

Calcium & Stone Disease

In the past, calcium stone formers were advised to restrict their dietary calcium intake. Current evidence, however, suggests that limiting dietary calcium may lead to an *increased* risk of stone formation.

The greatest protective effects, in fact, are seen in those who maintain adequate calcium and also reduce their sodium and animal protein intake.

Current research suggests that a diet containing adequate calcium is associated with reduced risk of stone formation ¹. It is thought that a low calcium intake can actually increase the risk of forming kidney stones.

The Adequate Intake (AI) for calcium for adults is **1000 – 1200 milligrams (mg) per day**. The average intake of calcium from food and supplements among adults in British Columbia is only 870 – 1000 mg per day ².

Food item	Serving	Calcium (mg)
Milk (skim, 1%, enriched soy)	1 cup (250 ml)	~300
Yogurt, reduced fat	¾ cup (175 ml)	294
Hard cheese (low sodium cheddar, Swiss)	1.5 oz (50 g)	360 – 400
Orange juice, calcium-fortified	½ cup (125 ml)	185
Salmon, canned with bones	~ ⅓ can (75 g)	171
Cottage cheese, 1%	½ cup (125 ml)	70
Lentils & beans (kidney, garbanzo, lima)	¾ cup (175 ml)	25 – 60
Orange	1 medium	60
Snow peas, cooked	½ cup (125 ml)	36
Broccoli, cooked	½ cup (125 ml)	33
Bread, oat bran	1 slice	23
Antacids	1 tablet	200 – 600

Source: Health Canada. Canadian Nutrient File, 2007. Canadian Nutrient File Home Page, http://www.hc-sc.gc.ca/food-aliment/ns-sc/nr-rn/surveillance/cnf-fcen/e_index.html

Make sure to get the recommended 1200 milligrams of calcium per day, but avoid excessive consumption of calcium-rich foods and do not use calcium supplements unless specifically prescribed by your doctor or if you are lactose or dairy intolerant. Calcium supplements, if recommended by your physician, should also be taken with meals to promote oxalate binding.

1. Taylor EN, Curhan GC. Role of nutrition in the formation of calcium-containing kidney stones. *Nephron Physiology* 2004; 98: 55-63.
2. Forster-Coull L, Levy Milne R, Barr SI. British Columbia Nutrition Survey. Ministry of Health Services, Health Canada and University of British Columbia; 2004.



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