# SportsNutrition

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## The Athlete's Kitchen

*"I'm 44. Should I start taking calcium pills?"..."A bone density test indicated I have the bones of a 70 year old—and I'm only 34. Yikes!!!"... "Will drinking more milk help my stress fracture heal faster?"*

Questions and confusion abound about the role of calcium in athletes' diets. If you are like most active people, you may think, "Milk is for kids" and quench your thirst at lunch and dinner with (diet) soda or water. As a result, you can easily end up consuming a calcium-deficient diet (that is, unless you consume yogurt and cheese instead of milk).

Weight-conscious women, in particular, are known to have calcium-deficient diets out of (the unjustified) fear that milk's calories will add to undesired weight gain. Many men also have calcium-poor diets. If they are not milk drinkers, men's main sources of calcium are from the cheese on cheeseburgers and pizza. Not very health enhancing...

Given the average American lives for 77.7 years, maintaining bone health throughout the lifespan should be a priority for all athletes, starting as youngsters and continuing as master's athletes. A calcium-rich diet and weight-bearing exercise (such as running, as opposed to biking and swimming) is indeed important for optimizing the bone density of both growing children and active adults. Bones are alive and require a life-long calcium intake. If your family has a history of osteoporosis, your risk for "shrinking" (losing height) as you get older is high and you should pay special attention to maintaining your bone density. Female athletes with a history of amenorrhea also have a high risk for weak bones and should get their bone density tested.

Here's some information about calcium and bone health to help you enjoy lifelong health, no bones about it.

*Q. Can I take a calcium supplement instead of drink milk?*
A. While *any* calcium is better than none, taking a calcium pill does not compensate for a calcium-poor diet. A supplement offers calcium, but it does not offer the high-quality protein found in (soy) milk, nor the myriad of other health-enhancing nutrients. Little babies thrive on milk, not calcium pills. Do you really think a pill can replace a whole food?

*Q. I save calories by taking a calcium pill instead of milk. OK?*
A. Not really. Although a calcium pill offers a low-calorie alternative to consuming the recommended three (8-ounce) glasses of milk or yogurt each day, research indicates milk drinkers tend to be leaner than milk avoiders. I encourage my clients to embrace milk as a "liquid food" that is satiating and curbs one appetite. That is, milk can feel more filling than the same number of calories from soda or juice.

Most of my active female clients reduce weight on 1,800 calories; men on 2,100+ calories. That breaks down to 500 to 600 calories per meal (breakfast, lunch, dinner) and 300 calories for a snack. Enjoying low-fat (soy) milk on cereal, a mid-morning latte and a yogurt snack seems a powerful way to spend 300 of those calories and get most of the recommended 1,000 mg. calcium/day for adults 19-50 years; 1,200 mg. for adults older than 50; 1,300 mg. for kids 9-18 years. If you are a parent, be a role-model and drink milk at dinner to encourage a calcium-rich intake for your kids.

## Calcium Concerns: Boning up on nutrition

*Q. I'm lactose intolerant. Can I get enough calcium from non-dairy foods like soymilk, spinach, broccoli and almonds?*
A. For certain, you can get calcium from non-dairy sources. Soy milk is calcium-fortified and offers ~300 mg calcium in 8 ounces—similar to cows' milk. Other convenient non-dairy calcium sources include fortified orange juice (350 mg/8 oz.) and fortified cereal, such as Total Cereal (1,000 mg/3/4 cup).

If you are do not consume dairy products or fortified soy products, you will have to work hard to consume adequate calcium. For example, to get the recommended calcium intake from plants, in one day you'd need to eat 10 cups of spinach salad, 3.5 cups of broccoli, and 4 ounces almonds (about 88 almonds @ 675 calories). That's a lot of eating....

What you do NOT get from those plant sources of calcium is Vitamin D. Vitamin D enhances the absorption of calcium and is needed to not only protect bone health but also to reduce the risk of high blood pressure, diabetes, and heart disease; enhance immune function and reduce inflammation. Vitamin D is added to milk and some brands of yogurt, but is hard to find naturally in foods other than oily fish. Hence, non-milk drinkers have a high risk for not only calcium but also vitamin D deficiency.

*Q. I live in Boston and spend lots of time outdoors in the sun. Should I take additional D even though I drink milk?*
A. Yes, particularly between Thanksgiving and Easter. Vitamin D deficiency is surprisingly common in people who live in northern latitudes (north of Atlanta), where the sun's ultraviolet rays do not effectively convert the body's inactive form of D (just under the skin) into an active form. And even Southerners need to be mindful. A study of southern distance runners indicates 40% of them were D-deficient. Indoor athletes (dancers, swimmers, hockey players, figure skaters, basketball players, gym rats, etc.) should ask their doctors about getting their blood levels of D measured.

*Q. Does the fat in milk contribute to heart disease?*
A. Controversial. A study that tracked the health and dairy intake of 4,374 children for 56 years (between 1948 and 2006) reports there was no increased risk of heart disease or stroke among the 34% who died during that time—even though, as kids, the subjects in the study drank *whole* milk. In fact, the children who consumed the most milk/cheese lived longer.

This study conflicts with the prevalent message to reduce the risk of heart disease by limiting the intake of milk's saturated fat. Until more research clarifies this confusion, I recommend you enjoy *lowfat* dairy/calcium-rich foods to help reduce excessive fat and calorie intake.

*Q. Will drinking extra milk help a broken bone heal faster?*
A.Doubtful. Bones need 6 to 8 weeks to heal. Would stronger bones have helped prevent the break in the first place...?


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**References**

Heaney R, Davies K, Barger-Lux M. Calcium and weight: clinical studies. *J Amer College Nutrition* 2002 Apr;21(2):152S-155S.

Willis KS, Peterson NJ, Larson-Meyer DE. Should we be concerned about the vitamin D status of athletes? *Int'l J Sports Nutr & Exerc Metab* 2008 18:204-235.

J C van der Pols, D Gunnell, G M Williams, J M P Holly, C Bain, R M Martin. Childhood dairy and calcium intake and cardiovascular mortality in adulthood: 65-year follow-up of the Boyd Orr cohort. *Heart.* 2009. July 29. (Epub ahead of print).