

Osteoporosis Canada



Remember: You can live well with osteoporosis!

June 14, 2017

# Vegan and Vegetarian Diets: Are They Healthy Diets for Those Living with Osteoporosis?

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### Fracture Fact:

While calcium and vitamin D are vital, protein and other minerals and trace elements are also necessary for building and maintaining healthy bones. Vegan and vegetarian diets are becoming increasingly popular nowadays because our society is more conscious of the potential benefits (lower rates of coronary heart disease, obesity and diabetes), and because of concerns about animal welfare. These diets may sound very healthy, but are they?

A great deal of research has gone into trying to answer this question. It has been well documented that diets rich in fruits and vegetables are associated with a lower risk of coronary heart disease, and lower rates of obesity and diabetes. However, this fact by no means makes them the ideal diet for people concerned about osteoporosis.

Vegan and vegetarian diets may lack certain vitamins, minerals and trace elements. Zinc, copper and manganese are essential trace elements in the building and maintenance of healthy bones, and the mineral calcium is, of course, vital. Although all of these are found in fruits and vegetables, the amounts are not adequate for bone health. Some dark green, leafy vegetables such as spinach are loaded with calcium, but this calcium is difficult to absorb because they contain oxalates. Oxalates are naturally occurring substances found in many fruits and vegetables that bind calcium firmly so that only a small amount is actually absorbed in the body. Broccoli is another vegetable that contains calcium, and it has a much lower oxalate content than spinach. However, to get the calcium equivalent of one glass of milk you will need to eat about 5 cups (one cup of cooked broccoli has 66mg of calcium; a glass of milk has 300mg).

These diets have other deficiencies as well, such as vitamins D and B12.

One study examined nutritional deficiencies in 190 people with regular diets, 188 with vegetarian diets and 191 with vegan diets. Results showed that one person

with a regular diet, 50 vegetarians and 150 vegans had a B12 deficiency. These deficiencies have implications for general health, depression and other disorders. Vitamin D deficiency can have serious consequences for bones, as vitamin D is essential for the absorption of calcium. It is difficult for all Canadians, not just those who are vegan or vegetarians, to get enough vitamin D; therefore, Osteoporosis Canada recommends routine daily supplementation of vitamin D all year round for Canadian adults.

What can you do to optimise your bone health if you prefer a vegetarian or vegan diet?

Look at all the pros and cons. What can you do to prevent dietary deficiencies? Of course, supplements will help, and many fortified foods and beverages also exist. With careful planning, you can still get all the nutrients you need but first it is best to consult your doctor, healthcare provider or a dietitian who will guide you to an approach that is best for you to ensure that you get all the nutrients you need.

A healthy diet should include:

Protein	Fish, meat, poultry, dairy, eggs, nuts and beans
Some fat	Animals fats in moderation, nuts, dairy and oils
Carbohydrates	fruits, vegetables, whole grains, beans and legumes (kidney
	beans, white beans, lentils, chickpeas)
Vitamins	A, B, C, D, E and K
Minerals	Calcium, potassium and magnesium
Trace elements	Mangenese, copper, iron and zinc

Fluids such as water or juices are also very important.

Vegans do not consume dairy products but there are a number of alternatives such as fortified beverages that provide about the same amount of calcium as a glass of milk. The calcium content of some fortified beverages:

Orange juice	1 cup = 310mg
Soy beverage	1 cup = 320mg
Almond beverage	1 cup = 312mg
Rice beverage	1 cup = 319mg
Coconut beverage	1 cup = 177-223mg
Cashew beverage	1 cup = 220-330mg

The calcium content of some dairy products:

Powdered milk	4 Tbs	=	300mg
Buttermilk	1 cup	=	370mg
Milk: skim, 1%, 2%, whole	1 cup	=	290-320mg
Goat's milk	1 cup	=	345mg
Yogurt drink	200ml	=	190mg
Plain yogurt	<sup>3</sup> ⁄4 cup	=	260-275mg
Cheese: cheddar, mozzarella, gouda	50mg/1 ½ oz	=	252-366mg

If you are in need of a more comprehensive list of the calcium content of different foods, please go to <u>http://www.osteoporosis.ca/osteoporosis-and-you/nutrition/calcium-requirements/.</u> You can also access our Nutrition fact sheet at <u>http://www.osteoporosis.ca/wp-content/uploads/OC\_Nutrition\_October\_2012.pdf</u>. The best way to get your calcium is through food. If this is not possible, do talk to your healthcare provider about supplementation.

So with careful planning and the help of those who have the knowledge to guide you, you can still live well with osteoporosis even on vegan and vegetarian diets!

### We Welcome Your Feedback

- Have a question?
- Is there an osteoporosis-related topic that you would like to see featured in the newsletter?
- Looking for a great volunteer opportunity?

Please contact us by calling Osteoporosis Canada's toll-free number **1-800-463-6842** or emailing <u>copn@osteoporosis.ca</u>.

## **COPN Executive Walks the Talk on Mother's Day!**

On Mother's Day, the COPN executive, with the support of family and friends across the country, took their first steps in *walking the talk* for healthy bones. In remembrance of the Eleanor Mills Boney Express – go to <u>http://www.osteoporosis.ca/wp-content/uploads/coping may 11 2012.pdf</u> for more on the Boney Express - and with the purpose of motivating the COPN membership to *get moving for healthy bones*, 29 participants took to the parks, golf courses, neighbourhood streets, conservancy parklands and even a climbing wall.







Keep in mind that Father's Day is another occasion when you can engage family and friends in being active for healthy bones and share your experience on social media. Watch for further updates on COPN's *get moving for healthy bones* initiative and connect with us on Facebook and Twitter.

### BC's First Fracture Liaison Service (FLS) at Peace Arch Hospital in White Rock

The Peace Arch FLS is a 3i (Identify, Investigate, Initiate) FLS model delivering appropriate osteoporosis care to the fragility fracture patients seen within the hospital's orthopaedic outpatient clinics. Within the first year, the FLS had already shown huge improvements in patient care: the rate of osteoporosis treatment and /or referral to an osteoporosis specialist for specific complex indications in high risk patients went from 22% pre-FLS to 76% post FLS, a truly remarkable accomplishment in such a short time span and could not have been achieved without the committed support of the local orthopedic surgeons.



Congratulations to Dr. Singh and her FLS team for their on-going efforts and success. And kudos to the healthcare administrators for recognizing and supporting such an effective program! To read more, go to <u>www.osteoporosis.ca</u>.

### Spotlight on St. Michael's Hospital, Osteoporosis Exemplary Care Program (OECP)



The Osteoporosis Exemplary Care Program (OECP) at St. Michael's Hospital in Toronto, Ontario has been a leader in the FLS movement in Canada and worldwide. OECP was founded in 2002 by Dr. Earl Bogoch, orthopaedic surgeon at St. Michael's Hospital in Toronto, and was the first FLS in Canada.

Under Dr. Bogoch's leadership, the OECP/FLS at St. Michael's

is dedicated to closing the post-fracture care gap. The FLS manages 350 to 450 fracture patients annually. To read more, go to <u>www.osteoporosis.ca</u>.

# **FUNNY BONE:**

Only Irish coffee provides in a single glass all four essential food groups: alcohol, caffeine, sugar and fat. – Alex Levine

# A Recipe from our Sponsor

Grilled Swiss cheese sandwich with asparagus

Course: *Main Dishes* Preparation Time: 15 *mins* Cooking Time: 15 *mins* Yields: *4 servings* 

2/3 milk product serving(s) per person

Calcium: 29% DV/ 317 mg



### Preparation

In a large saucepan, cook asparagus in salted boiling water for 2 min. Drain.

Spread Gouda asparagus pesto over 4 slices of bread and top each one with 2 cheese slices.

Add asparagus, alternating green and white, placing the tips in one direction and then the other. (If the asparagus stems are too thick, cut in half lengthwise).

Cover with remaining slices of bread. Butter outside of sandwiches, and cook in a skillet on medium heat for 4–5 min on each side.

Cut each sandwich into quarters and serve with a green salad, if desired.



#### **Nutrition Tip**

Enhance the nutritional value of your sandwiches, green salads and pasta by adding cheese.

For more information about this recipe: https://www.dairygoodness.ca/getenough/recipes /grilled-swiss-cheese-sandwich-with-asparagus

### Ingredients

1 bunch of green and/or white asparagus (about ¾ lb − 350 g), trimmed 1/4 cup (60 mL) homemade Gouda asparagus pesto 8 slices of whole wheat bread 4 oz (120 g) **Canadian Swiss**, cut into 8 slices **Butter** at room temperature

#### Tips

**Did you know?** White asparagus grows underground, without light, and has a more delicate taste than green asparagus.

**Cheese alternatives:** Canadian Provolone, Aged Cheddar.

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