



OSTEOPOROSIS NEWSLETTER

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Editor

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World Osteoporosis Day October 20, 2007

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World Osteoporosis Day (WOD) provides an all-important focal point for informing and educating the general public and policymakers about the prevention of a disease which still suffers from poor general awareness. This year's year long campaign theme will be 'Beat the Break': Know and reduce your osteoporosis risk. For more info see: iofbonehealth.org

Next B.O.N.E.S. Support Group Meeting

B.O.N.E.S. SUPPORT GROUP
will meet on
October 17th
Oakwood Village
Hebron Oaks
Chapel
6201 Mineral
Point Road
Madison

1:30-2:30 p.m.

Call 265-6410
for reservation.

To acknowledge World Osteoporosis Day, Dr Hector DeLuca is our distinguished speaker for our October 17th meeting. He became a Harry Steenbock research professor of biochemistry at the UW-Madison in 1965. His list of honors and awards fills most of a 11½ by 8½ sheet of paper! His latest honor is the CALS 2007 Distinguished Service Award. (CALS = College of Agricultural and Life Sciences)

Dr DeLuca is an internationally renowned expert in Vitamin D. The focus of his laboratory is the molecular function of vitamins and hormones and the metabolism of vitamins A and D. The research has led to the development of various forms of vitamin D3 which have been used for the treatment of osteoporosis, vitamin D dependency rickets and bone disease of kidney failure. The most recent application has been to prevent and arrest such autoimmune disease as multiple sclerosis and rheumatoid arthritis, and as an anti-transplant rejection drug.

The hormonal form of vitamin D serves as a developmental hormone as well as a hormone responsible for regulating calcium and phosphorus. It has also been found to be necessary for reproductive functioning for the immune system and bone remodeling.

The title of Dr DeLuca's talk is "Vitamin D: It's many benefits."

Exercise for Good Bone Health

Barbara Luedke, P.T., the speaker for the August 14th Bones meeting, shared information about exercises to promote good bone health.

Exercise will improve strength, posture and balance which will decrease the risk of falls and possibly decrease the risk of fractures. It is important to exercise regularly. If exercise ceases, the bone mass and muscle strength gains will be lost. The resistance must be above the level of normal activity to stimulate the bone.

Avoid prolonged or repetitive forward bending or twisting. Always maintain good body alignment and proper posture during daily activities, exercise program and walking. Bend from your hips (hip hinge), not from the waist.

We need weight bearing activities such as stair climbing, dancing, aerobics, yoga and Tai Chi for 30-40 minutes, 2-3 x/week. We also need progressive resistive exercises for 20-30 minutes, 2-3 x/week. Resistance needs to be progressive.

Resistance bands are good. An easy inexpensive way to make weights is to put water, sand or gravel in empty dishwashing liquid or vegetable oil bottles.

Caution: Avoid jumping, sit ups, crunchies, toe touches with knees extended, flexion and rotation movements while performing Pilates, Yoga, and Tai Chi and trunk flexion and rotation activities with exercise machines.

SIT TALL, STAND TALL, WALK TALL

Good posture is the proper alignment of the head, shoulders, trunk, hips and feet:

- Lift rib cage up and away from your pelvis.
- Slightly tuck your chin and attempt to bring your ears over your shoulders.
- Keep your head erect and look forward.
- Draw shoulder blades back and down slightly – “shoulder blade pinch”
- Gently tighten stomach muscles – “zip up” exercise.
- Keep your hips straight and buttockstucked under.
- Knees should be neither bent or locked, but rather “soft knees”.
- Feet should be shoulder/hip distance apart with toes pointed straight ahead.

P.T. Place: Raking the Leaves

By Barbara Luedke, Senior P.T.

Autumn is here, and for many of us, raking leaves is a necessary activity. Therefore, it seems wise to review the principles of safe movement to protect your back. The two most important precautions are to avoid forward bending and twisting movements of the back. Both these movements dramatically increase the compressive loads placed in the vertebral bodies of the spine. Always maintain good postural alignment by slightly pinching your shoulder blades together. Bend forward from your hips – the hip hinge principle.

DON'T

- Do not bend forward from your waist or back.
- Do not reach or twist.

DO

- Always keep your back straight.
- Stand with your feet apart, one foot ahead of the other and the knees slightly bent.
- As you rake, shift your weight from one foot to the other in a rocking motion.
- Hold the rake close to you and bend from your hips.
- Change directions by

lifting and moving your feet not by twisting your body.

Rake leaves onto a blanket or tarp to transport them to the curb. This method eliminates the repetitive forward bending required to stuff leaves into a bag.

Stop before you become tired. Muscle fatigue may cause pain and increase the risk of injury.

NOTE: Use these same movement principles when vacuuming, sweeping or mopping.

Nutrition Notes: Benefits of Soy

As rich sources of complete protein, soy foods can help promote bone health. In addition, the calcium in fortified soymilk is well absorbed and the skeletal effects of soy isoflavones are of interest.

In an article from the September 12, 2005 issue of the Archives of Internal Medicine, it was noted that postmenopausal women who took in high levels of soy protein on a daily basis, reduced their risk of bone fracture by one third. The study was reported from Vanderbilt University School of Medicine and reported findings as part of the Shanghai Women’s Health Study. The Vanderbilt component was approximately one third of the total 75,000 Chinese women between ages 40 and 70 years, followed from March 1997 to May 2000. The finding indicates that the impact of soy consumption is felt most during the early years following menopause.

Over 30 clinical trials have examined the effects of isoflavone-rich soyfoods or isoflavone supplements on bone mineral density in postmenopausal women. Generally, these studies indicate reduced bone loss in response to isoflavone exposure. Three large, long-term clinical trials examining soy’s ability to prevent bone loss are underway, funded by the U.S. government at a cost of more than \$10 million.¹

Another research project is being done by the U.S.D.A. It is called “Osteoporosis Prevention Using Soy” or “OPUS”. This study hopes to show that the isoflavones in soy help prevent bone loss and alleviate the effects of menopause in postmenopausal women.²

Soybeans are very nutritious. Soy protein is the only plant protein equivalent to animal protein because it contains all of the essential amino acids. Soybeans also are the only natural food source of isoflavones. When consumed, they have estrogen-like effects and are believed to contribute to soy’s protective health properties.²

There are many soy foods in supermarkets. The dairy section has soy milk, soy yogurt and soy cheeses. Soy-based cereals and breakfast bars can be found in the cereal aisle. In the frozen foods section, there are edamame (soybeans) and soy chicken patties, hamburgers, sausage and various other meat alternatives. The health foods section and the ethnic foods section might also have soy products. The fresh food area may have fresh edamame and tofu.

Enjoy trying some of the many soy products to consider:

- Edamame (ed-ah-MAH-may), or green vegetable soybeans, are sweet

tasting and can be served as a snack or vegetable side dish. They are prepared by boiling them in slightly salted water for 10 to 15 minutes. You can buy them in the pod or shelled. Green soybeans are high in protein and fiber and contain no cholesterol.

- Soy nuts have lots of protein and isoflavones. They are a great addition to salads and other foods. Soy nut butter has a slightly nutty flavor and much less fat than peanut butter.²
- Tofu (toh foo), also known as soybean curd, is a cheese like product. It has a bland taste by itself but easily absorbs flavors when cooked with other foods. Tofu is rich in high quality protein and B vitamins. It comes in three varieties: firm, soft and silken. The firm tofu is higher in protein, calcium and fat than the other varieties.

For recipes and additional information, see www.soybean.org.

1. “Soy for Health” (www.soybean.org)
2. “The Health Benefits of Soy Foods” (http://fcs.tamu.edu/food_and_nutrition/pdf/Soy.pdf)

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Please mark your calendar for the November 13th BONES meeting which will feature a fashion show from 1:30-2:30 p.m. in the Oakwood Village West auditorium.

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RECIPE FILE

Butternut Squash Pilaf

2 tsp. olive oil	2 cups vegetable or fat-free, reduced-sodium chicken broth
1/2 cup minced onion	3 cups peeled and diced butternut squash
2 garlic cloves, minced	2 Tbsp. chopped fresh parsley
1 cup brown rice	1/2 cup dried cranberries
1/4 cup slivered almonds	Salt and freshly ground pepper to taste
1 tsp. ground cumin (optional)	
1 tsp. dried oregano	

In medium saucepan, heat oil over medium-high heat. Add onion and sauté 2 minutes, until soft. Add almonds and cook 1-2 minutes, until golden. Add rice, cumin and oregano and stir to coat. Add broth and bring to boil. Reduce heat to low, cover and cook 30 minutes. Add squash. Continue cooking for 15-20 minutes or until rice is completely cooked and squash is tender. Remove from heat and stir in parsley and

cranberries. Season with salt and pepper to taste.

Makes 6 servings. Per serving: 201 calories, 5 g total fat (<1 g saturated fat), 35 g carbohydrates, 5 g protein, 4 g dietary fiber, 199 mg sodium.

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