

Remember: You can live well with osteoporosis!

All About Calcium (Part 2)

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Fracture Fact:

Excess dietary calcium cannot hurt you, but excess calcium from supplements may be harmful to your health.

[Upcoming Virtual Education Forums](#)

Save the dates:

September 25, 2013

Nutrition and Osteoporosis

October 16, 2013

Medications and Treatment

November 8, 2013

Men and Osteoporosis

This article first appeared in our May 2, 2011 COPING Newsletter

In our last issue of COPING (July 19), we discussed the importance of calcium and encouraged everyone to get the calcium they need from foods. This, however, may not always be possible. For those who cannot get all the calcium they need from their diet, we have dedicated this issue to calcium supplements – how to know if you need one, how to choose one, and possible interactions with some common medications.

HOW DO I KNOW IF I NEED A CALCIUM SUPPLEMENT?

Extra *dietary* calcium is not harmful. However, getting more calcium than you need from *supplements* may be harmful. Excess calcium from *supplements* has been associated with kidney stones, heart problems, prostate cancer, constipation and digestive problems. **Do NOT take extra calcium from supplements if your diet is already giving you enough calcium.**

If you are not getting or cannot get the recommended amount of calcium for your age from your diet, or if you are not certain if your diet is giving you enough calcium, then you should discuss whether you need to take a calcium supplement *with your doctor*. You should not just arbitrarily take a calcium supplement on your own.

WHEN YOUR DOCTOR ADVISES YOU TO TAKE A CALCIUM SUPPLEMENT

If you find it difficult to obtain the recommended amount of calcium through diet alone, your physician may recommend a combination of foods rich in calcium and a calcium supplement as a good strategy for you. Calcium supplements are tablets, capsules or liquids containing the mineral calcium from a non-food source. Many brands of calcium supplements are available. When making a choice, take the following factors into consideration:

1) THE AMOUNT OF CALCIUM PER TABLET OR DOSE The product label should state the amount of elemental calcium in each tablet e.g., 300 mg of elemental calcium in a 750 mg tablet of calcium carbonate. The amount of elemental calcium is what should be used to calculate the calcium intake from a supplement.

2) PRICE More expensive preparations are not necessarily better. The cost will vary among brand name products and similar generic supplements, and may also vary with the amount of elemental calcium per tablet. Compare brands and prices.

3) SIDE EFFECTS For some, calcium supplements may cause stomach upset, constipation or nausea. Try different brands or forms, e.g., gelatine capsules,

chewable calcium, effervescent tablets, or ones containing magnesium, to find a suitable product for you. **Calcium citrate may be a good alternative to calcium carbonate** as some individuals find it easier to tolerate.

4) SAFETY Specific Canadian standards have been established for lead content, quality, and disintegration. Any product with a DIN (Drug Identification Number) or NPN (Natural Product Number) number has passed these tests. If you have any doubts, ask your pharmacist to recommend a good calcium supplement for you.

5) TABLET SIZE Some calcium tablets are very large and may be difficult to swallow. If this is a problem for you and you can't see the tablet through the bottle, ask your pharmacist or sales person about tablet size. You may wish to inquire about chewable or effervescent tablets or calcium in a gelatine capsule form. In addition, calcium tablets that also contain vitamin D tend to be larger in size. If size matters to you, take your calcium and vitamin D separately rather than in a combined form.

6) HOW TO TAKE A CALCIUM SUPPLEMENT To maximize the absorption of calcium:

1. Take calcium carbonate with food or immediately after eating. It is absorbed more effectively when there is food in the stomach. Calcium citrate, calcium lactate and calcium gluconate are well absorbed at any time.
2. Take calcium with plenty of water.
3. Take no more than 500-600 mg of elemental calcium at one time. In fact, it is best to take smaller doses more frequently rather than large doses once a day.

4. Antacids are an acceptable source of calcium. The calcium in these products is calcium carbonate and so should be taken with food for better absorption.

7) BE SURE ABOUT YOUR DOSE OF SUPPLEMENTAL CALCIUM Only take a calcium supplement if your doctor has advised you to do so. Unless you are very confident that you are taking the correct dose, show your bottle of calcium to your doctor or pharmacist to be sure that you are not taking too much calcium, which may be harmful. If you change the brand of calcium supplement you are taking, you may need to show the new bottle to your doctor or pharmacist again, to make sure that your dose of calcium has not changed.

Calcium supplements should not be used if you have any condition where the blood calcium levels tend to be high, such as an overactive parathyroid gland. Individuals who are on dialysis or have severe chronic kidney disease should consult their physician before taking calcium supplements.

8) BE AWARE OF INTERACTIONS BETWEEN CALCIUM SUPPLEMENTS AND PRESCRIPTION DRUGS

Because calcium can interfere with the absorption of several other drugs, the following **table** provides guidance on when to take your calcium supplements in order to avoid any adverse interactions with other medications. It is important to tell your doctor about all prescription medications and non-prescription supplements that you are using. Do not start or stop any medicine without the approval of your doctor or pharmacist.

Drugs That Interact with Calcium Supplements	When to take Calcium Supplements
1. Bisphosphonates (for osteoporosis)	At least 2 hours after taking a bisphosphonate
2. *Digoxin (for heart conditions)	Consult with your physician
3. Antibiotics: ciprofloxacin, levofloxacin, norfloxacin, ofloxacin, doxycycline, minocycline and tetracycline	2-4 hours before or after taking the antibiotic
4. Antibiotic: gentamicin	Consult your physician as this may increase toxic effects on the kidneys
5. Anti-seizure medications: phenytoin (Dilantin®), carbamazepine (Tegretol®)	At least 2 hours after taking anti-seizure medication
6. Iron supplements	At least 2 hours after taking iron supplements

*High levels of calcium may increase the risk of a toxic reaction to **digoxin**. On the other hand, low levels of calcium cause digoxin to be ineffective. If you take digoxin, your doctor should monitor your calcium levels closely.

The Bottom Line

If you are one of those people who take prescription medications that may interact with calcium, and find the proper timing of taking your medications and calcium is difficult or complicated to organize, there are several ways that you can address this issue. One is to speak to your doctor or pharmacist about possible drug interactions between your calcium supplements and all your prescription and non-prescription medications. A simpler and safer alternative may be to redouble your efforts to get all the calcium you need from your diet. Talk to your doctor or a nutritionist if you need more guidance on how to get all of the necessary calcium from food alone.

FUNNY BONE: A sign on a tow truck said, “We don’t want an arm and a leg, just your tows.”

A Recipe from our Sponsor Instructions

Fresh Tomato and Pesto Penne with Parmesan



In large saucepan, cook penne according to directions on package; drain immediately and return to saucepan.

Whisk flour into **milk** and pour over pasta in pan. Stir in pesto; cook over medium heat, stirring, for about 5 min or until sauce is thickened. Season with salt and pepper. Stir in tomatoes and serve sprinkled with **Parmesan cheese**. Garnish with fresh basil.

Tips

Look for prepared basil pesto in the refrigerated section of the grocery store with the fresh pastas or in jars with the tomato pasta sauces. Make sure basil is the first ingredient in the list on the label.

For the Adventurous: Add 1 19 oz can (540 mL) chickpeas, drained and rinsed, with pesto. Add 1 cup (250 mL) mini or quartered bocconcini cheese and 1/3 cup (80 mL) slivered fresh basil with tomatoes.

For more information about this recipe:

<http://www.dairygoodness.ca/getenough/recipes/fresh-tomato-and-pesto-penne-with-parmesan>

Course: *Main Dishes* Preparation Time: *5 min*
Cooking Time: *15 mins* Yields : *4 servings*
3/4 milk product serving(s) per person

Preparation

12 oz (375 g) penne or other short pasta
2 tbsp (30 ml) all-purpose flour
2 cups (500 ml) **milk**
1/3 cup (80 ml) prepared basil pesto
1/2 tsp (2 ml) salt
1/4 tsp (1 ml) pepper
2 cups (500 ml) grape or cherry tomatoes, halved
Freshly grated **Canadian Parmesan cheese**
Fresh basil leaves

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These newsletters are not intended to replace individualized medical advice. Readers are advised to discuss their specific circumstances with their healthcare provider.

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