

Calcium

Health professionals, including dietitians, all agree on the importance of calcium intake during childhood and adolescence for building strong bones and teeth and reducing the risk of fractures and osteoporosis later in life. 98% of bone development occurs before age 20. Similar to depositing into a bank account, it is imperative for children and adolescents to regularly consume adequate amounts of calcium rich dairy products daily to maximize development of peak bone mass. The USDA reports that seven out of ten teen boys and nine out of ten teen girls are not getting the calcium they need. Childhood and adolescent years are the critical “window of opportunity” to build strong bones that will last a lifetime.

The National Dairy Council assembled the 3-A-Day of Dairy for Stronger Bones health and wellness campaign in 2003 which is now partnered with the American Academy of Family Physicians (AAFP), the American Academy of Pediatrics (AAP), the

American Dietetic Association (ADA) and National Medical Association (NMA). The message is clear; consuming three servings of calcium-rich dairy foods such as milk, cheese and yogurt every day will help build and maintain healthy bodies. Dairy foods are rich in calcium, potassium, protein and vitamin D, which are essential to building strong bones and teeth. In middle and later years, a shortage of calcium may lead to thin, fragile, breakable bones, a condition called osteoporosis.

Lactose Intolerance

A considerable number of the population is intolerant to lactose, the natural sugar found in milk. Common symptoms of lactose intolerance include nausea, bloating, gas or diarrhea within 30 minutes to two hours of consuming lactose. In persons with lactose intolerance, the body does not produce enough of the digestive enzyme lactase, which is necessary for the breakdown of milk sugar to simple forms of sugar; glucose and galactose. There are simple tests to diagnose lactose intolerance, such as the Lactose Tolerance Test, the Hydrogen Breath Test and the Stool Acidity Test. The AAP report identified simple strategies to make dairy easier to digest. Lactose-reduced or lactose-free milk or yogurt that contains active cultures is generally well tolerated. Hard cheeses like Parmesan, Swiss and cheddar are naturally lower in lactose. The lactase enzyme is also available in tablet and liquid form, and can be taken when consuming dairy



foods. Fortunately, there are also other food sources that contain calcium.

How much calcium do we need?

Recommendations by the Institute of Medicine report that the amount of daily calcium intake varies by age group and pregnant or lactating women:

<u>Age Group</u>	<u>Daily Calcium (mg)</u>
0-6 months	400 mg
6-12 months	600 mg
1-5 years	800 mg
6-10 years	1,200 mg
11-24 years	1,200-1,500 mg
19-50 years	1,000 mg
51-70 years	1,200 mg
Pregnant & lactating women	1,200-1,500 mg

To encourage your children to develop positive eating habits when they are young (so they will build and maintain healthy bodies for life) the ADA offers these five tips for families:

- Offer a variety of dairy foods
- Choose mostly lower fat options of dairy products
- Milk and dairy products offer the most natural occurring calcium per serving, but they also contain other nutrients essential to good health, including: Phosphorus, potassium protein, vitamins D, A, and B12, riboflavin and niacin
- Other sources of calcium include tofu, legumes, leafy green vegetables and calcium-fortified orange juice
- Involve your kids in their food choices
- Have your children help plan or prepare meals
- Educate your kids about the importance of calcium rich foods in their diet

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- Tally your kids' daily dairy intake
- Provide snacks for healthy eating
- Portable dairy snack items, including single serve bottles of flavored milk, cheese cubes and drinkable yogurts
- Model Healthy Eating
- Healthy eating habits are established early in life with parents identified as the strongest role models
- Parents should encourage their kids to consume appropriate foods by including three servings of dairy in their diets daily. Studies show mothers who drink more milk tend to have children who drink milk more often and consume fewer soft drinks
- Protect Family Mealtime
- A recent study among teenagers found that greater frequency of family meals was associated with higher intakes of fruits, vegetables, grains and calcium-rich foods and lower consumption of soft drinks
- It is important to connect with your children as you enjoy a healthy meal together – turn off the television and spend quality time with your family

For additional tips, delicious and nutritious recipes, and more information on the nutritional benefits of dairy foods, visit www.3aday.org ❖

About the Author...

Catherine Hahn is Rainbow's Dietitian and has joined our professional team with over seven years experience in both in-patient and out-patient treatment. She earned her Masters in Human Nutrition from the University of Georgia.

Calcium & Lactose in Common Foods

Meats & Vegetables	Calcium Content	Lactose Content
Soymilk, 1 cup	200-300 mg	0
Sardines, with edible bones	270 mg	0
Salmon, canned	205 mg	0
Broccoli, raw, 1 cup	90 mg	0
Orange, 1 medium	50 mg	0
Pinto Beans, 1/2 cup	40 mg	0
Tuna, canned, 3 oz.	10 mg	0
Lettuce Greens, 1/2 cup	10 mg	0
Dairy Products		
Yogurt, plain, low-fat, 1 cup	415 mg	5 g
Milk, reduced fat, 1 cup	295 mg	11 g
Swiss cheese, 1 oz.	270 mg	1 g
Ice Cream, 1/2 cup	85 mg	6 g
Cottage Cheese, 1/2 cup	75 mg	2-3 g

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RainbowVisions Magazine
 Rainbow Rehabilitation Centers, Inc.
 5570 Whittaker Road, Ypsilanti, MI 48197, USA
 E-mail: rainbowvisions@rainbowrehab.com

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