



Vegetarian Nutrition

a dietetic practice group of the



Academy of Nutrition and Dietetics

RD Resources for Consumers:

Meeting Calcium Recommendations on a Vegan Diet

Food Sources of Calcium for Vegans

There are many plant-based sources of calcium including certain leafy green vegetables, broccoli, some types of tofu, almonds, black beans, vegetarian baked beans, and blackstrap molasses. Vegans can also choose from among calcium-fortified foods including fruit juices, breakfast cereals, protein bars, and plant milks made from soy, almonds, rice, hempseed, and rice.

The calcium content of foods varies by brand and depends on processing. For example, tofu is an excellent source of calcium only when a calcium salt is used to coagulate or “set” the tofu. Likewise, while blackstrap molasses is a good source of calcium, regular molasses is not.

Oxalates, compounds found in some leafy green vegetables, can inhibit absorption of calcium. Beet greens, Swiss chard, rhubarb, and spinach contain abundant calcium but are high in oxalates. Therefore, they are not good choices for meeting calcium needs. The calcium in other leafy greens, such as collard, kale and mustard greens, is absorbed at very high rates. These foods are good sources of calcium.

The calcium in non-dairy milk alternatives made from soy, almonds, rice, and hempseeds is also well absorbed. It is important to shake the container of plant milk well before using it since the calcium often settles.

Sample Menu Providing 1000 mg of Calcium

Breakfast

- ½ sesame seed bagel with 2 tbsp almond butter
- 1 cup melon cubes
- 8 oz calcium-fortified orange juice

Lunch

- 1 6-inch pita pocket
- ½ cup hummus
- Sliced tomato and cucumber
- Apple
- Vanilla wafers

Snack

- Smoothie: ½ cup fortified plant milk with ½ cup frozen strawberries

Dinner

- Stir fried vegetables with ½ cup calcium-fortified firm tofu, ½ cup bok choy, ½ cup broccoli, onions, and carrots
- 1 cup brown rice
- ½ cup frozen non-dairy dessert with sliced peaches

tip

A registered dietitian nutritionist (RDN) can help you develop a healthy vegan eating plan that meets your needs. To find an RDN in your area, visit www.eatright.org.

Calcium Content of Foods

300 mg of calcium

Orange juice or vegetable juice, calcium fortified, 8 ounces

Plant milk (soy, rice, hempseed, almond or cashew milk), fortified, 8 ounces

Calcium-fortified energy bar

200 mg of calcium

Apple juice, calcium-fortified, 8 ounces

Blackstrap molasses, 1 tablespoon

Collard greens, ½ cup cooked

Tofu, calcium-fortified, ½ cup

Calcium-fortified breakfast cereal, dry, 1 ounce

100 mg of calcium

Turnip greens, kale, or broccoli, ½ cup cooked

Soybeans, ½ cup cooked

Soynuts, ½ cup

Instant oatmeal, 1 package

Dried figs, 5 each

75 mg of calcium

Almond butter or tahini, 2 tablespoon

Textured vegetable protein, ½ cup prepared

Bok choy or mustard greens, ½ cup cooked

Tempeh, ½ cup

50 mg of calcium

Chickpeas, navy beans, great northern beans, or black beans ½ cup cooked

Vegetarian baked beans, ½ cup

Orange, 1

Almonds, 2 tablespoon

Instant Cream of Wheat, 1 package

See USDA's Nutrient Data Base for Standard Reference <http://www.nal.usda.gov/fnic/foodcomp/> for more information on the calcium content of foods.

Advantages of Getting Calcium from Plant Foods

Plant sources of calcium may have some unique benefits. The leafy green vegetables that are good sources of calcium are also rich in vitamin K. This nutrient supports healthy bones. Potassium and vitamin C are other nutrients found in fruits and vegetables that support healthy bones. For these reasons, diets high in fruits and vegetables are important for keeping bones healthy. When picking juice, choose 100% fruit juice with added calcium.



Calcium Needs of Vegans

Many factors affect calcium needs and bone strength. Across cultures, variations in lifestyle and genetics play an important role in bone health. The overall diet can affect calcium needs as well. High sodium intake, alcohol, and smoking can be harmful to bone health.

Some evidence shows that vegetarians who eat more protein-rich foods have better bone health. Beans, soy, and meat analogues can be important parts of a diet to protect bones. Vitamin D is also important for bones.

There is very little research on the bone health of vegans, but studies suggest that vegans who have low calcium intakes are more likely to have poorer bone health and a higher fracture risk. Vegans have the same calcium requirements as omnivores. It is important for everyone to meet the recommended intake of 1000 mg/day for individuals ages 19 to 50 years and 1200 mg/day for those over the age of 50.

