



NutritionMatters

Nutrition Services | Health Services Department

Calcium - The Non-Dairy Way

Why Some People Choose Non-Dairy Sources of Calcium

There are a variety of reasons people choose or need non-dairy sources of calcium. They may be allergic to milk products or dislike them. They may have another reason for not choosing to consume milk or milk products. Whatever the reason, it is important to make sure you get enough calcium from other sources.

The Facts About Calcium

Calcium is an important mineral that helps build and maintain healthy bones. It also helps our muscles and nerve tissue work properly.

When we don't get enough calcium from our food, it is taken from our bones to keep our muscles and other tissues working properly.

As we get older, our risk of developing osteoporosis increases. Osteoporosis is a slow weakening of the bones, making them break more easily. Osteoporosis affects women *and* men. Eating calcium-rich foods every day will help ensure that our bones get the calcium they need to stay strong and healthy.

Studies have shown that calcium may also help prevent certain types of cancer and to control blood pressure.

How Much Calcium Do We Need?

Calcium needs change throughout life, with the highest needs during stages of growth like adolescence or pregnancy. More calcium is also needed after menopause. The current daily recommended intakes (DRI, 2000) are:

<i>Children -</i>	500 to 800mg
<i>Adolescents -</i>	1300mg
<i>Adults (19-70yr) -</i>	1000-1200mg
<i>Pregnant/ breastfeeding -</i>	1000mg

Which Foods Are Sources of Calcium?

Here are some examples of non-milk foods that are sources of calcium. For comparison, 1 cup of milk offers 315 mg of calcium.

Food/Beverage	Calcium
Tropicana® Calcium & Vitamin Supplement 1 cup	344 mg
Fortified soy beverage 1 cup	300 mg
Tofu, firm, made with calcium sulphate ½ cup	258 mg
White beans, cooked 1 cup	202 mg
Salmon, canned w/ bones, ½ cup	181 mg
Almonds ¼ cup	103mg
Figs, dried 5 medium	90 mg
Bok choy, cooked ½ cup	84 mg
Broccoli, cooked 3 spears	51mg

Source: Canadian Nutrient File, Health Canada, 1999; product label.



Calcium's Friends

- **Vitamin D** helps our bodies absorb and store calcium from the foods we eat. It is added to milk and margarine, and it is also found in liver, fish and eggs.



- **Weight-bearing activities**, such as running, walking, stair-climbing and cycling, when done three or more times per week can also help our bodies store calcium.

Calcium's Enemies

- **Too much protein and salt** in the foods we eat can cause our bodies to lose calcium.
- **Alcohol, smoking, caffeine and a lack of exercise** can also limit our body's ability to store calcium properly.

To Supplement or Not

If you think that your diet does not provide the recommended amount of calcium each day, you may need a supplement. For help picking calcium supplements ask your doctor, your pharmacist or a registered dietitian.

To help you choose a supplement consider the following:

- 1) Look for the amount of **elemental calcium** on the label- that is the actual amount of calcium in the supplement
- 2) Chewy or effervescent types get into your body the easiest

- 3) Calcium carbonate or calcium citrate are two of the best forms of calcium in a supplement
- 4) Make sure your calcium supplement contains Vitamin D to help absorb the calcium.

Avoid supplements that contain bone meal, fossil shell, oyster shell or dolomite. These may also contain lead, which can be toxic.



Sesame Bok Choy and Carrot Stir-Fry

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| 1 tsp. | dark sesame oil |
| 4 cloves | garlic, minced |
| 3 | carrots, sliced |
| ½ cup | green onions, chopped |
| 5 cups | bok choy, cut into ½-inch pieces |
| ¼ cup | vegetable stock |
| 2 tsp. | ginger root, minced |
| 1 tsp. | white sugar |
| 2 tbsp. | sesame seeds, toasted |
| 3 cups | quinoa* or rice, cooked |

*Quinoa is a grain, you may find it in a bulk food store.

In a large skillet or wok, heat oil over medium heat. Add garlic, carrots and green onions. Stir-fry for 3 minutes. Add bok choy and stir-fry for another 2 minutes. Stir in vegetable stock, ginger and sugar. Reduce heat and simmer for 5 minutes. Sprinkle sesame seeds over stir-fry. Spoon over quinoa or rice. Makes 2 servings.

Per serving: **324mg calcium**, 602 calories, 22g protein, 15g fat, 101g carbohydrate, 14g fibre.

Recipe from: *CalciYum*, by David & Rachelle Bronfman, Toronto, Bromedia Inc., 1999.