equals in milligrams of calcium. For example, a serving of milk that has a Daily Value of **30%** has **300 mg** of calcium.

The food label can also help you choose between foods if you look to see which ones have the most calcium. A food with a Daily Value of 20% or more is high in calcium. A food with a Daily Value less than 5% is low in calcium. By looking at the labels, you can pick the foods that have the most calcium in them to help your child build strong bones.



W H E R E I S . . .

FOOD	SERVING SIZE	CALCIUM in Milligrams*	% Daily Value on Food Label*
Plain yogurt, fat-free	1 cup	450	45%
Frozen yogurt, fat-free, calcium fortified	1/2 cup	450	45%
American cheese	2 ounces	350	35%
Ricotta cheese, part skim	1/2 cup	337	30%
Yogurt with fruit	1 cup	315	30%
Cheddar cheese	1 1/2 ounces	306	30%
Milk (fat-free, low-fat, whole, or lactose-free)	1 cup	300	30%
Orange juice with added calcium	1 cup	300	30%
Tofu (made with calcium- sulfate)	1/2 cup	260	25%

. . . T H E C A L C I U M ?

FOOD	SERVING SIZE	CALCIUM in Milligrams*	% Daily Value on Food Label*
Soy milk, calcium-fortified	1 cup	250- 300	25%-30%
Cheese pizza	1 slice	220	20%
Macaroni & cheese	1/2 cup	180	18%
Corn tortilla	3 tortillas	132	10%
Broccoli, cooked or fresh	1 cup	90	9%
Soybeans, cooked	1/2 cup	90	9%
Almonds, dry roasted	1 ounce	80	8%
Bok choy, boiled	1/2 cup	80	8%
White bread	1 slice	30	3%

* Calcium content varies depending on the ingredients for many foods. % Daily Values have been rounded according to Food and Drug Administration guidelines. Sources for Calcium Food Table: American Dietetic Association's Complete Food and Nutrition Guide, 1996; Bowes and Church's Food Values of Portions Commonly Used, 1998; Some values have been rounded.





What Kind of Milk is Best?

Fat-free (skim) and low-fat (1%) milk and dairy products have no or little fat so it's easy for kids to get enough calcium without adding extra fat to their diets. However, babies under one year old should drink only breast milk or iron-fortified formula. Children ages one to two should drink whole milk rather than reduced-fat varieties.* Between ages two and five, parents should gradually transition children to reduced-fat, low-fat, or fat-free milk.

Whole, Low-Fat, Fat-Free, AND Chocolate Milk



ALL have 300 mg of calcium per glass — But they have different amounts of fat.
 8 ounces of whole milk contains 8 grams of fat; reduced-fat milk has 5 grams of fat; low-fat milk has 2.5 grams of fat; and fat-free milk has 0 fat.

** Source: American Academy of Pediatrics, Pediatric Nutrition Handbook, 1998*

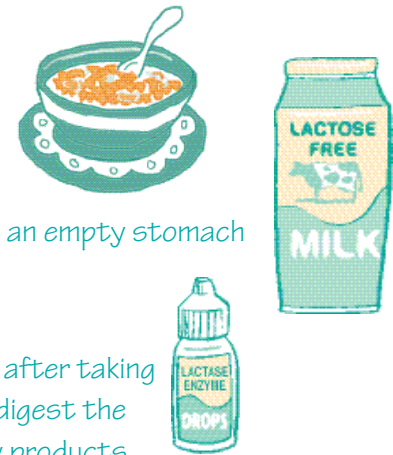
Can Everyone Drink Milk?

Lactose is the sugar found in milk and dairy products and can cause stomach discomfort in some people. A person with lactose intolerance has trouble digesting the sugar in dairy foods. Lactose intolerance is not common among infants and children. Among adults, it is more common in Asian, Hispanic, African American, and Native American populations.



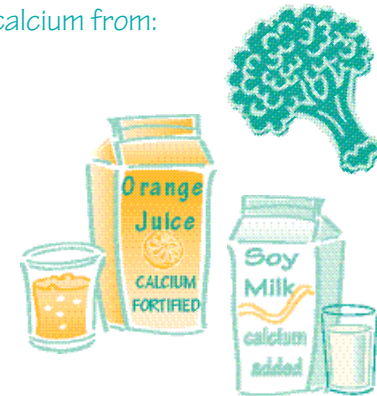
In general, **people who have problems with lactose** can actually eat or drink:

- An 8-ounce glass of milk with meals without getting an upset stomach
- Yogurt or cheese
- Milk with other foods, such as cereal or fruit, instead of drinking it on an empty stomach
- Lactose-free milk
- Milk containing lactose, after taking pills or drops that help digest the lactose in milk and dairy products



People who are allergic to milk and dairy products can generally eat or drink calcium from:

- Vegetables, such as broccoli or kale
- Calcium-fortified orange juice
- Soy milk with calcium added
- Calcium supplements



If you or your children have problems with lactose or are allergic to milk, talk to your health care provider about good sources of calcium.



Getting Enough Calcium

Getting enough calcium is important for building strong bones and teeth and ensuring future health. Here are three things that parents can do to help kids get enough calcium:

1. Offer your child ...

healthy foods filled with calcium, such as low-fat or fat-free milk and dairy products, and dark green, leafy vegetables.

2. Keep milk, dairy products, and foods with calcium in the house...

and put milk on the table during meals and snacks.

3. Drink milk yourself ...

and make it part of your whole family's diet. Kids make many food choices by watching their parents, so show them milk and calcium are important your whole life long.



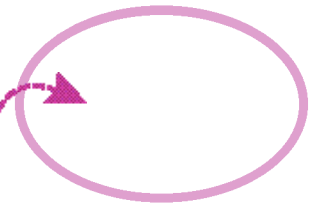
Count Your Calcium!



Copy this chart and fill it out with your kids to help keep track of how much calcium they get each day.

Food	Calcium (in milligrams)	% Daily Value

TOTAL
MILLIGRAMS
OF CALCIUM
TODAY





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