

You Can Do It! LLC

Welcome to January!

Wow, it's 2008 already! Do you remember the Y2K fiasco eight years ago when people feared the new millennium? Seems like ancient history ...

Perhaps 2008 begins a new journey for you. It definitely does for me! When I turned 50 in 2007, I woke up on my birthday and knew there was something else waiting for me. I realized I'd lived maybe half my life already, and knew I had a lot left; I wasn't anyplace near the end – so why stop? After talking to several people and doing some website research, I came up with the plan to become a nurse! Wow... I never thought I'd do that. Oh well, you know the saying, "never say never!"

What led me to this decision? The main reason is the education I will receive as a pre-nursing and nursing student. I am jazzed about learning more about the body, because the more I learn, the better I can help you! There is so much to know about the body, and that volume of knowledge is only going to grow as the years go by.

The plan right now is to get my pre-requisites completed at RCC in Medford and then decide where I'll go to nursing school. My top choice is the accelerated program at OHSU in Portland, starting summer 2009.

By adding school to my schedule, my workload increases, so I ask for your flexibility regarding changes that might affect you. For example, newsletters may cease for a while, even though I do have a topic for the next newsletter. However, I will continue to teach most of my classes. You can check the schedule on the website for any class changes:

- Go to www.youcandoitnow.net
- Click **Schedule**.

So, have a great New Year and enjoy the final article in our osteoporosis series!

Carol Lee

PS. As I send this email to you, I am in the second week of the quarter at RCC in Medford. I can report it's fun to be a student again – a lot of focused work and effort!! My attending college is the same as you accomplishing the fitness goals you set for yourself. Woody Allen says 80% of success is walking in the door. My 80% success is going to class with an intention to learn. What is your intention this year?

Table of Contents

Remember My New Email Address	2
Don't Forget the DVDs for the New Year!	2
Updates and Happenings	2
January 2008	2
To Clarify	3
Osteoporosis ... The Silent Killer: Part 4 (the end)	3
Overview of Calcium Nutrition.....	3
Calcium Absorption and Excretion	4
Different Calcium Needs.....	5
Does your Supplement Dissolve?.....	5
Facts About Calcium	5
Vitamins and Minerals.....	6
Foods for Life.....	8

Remember My New Email Address

I guess I still need to remind everyone to use my NEW email address for correspondence:

CarolLee@YouCanDoItNow.net

(for convenience, you can type it all lower-case if you want)

Make sure your messages reach me by using the new email address. Thanks!

Don't Forget the DVDs for the New Year!

This year, give your friends and family the gift of health—give them my new DVD, *Building Bones Step by Step for Osteoporosis Prevention*. It stars me, along with two students from my Building Bones Step by Step classes.

If you know someone (including yourself) who's worried about osteoporosis and wants to strengthen her bones, buy this DVD today. When you purchase a DVD, you'll get all the benefits of my regular Building Bones Step by Step class ... in the privacy of your home!

To purchase a DVD, contact Carol Lee at: CarolLee@YouCanDoItNow.net or 541-482-1887

Updates and Happenings

January 2008

- One-on-one personal training continues:
 - Mondays at BFS
 - Wednesdays at your place or my office
 - Fridays at the Ashland YMCA
- To schedule a training session:
 - Call me at: 482-1887
 - -OR-
 - Email me at: carollee@youcandoitnow.net
- Yoga and Stretching classes are ongoing:
 - Monday and Wednesdays at Baxter Fitness Solutions (new days)
 - Mondays, Wednesdays, and Fridays at Mountain Meadows
- Building Bones starts again on Monday, Feb 4 at the usual 8:00 – 8:55 AM time at the Grove. Email or call for more information.
- Nordic Walking currently occurs on a on-demand basis. That means you must call to schedule a class.

See our new Website for January schedule details:

http://www.youcandoitnow.net/class_schedule.shtml

To Clarify ...

In my previous newsletter, I talked about “taking a break” and “resting” when I discussed workouts. I’d like to clarify what I meant, since some readers were a bit confused about the terms.

A **break** refers to a day when you do NOT do any resistance training. A **rest day** refers to a day when you do no exercise at all, neither cardiovascular, nor resistance. The explanation below should help you understand the difference.

It’s a good idea to exercise six times a week. Your exercise can include both cardiovascular and resistance training; however, resistance training should usually not be done on consecutive days. Space out your resistance workouts so you have at least one full day between them. You need that **break** from resistance training for muscles to fully recover and have time to rebuild and get stronger.

For example, five or six days a week you might do various cardiovascular exercises, such as walking, running, treadmill, elliptical, bicycle, x-c skiing, or swimming. During that same time, two or three of your exercise sessions might include resistance workout such as machines, free weights, isometric exercises, etc. This means that on certain days you could do both cardio and resistance exercises, on other days resistance-only, and on other days cardio-only.

In addition to taking a break between resistance workouts, it is best for your health to give yourself at least one day of complete **rest** each week when you do NEITHER cardio, NOR resistance exercises. You can take a walk in the park for some fresh air.

Osteoporosis ... The Silent Killer: Part 4 (the end)

Earlier, in Parts 1, 2, 3 of our osteoporosis article series, we:

- Learned what osteoporosis is and how it works.
- Looked at factors that increase the risk of osteoporosis.
- Learned how hormones and exercise strengthen bones.

Now we come to the final part of our series and discuss the role nutrition plays in preventing the symptoms of osteoporosis. Most of this article deals with calcium, although other minerals are mentioned. We even include a food chart showing which nutrients are necessary for bone strength.

Overview of Calcium Nutrition

Nutrition is essential to build strong dense bones. Good nutrition:

- Keeps bone cells healthy and active.
- Supplies the important nutritional building blocks required to form the organic matrix of bone.
- Supplies the complex minerals that make up the finished, hardened component of bone.

Calcium is a very important component of good nutrition when it comes to building strong bones and preventing osteoporosis. Dr. Jill Steinsiek states:

"As we get older, we tend to lose bone and our bodies don't process nutrients as efficiently. An optimal diet for the prevention or treatment of osteoporosis includes an adequate intake of calories as well as calcium and Vitamin D, both of which are essential in helping to maintain proper bone formation and density."

A quote from the National Osteoporosis Foundation states:

"A high calcium intake will NOT protect you against bone loss caused by estrogen deficiency, physical inactivity, alcohol abuse, smoking, various medical disorders or medications known to cause bone loss. HOWEVER, inadequate calcium can contribute to the development of osteoporosis."

So, how much calcium do we need? According to the National Osteoporosis Foundation:

- Ages 31 – 50 need 1000 mg per day
- Ages 51 to 70, or older need 1200 mg per day
- A person with osteoporosis might need more than this.

How do we get 1000 or 1200 mg of calcium in our diet? Do we need to take supplements to receive as much as we need? I recently gave a talk at Mountain Meadows about calcium intake and asked the participants to bring containers of foods they eat.

I used these foods to organize breakfast, lunch and dinner meals. On the day of the talk, the participants sat in different locations according to their meal choices (breakfast, lunch or dinner). For the specified meal, they measured the portion size they would eat, read the label, calculated the amount of calcium in the serving, and determined whether or not they'd need calcium supplements to achieve 1000 to 1200 mg of calcium per day.

I encourage you to take a day or two and figure out how much calcium you are getting from the foods you eat. If you are taking calcium supplements, do you really need to take that amount or are you getting enough from the foods you eat?

Calcium Absorption and Excretion

Of course, there's more to getting enough calcium than meets the eye. Some foods interfere with calcium absorption. Foods high in oxalate, such as spinach, rhubarb, beet greens and almonds, interfere with calcium absorption. Food high in phytate, such as wheat bran and legumes (for example, pinto beans, navy beans, and peas) also interfere with calcium absorption. The calcium in legumes, pinto beans, navy beans and peas is half as available as calcium in milk. This means that if a cup of pinto beans has 250 mg of calcium, you actually only receive 125 mg of calcium from that cup of beans.

A diet high in animal protein, sodium, or caffeine can increase calcium excretion in the urine. Therefore you need more calcium. For example, if you drink a cup of coffee, offset calcium excretion from caffeine by drinking a glass of milk or other source of calcium. Still, this may not prevent bone loss, as evidenced by this quote from Dr. Jill:

"It is not clear if restricting caffeine or salt is helpful; these measures have not been proven to prevent bone loss in those who have a sufficient intake of calcium."

Different Calcium Needs

Calcium needs do vary with activity and lifestyle.

- Less than 700 mg of calcium daily may be adequate for a woman who is a vegan (someone who consumes no animal products), exercises 90 minutes a day, 6 days per week, does not drink coffee or colas, and does not smoke or eat salt.
- 1500 mg of calcium daily may be inadequate for a sedentary woman who smokes, drinks coffee and colas, and has a high meat and salt intake.
- Calcium supplements are usually required by individuals with lactose intolerance (those who experience symptoms of bloating and diarrhea because they cannot completely digest the milk sugar lactose), and by those who are vegan with NO exercise. Both groups tend to avoid or completely eliminate dairy products from their diets.

Does your Supplement Dissolve?

At the Mountain Meadows talk, I also conducted an experiment to determine whether participants' calcium supplements dissolved. After all, if the supplements don't fully dissolve in the stomach, the body cannot absorb the calcium in those supplements.

I used glasses of vinegar to simulate stomach acid, and asked each participant to put their supplement in the glass to see if it dissolved. In one case, an oyster shell tablet did not dissolve at all! This was a sad sight, considering the person who provided the tablet had been taking it for many years.

Facts About Calcium

Calcium is the most abundant mineral in the human body and has many important functions including nerve impulse transmission, blood coagulation, blood pressure, and muscle contractions. Calcium is a significant part of our bone mass. We get calcium from two sources: our food and our bones. If we get plenty of calcium in our diet, we don't have to draw from the supply in our bones. But if there's a chronic short supply of calcium in our food, our body will sacrifice our bones to get the calcium it needs.

To ensure you get enough calcium, here are three very important pieces of information from Dr. Jill:

1. Correctly determine the calcium content on a food label. Use the Percent Daily Value for calcium listed on the Nutrition Facts panel of a food label, then remove the % sign and add a zero to find the milligrams of calcium per serving.

For example: 30% Daily Value = 300 mg. This is the amount of calcium in an 8 fl oz of serving of skim milk. (**Note:** This only works with calcium.)

2. The body can best handle about 500 mg of calcium at one time, whether from food or supplements. It's important to consume your calcium foods and supplements throughout the day, rather than all at one time.
3. What kind of calcium should you take? **Calcium carbonate** is the least expensive form of calcium. However, it's soluble only in acid, meaning, it needs

acid to dissolve for efficient absorption. That's why you need to take calcium carbonate at mealtime when the stomach produces more acid.

Calcium citrate is soluble in water. The citrate form is also considered safer and better tolerated. It tends to be preferred by vegetarians and vegans since it is an animal-free source of calcium.

Here are some examples of calcium citrate and calcium carbonate supplements:

	Calcium Citrate	Calcium Carbonate
Common sources	Citracal	<ul style="list-style-type: none"> ▪ Tums, Oscal, Caltrate, Viactiv, CalBurst
When do you take it?	Can be taken any time during the day.	<ul style="list-style-type: none"> ▪ Must be taken with meals or snacks for best absorption.
Is acid required?	Does not require stomach acid for absorption.	<ul style="list-style-type: none"> ▪ Requires stomach acid for absorption. ▪ Do not take with antacids. ▪ Look for "USP" on label or box (confirms pill will dissolve in normal stomach acidity.)
What's the effect on the stomach?	Gentle on stomach.	<ul style="list-style-type: none"> ▪ May cause gas, constipation, bloating.

Remember:

- Always read the directions on supplement containers carefully. Some supplements may require more than one tablet to achieve the amount of calcium listed in the serving size.
- It's important to speak with your doctor about how much calcium to take – some people may need more than the 1000-1200 mg I mentioned!

Vitamins and Minerals

Calcium's not the only mineral in town when it comes to osteoporosis. Other minerals and vitamins play significant roles too. Most of these nutrients come from fruits and vegetables. We know from studies that people who eat plenty of fruit and vegetables, especially soy, have better bone health. We don't know why yet, but research is increasing.

Vitamin D

Vitamin D is an important part of your daily diet because it helps your body absorb calcium. Inadequate Vitamin D can contribute to low bone density, which in turn may increase your risk of fractures.

Sodium (salt)

For every 1 gram of sodium (salt) intake, you lose 15 mg of calcium! However, salt may not be bad for you if you have enough calcium

Potassium

Two studies have shown that women with diets high in potassium have denser bones in their spine and hips. The studies used 3500 to 6000 mg per day, which is not hard to do if you eat plenty of fruits – especially oranges and bananas, and vegetables and legumes. Dairy products contain moderate amounts of potassium. There is no research supporting potassium supplement for bone.

Magnesium

Magnesium is the fourth most abundant mineral in the body. Magnesium acts as an enzyme or catalyst. In effect, it acts as the glue that binds calcium and fluorine to build bone.

Tap water can be a source of magnesium, but the amount varies according to the water supply. Water that naturally contains more minerals is described as “hard.” “Hard” water contains more magnesium than “soft” water.

Research shows that people whose diets are rich in magnesium have denser bones. However, the evidence isn't nearly as strong for magnesium supplements. Some calcium supplements contain magnesium, as well as vitamin D. Though there is no harm in adding magnesium to your diet, we don't have the data to know that it's helpful.

- Most calcium supplements have magnesium added to them.
- Calcium without magnesium leads to constipation.
- Add calcium to magnesium in a 2 to 1 ratio. For example, take 500 mg calcium with 250 mg magnesium.
- More than 500 mg of magnesium daily can cause loose stools.

Warning: People with kidney disease may not be able to excrete excess amounts of magnesium. Therefore, they should not consume magnesium supplements unless prescribed by a physician.

Our final contribution to this article on nutrition is a helpful food chart of common foods and the vitamins and minerals they contain. It appears on the next page. Please use it as a daily reference!

Note: I would like to acknowledge and thank Dr. Jill Steinsiek, Cindy Powell, and the National Osteoporosis Foundation for their help in educating me so I could educate you about osteoporosis.

Foods for Life

This chart shows you various vitamins and minerals to include in your daily diet for health as well as strong bones and the foods that contain them.

- **DV = Daily Value.** This is a dietary reference to help you plan a healthy overall diet. We've included a DV for calcium only.
- **Dairy products** include tofu and soy milk, since they are often found in the dairy section of the store.

	Vegetables and Fruit	Grains	Dairy	Nuts, Oils, and Seafood
Calcium	<ul style="list-style-type: none"> ▪ Baked beans w/ sauce (1/2 c = 8% DV) ▪ Bok Choy (1 c = 74 mg) ▪ Broccoli w/cheese (1/2 c = 20% DV) ▪ Broccoli fresh (1 cup = 178 mg) ▪ Collards (1 c = 148 mg) ▪ Kale (2/3 c = 10% DV) ▪ Pork and beans w/ sauce (1/2 c = 6% DV) ▪ Turnip greens (1c = 198 mg) ▪ Carrots (1 c = 50 mg) ▪ Orange juice, calcium fortified (1 c = 30% DV) ▪ Raisins (1/3 c = 25 mg) 	<ul style="list-style-type: none"> ▪ Ready-to-eat cereal, calcium fortified (serving size varies, check label) ▪ Blackstrap molasses (1 tbsp = 80 mg) 	<ul style="list-style-type: none"> ▪ Frozen yogurt (1/2 c = 10% DV) ▪ Ice cream (1/2 c = 6% DV) ▪ Milk pudding (1/2 c = 10% DV) ▪ Milk, whole, 1% or 2% skim, and chocolate (1 c = 30% DV) ▪ Soy milk, calcium fortified (1 c = 30% DV) ▪ Tofu, prepared with calcium sulfate (3 oz = 60% DV) ▪ Yogurt (8 oz = 35% DV) ▪ Cheese (mozzarella, muenster, cheddar) (1 oz = 205 mg) ▪ Ricotta part skim (4 oz = 335) 	<ul style="list-style-type: none"> ▪ Almonds (1 oz = 75 mg) ▪ Filberts (1 oz = 50 mg) ▪ Poppy seeds ▪ Figs ▪ Shrimp, canned, drained (3 oz = 100 mg) ▪ Sardines, canned in oil, (with bones) (3 oz = 375 mg) ▪ Canned Salmon (with bones) (3 oz = 167 mg)
Vit. D	<ul style="list-style-type: none"> ▪ <i>Sunshine is the primary source of vitamin D</i> 	<ul style="list-style-type: none"> ▪ Fortified cereals 	<ul style="list-style-type: none"> ▪ Butter ▪ Cheese ▪ Cream ▪ Fortified milk ▪ Margarine 	<ul style="list-style-type: none"> ▪ Fish ▪ Oysters
Potassium	<ul style="list-style-type: none"> ▪ All vegetables ▪ Legumes ▪ Bananas ▪ Oranges 		<ul style="list-style-type: none"> ▪ Dairy products contain moderate amounts of potassium 	
Magnesium	<ul style="list-style-type: none"> ▪ Artichoke hearts, cooked ▪ Beans ▪ Beet greens, cooked ▪ Black beans, cooked ▪ Great northern beans, cooked ▪ Lima beans, baby, cooked from frozen ▪ Navy beans, cooked ▪ Okra, cooked from frozen ▪ Soybeans, green, cooked ▪ Soybeans, mature, cooked ▪ Spinach, canned or cooked from fresh ▪ White beans, canned 	<ul style="list-style-type: none"> ▪ Bran read-t-eat cereal ▪ Brown rice ▪ Buckwheat flour ▪ Bulgur, dry ▪ Oat bran muffin ▪ Oat bran, cooked ▪ Oat bran, raw ▪ Quinoa, dry ▪ Whole unrefined grains 	<ul style="list-style-type: none"> ▪ Soy beverage ▪ Tofu, firm 	<ul style="list-style-type: none"> ▪ Almonds ▪ Brazil nuts ▪ Cashews, dry roasted ▪ Hazel nuts ▪ Mixed nuts, oil roasted, w/ peanuts ▪ Peanuts, dry roasted ▪ Pine nuts, dried ▪ Pumpkin and squash seeds, cooked ▪ Haddock, cooked ▪ Halibut, cooked ▪ Pollock, walleye ▪ Tuna, yellow fin, cooked
Vitamin K	<ul style="list-style-type: none"> ▪ Broccoli ▪ Brussels sprouts ▪ Cauliflower ▪ Collard greens ▪ Kale ▪ Spinach ▪ Strawberries 		Soy products	<ul style="list-style-type: none"> ▪ Liver ▪ Vegetable oils: soybean and canola