

## COPN NEWSLETTER

*Remember: You can live well with osteoporosis!*

### Questions and Answers:

#### **Vitamin K**

**Q.** I've read recently that studies are showing vitamin K is an important nutrient in the prevention of osteoporosis. If so, what are the recommended intakes of vitamin K and how do I get it in my diet?

**A.** Vitamin K is a family of compounds, divided into vitamin K1 (made from plants) and vitamin K2 (made from bacteria in our intestinal tract). It is usually the vitamin K1 form (also call phyloquinone) that is found in foods, especially foods of plant origin. Vitamin K2 (called menaquinones) can be absorbed from our gut or we can ingest them from animal-based or fermented foods. Before talking about food sources of vitamin K let's review the evidence for its involvement in bone. In 2002, Osteoporosis Canada's Clinical Practice Guidelines for osteoporosis indicated there was not enough evidence to recommend vitamin K for prevention or treatment of osteoporosis. Since then, there have been several studies, but none conclusive, that vitamin K might improve bone density. Additional research is required to indicate whether vitamin K should be recommended for osteoporosis treatment or prevention.

Given some uncertainty in vitamin K's role in bone, it is prudent to ensure one is getting the recommended intake level, which is 120 micrograms for adult men and 90 micrograms for adult women. Foods with the highest amount of vitamin K (>100 µ / 100 g) are leafy green vegetables such as salad greens, kale, spinach and romaine lettuce. Good sources include members of the brassica family of plants, (turnip, broccoli, cabbage) as well as canola oil, asparagus and legumes. Following Canada's Good Guide, or any other well-rounded dietary advice that focuses on fresh vegetables and legumes, will allow you to easily meet daily recommendations. It should be noted that vitamin K cannot be included in multivitamin supplements in Canada. Indeed, before getting too enthusiastic about vitamin K intake, be sure you have checked with your physician about blood clotting medication for you or family members (such as coumadins and warfarin) as these drugs are intended to prevent too much blood clot formation by inhibiting vitamin K's actions in the liver.

Reviewed by Susan Whiting PhD,  
Professor and Assistant Dean,  
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University of Saskatchewan.

Funny Bone: continued from last issue

Now that I'm 'older' (but refuse to grow up), here's what I've discovered:

- ~ The only time the world beats a path to your door is when you're in the bathroom.

- ~ If God wanted me to touch my toes, he would have put them on my knees.
- ~ When I'm finally holding all the cards, why does everyone decide to play chess?
- ~ It's not hard to meet expenses... they're everywhere.
- ~ The only difference between a rut and a grave is the depth.
- ~ These days, I spend a lot of time thinking about the hereafter ...I go somewhere to get something and then wonder what I'm here after.

**Remember:** It is important for you to eat a **healthy diet**, get some appropriate **exercise**, take your **calcium and vitamin D** and if your doctor has prescribed a **medication** don't forget to take it as directed.

COPN Newsletter will come to you every second Friday. We hope you enjoy it and find the information useful. In the next few issue we will be running a series of questions and answers. COPN would like to know what is going on in your area that would be of interest to people living with osteoporosis. E-mail us at [copn@osteoporosis.ca](mailto:copn@osteoporosis.ca).

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Questions and Answers:

### Supplement Test

**Q.** Someone told me to drop my calcium supplement into a glass of vinegar to test how easily it will dissolve. Apparently, if it doesn't dissolve quickly, its absorption can be reduced by 70 per cent. Do you know anything about this test, or other ways to determine the "absorption" rate of calcium supplements?

**A.** Every medication should have four characteristics of quality: purity (no contaminants,) strength (the amount in the tablet is accurate), ability to disintegrate (if a tablet or capsule), and ability to dissolve. Fortunately in Canada, our medications are of the highest quality. However, if the tablet is so tightly packed or coated in a material that doesn't allow the tablet to disintegrate, the calcium won't be absorbed.

The vinegar test was invented to test disintegration of calcium tablets. Vinegar is a good mimic of the small amount of hydrochloric acid that is present in the stomach. One places about half a cup of vinegar in a measuring cup or glass and carefully drops the tablet into it, noting the time. The tablet should disintegrate within 30 minutes with only a gentle swirling of the cup or glass now and again. If by 30 minutes, the tablet is still whole or has only partially broken apart, return the bottle for a replacement. Chewable and liquid supplements do not pose this problem, calcium supplements in a tablet form can be preferred by people who dislike the taste; they are also more economical. Using the vinegar test lets you gauge whether they are working for you.

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Professor and Assistant Dean,  
College of Pharmacy & Nutrition,  
University of Saskatchewan

### Funny Bone: continued from last issue

Now that I'm 'older' (but refuse to grow up), here's what I've discovered:

- ~ It is easier to get older than it is to get wiser.
- ~ Some days you're the dog; some days you're the hydrant.
- ~ I wish the buck stopped here; I sure could use a few...
- ~ Kids in the back seat cause accidents.
- ~ Accidents in the back seat cause kids.

It's hard to make a comeback when you haven't been anywhere.

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