



# OSTEOPOROSIS NEWSLETTER

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Editor

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## Search for Osteoporosis Genes

For the first time ever, Genome-wide investigated,” he said. an extensive genome-genotyping, a very “The next step will be wide search has demanding and labor-identifying what those been undertaken to intensive procedure, genes are and how find the genes linked measures genetic they might contribute to osteoporosis and variations called ‘Snips’, to our understanding fracture. There are within each of our of osteoporosis and 30,000 genes in the 30,000 genes,” said its prevention.” The human genome, but Garvan’s Associate discovery of genes until now few have been Professor Tuan Nguyen, linked to osteoporosis unequivocally linked to who has been involved will allow researchers osteoporosisandfragility with the Dubbo project to better develop fractures. The Garvan for almost 20 years. prognostic models, Institute for Medical “The collaborative study and help clinicians Research collaborated examined more than identify individuals with with the Icelandic 300,000 such markers high risk of fracture for genetics company, and found 12 that were intervention. deCode, in a project linked to bone mineral that looked at 1500 density and 6 linked to Garvan Institute for women from Garvan’s fragility fractures. Some Medical Research, Dubbo Osteoporosis of these Snips are close [www.gavan.org](http://www.gavan.org). Epidemiology Study to genes that are already [aunews-events](http://aunews-events) as well as more than known to be important (Search genotyping 12,000 women from in bone biology, while osteoporosis.) Iceland and Denmark. others are yet to be

**B.O.N.E.S.  
SUPPORT  
GROUP**  
will meet on  
April 14th at  
Oakwood  
Auditorium  
6209 Mineral  
Point Road  
Madison

1:30-2:30 p.m.

Questions? Call  
265-6410  
for information.

## Next B.O.N.E.S. Meetings

- Tuesday, April 14 - Neil Binkley, MD - Vitamin D: New Research Findings and Their Implications
- Tuesday, May 12 - Diane Krueger, BS, CBDT - Bone Density Scans - What Are They and Why Are They Important?
- Tuesday, June 2 (Note date change from 2nd Tuesday) - Bjoern Buehring, MD - Falls - Why Do We Fall and What Can We Do to Prevent Falling?

# P.T. Place: Gardening with Osteoporosis 2

By Barbara Luedke, Senior PT

Summers in Wisconsin. For many of us that means a limited number of months to enjoy a variety of outdoor activities, and gardening is frequently at the top of the list. Individuals with osteoporosis often ask if gardening is an acceptable activity. The answer is yes, as long as principles of safe movement are followed. The two most important precautions are to avoid forward bending and twisting movements. Each of these motions produces high loads on the vertebral bodies, especially when lifting or carrying an object. A combination of these two motions creates even higher compressive loads on the vertebral bodies. Therefore, always maintain good postural alignment and use good back protective measures. With gardening, you reap positive benefits. One is the pride and satisfaction of watching your gardens bloom and grow. Another benefit is the improvement in your bone strength and general endurance.

Safe gardening principles in-

clude:

1. Consider the option of container gardening or raised beds.
2. Use long handled tools to avoid forward bending.
3. Bend from your knees to reach for an object on the ground.
4. Better yet, position yourself on the ground, perhaps on your hands and knees or in a side-sitting position. This is a good opportunity to provide weight-bearing activities through your arms and upper body!
5. If balance or the ability to move safely from the ground to standing is an issue, consider using a stool or a kneeler with hand supports. Just remember to keep your back straight and bend from your hips.
6. Always use good body mechanics when shoveling, hoeing and raking, etc. Do not bend forward or twist. Instead, stand with your feet apart, and one foot slightly ahead of the other. Then shift your weight from foot to foot in a rocking motion. Remember to keep your back straight. Do not perform these activities if you experience pain or discomfort.
7. When carrying an object, hold

it close to your body. If you are carrying items in a bucket, it is better to evenly divide the load between two buckets and carry one in each hand.



Enjoy your summer activities. Always remember to move safely. Do, but don't overdo ... a difficult concept for persons with a strong work ethic. Stop before you become tired so you do not place your muscles or bones at risk for injury and most of all enjoy the bounty of your efforts – all the beautiful flowers and healthy veggies.

## Gardening and Yard Work = Good Exercise

Researchers at the University of Arkansas-Fayetteville found that gardening and yard work qualify as weight-bearing exercise, which is important for bone strength.

Since so many people enjoy these activities, they are more likely to engage in them. Further, many people do not think of gardening or yard work as exercise, but

rather as a form of leisure activity that is pleasurable and rewarded by blooming plants, a beautiful yard or vegetables for the table.  
<http://www.healthatoz.com>

Peace cannot be kept by force. It can only be achieved by understanding.

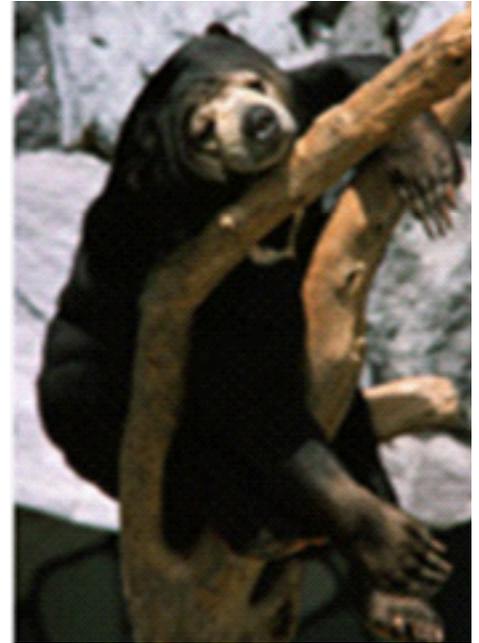
Albert Einstein

How would you like to be a bear and have your bone density increase while you hibernate all winter? Why don't bears get osteoporosis? That's what would happen if we hibernated all winter. Seth Donahue and his colleagues of Michigan Tech University have studied hibernating black and grizzly bears and found that their bone mineral content is maintained during hibernation. Not only that, a bear's bones get stronger and less porous as it gets older.

Donahue discovered these facts by studying bears from Michigan, Virginia, Washington, and Utah, and by testing the strength of bear bones donated by hunters near his lab in Houghton, Michigan. He wanted find out what makes bears different from humans.

In the search for bears' secrets that could lead to the development of a new drug, Donahue has checked out the animals' parathyroid hormones, which seemed to be the key to their bone resilience. Research revealed that the bears' hypothalamus, an almond-size part of the brain that controls a number of metabolic and nervous system processes, might also be part of the magic within bear bones. Donahue and his colleagues have modified a synthetic bear hormone and have partnered with a drug company to further investigate this potential new treatment.

"We are optimistic that our new version of the bear parathyroid will eventually lead to a new osteoporosis drug for humans," Donahue said.



Rozell, Ned, *Hibernating bears yield bony secret*. Alaska Dispatch 2/17/09

## Legislation Proposed to Preserve Bone Density Testing

An important part of osteoporosis prevention, diagnosis and treatment is determining an individual's bone mineral density. DXA is the best test available to diagnose and treat osteoporosis.

Medicare reimbursement for DXA bone mineral testing in the physician's office has been reduced by approximately 50% since 2006 and is scheduled to be cut again in 2010. The current rate of \$72 is substantially below the average cost of providing this service, which has been estimated to be \$134. Many physicians have been forced to discontinue providing this service and more will

follow in their footsteps unless the cuts are reversed.

Osteoporosis is a preventable, under-diagnosed and under-treated disease. Women count for 71% of all osteoporotic fractures.

A 2008 study by Kaiser in Southern California demonstrated the cost-effectiveness of DXA testing and treatment. Increasing DXA testing and treatment over a 5-year period (2002-2006) resulted in a 37% reduction in hip fractures. The cost to the Medicare budget for payment related to potentially preventable hip

fractures, hospitalizations and nursing home admissions can be reduced greatly by the increased utilization of DXA.

Multiple healthcare provider groups, and the National Osteoporosis Foundation have been working to reverse this threat that will limit access to osteoporosis care. The good news is that Senator Blanche Lincoln and Senator Olympia Snowe recently introduced legislation in the Senate to restore reimbursement for bone density testing in the physician's office setting.

International Society for Clinical Densitometry [www.iscd.org](http://www.iscd.org)

# RECIPE FILE

## Hoppin' John

- |   |  |
|---|--|
| 1 cup cooked brown rice                             | ½ medium green bell pepper, chopped            |
| 2 cups water  | 3 stalks celery, chopped                       |
| 1 large clove garlic, lightly smashed               | 1 jalapeno pepper, chopped (optional)          |
| 1 bay leaf  | ½ tsp. dried thyme leaves                      |
| 2 cans (15 oz.) black eyed peas, rinsed and drained | ¾ tsp. ground cumin                            |
| 1 medium onion chopped                              | Salt and freshly ground black pepper, to taste |
| 1 (14 oz,) can diced tomatoes                       | 4 green onions, sliced                         |
| 1 medium red bell pepper, chopped                   |  |

In a large, heavy pan, cook the rice in the water with the garlic and bay leaf for about 30 minutes, or until the rice is tender.

Add the black-eyed peas, onion, tomatoes (and their juices), red and green bell peppers, celery, jalapeno pepper, thyme, cumin, salt and pepper. Cover and cook for another 10 to 20 minutes, adding an additional 1/4-cup water if necessary, until the rice is tender and the vegetables have released their liquid.

Stir in the sliced green onion. Serve with hot sauce, if desired. Makes 10 servings, 1/2 cup each.