

THE OSTEOPOROSIS REPORT

A QUARTERLY NEWSLETTER FROM THE NATIONAL OSTEOPOROSIS FOUNDATION

Remembering Paul G. Rogers

It is with great sadness and heavy hearts that we announce the passing of The Honorable Paul G. Rogers on Monday, October 13, 2008. We extend our deepest sympathies to his wife, Becky, their daughter Laing, his son-in-law John Sisto, his four grandchildren and his brother Doyle.

The National Osteoporosis Foundation (NOF) owes Mr. Rogers an enormous debt of gratitude for his vision and leadership in founding the organization. Recognizing osteoporosis as a critical public health issue, Mr. Rogers joined leaders in medicine and science at the conclusion of a National Institutes of Health (NIH) Consensus Development Conference on Osteoporosis in 1984 to help create NOF. He served NOF as founding chairman for 19 years and in this role he made great strides in advancing osteoporosis awareness, education, advocacy and research. Mr. Rogers continued to shape and strengthen the organization as a Member of NOF's Board of Trustees until his passing. His commitment to NOF and to improving bone health is second only to his outstanding record for improving our nation's healthcare on Capitol Hill.

Mr. Rogers served in Congress for 24 years and for eight of those years he was the Chairman of the House Subcommittee on Health and Environment. Virtually every piece of landmark health legislation during that period bears the Rogers name, earning him the title "Mr. Health." He was instrumental in enacting The National Arthritis Act, The Research on Aging Act, The National Cancer Act, The Clean Air Act and The Safe Drinking



Hon. Paul G. Rogers, Founding Chairman of the National Osteoporosis Foundation

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Remembering Paul G. Rogers

Water Act. Among his many other triumphs, he also played a major role in establishing the National Institutes on Aging and the National Institutes of Health (NIH).

Mr. Rogers was a dedicated public servant, inspiring mentor and, above all, a friend. He will be profoundly missed. ■

As we celebrate the 25th Anniversary of Paul G. Rogers' vision in 2009, we will be dedicating our signature fundraising event, the Silver Silhouette Awards Dinner, on Wednesday, May 20, 2009 at The Ritz-Carlton in Washington, DC, to Paul's memory.



Mrs. Becky Rogers, daughter Laing, son-in-law John Sisto and Mr. Rogers at the National Osteoporosis Foundation Silhouette Ball

Take the NOF Challenge!

Dr. Burton Spiller was retired from a 32-year career as a practicing orthodontist in upstate New York when he was diagnosed with osteopenia. He began to research ways to help other people with his condition and discovered NOF. After learning about its mission, Dr. Spiller decided to commit \$100,000 to the NOF Research Grants Program.

NOF's unique program does not duplicate the work of others; it provides modest grants to young investigators at the start of their careers to encourage a focus on osteoporosis and bone health research. Many of our previous grantees have gone forward to make substantial contributions to our understanding of osteoporosis and to leverage their projects for higher levels of funding through the National Institutes of Health.

The number of scientists seeking grants from NOF's Research Grants Program has dramatically increased over the past few years and, this year, NOF is considering more than 20 proposals. Unfortunately, only three of these proposals can be funded due to fiscal constraints.

As a celebration of NOF's 25th anniversary in 2009, NOF pledges \$250,000 to its Research Grants Program. Today, Dr. Spiller joins NOF in challenging you to make a donation of \$25, \$250, \$2,500 or more to help us reach this goal. Your

gift will advance medical research on osteoporosis and help those suffering from the disease for years to come.

If you would like to discuss your gift plans, please call (800) 231-4222. ■

Thank you to United Way and Combined Federal Campaign participants who designated NOF for a donation!

2008 NOF Research Grant Award Recipients

.....
Susan Reinwald, B.A., M.S., Ph.D.

Indiana University

Project Title: Menopause, Type 2 Diabetes and the Underlying Link to Bone Fragility

Yi-Hsiang Hsu, Sc.D.

Hebrew Rehabilitation Center, Institute for Aging Research

Project Title: Osteocalcin and Metabolic Risk Factors A Genome-Wide Association Study in Framingham

Edward C. Hsiao, M.D., Ph.D.

J. David Gladstone Institutes

Project Title: Identification of G-Protein Coupled Receptors in Osteoblastogenesis

Robyn Kimberly Fuchs, B.S., M.S., Ph.D.

Indiana University

Project Title: The Role of Periostin in Regulation Bone Size in Response to Anabolic Therapy

2008 Public Policy Wrap-Up

2008 was a difficult legislative year in Washington, DC because of tight fiscal constraints, the national economy and the election. However, throughout the year NOF continued to spearhead efforts on Capitol Hill to ensure access to quality care for those with and at risk for osteoporosis, expand prevention and awareness education programs and increase funding for osteoporosis research.

NOF and its advocates continued to urge Congress to remedy the drastic reductions in Medicare reimbursement for bone mineral density testing, so vital to osteoporosis prevention, diagnosis and treatment. As a result of these cuts, slated to continue through 2010, many physicians may be unable to continue offering dual energy x-ray absorptiometry (DXA) tests for osteoporosis, threatening access to quality healthcare for those with and at risk for osteoporosis. NOF worked to include a remedy in Medicare legislation moving through Congress, though due to budget constraints, it was not included. Despite this, NOF's efforts helped establish and build relationships on Capitol Hill that will serve us well as we continue working on this issue in the new Congress.

Thanks to the work of NOF's advocates, the U.S. House of Representatives passed the "Mother's Day Centennial Commemorative Coin Act," H.R. 2268, on June 10, 2008. Introduced by Representatives Shelley Moore Capito (WV) and Carolyn Maloney (NY), this bill proposed to authorize the U.S. Mint to produce a commemorative coin in honor of the centennial of Mother's Day. Proceeds from the coins' sale would have been shared by NOF and Susan G. Komen for the Cure to further their research grant programs. Unfortunately, the Senate did not act upon its own version, S. 2883, introduced by Senator Rockefeller (WV), before Congress adjourned in October for the election.

Congress did not finish the fiscal year 2009 bills which fund the government agencies, before adjourning. Instead, Congress passed legislation that would keep the government running through March 2009 at the same levels

of funding as fiscal year 2008. Therefore, NIH did not receive the 6.5 percent increase in funding which NOF believes is necessary to find a cure and increase the treatment options for osteoporosis.

NOF also educated Members of Congress, their staff and families through various events. NOF held a congressional briefing in July, in partnership with the Alliance for Aging Research to release *The Silver Book*® on osteoporosis, which provides research and data to support innovative policy to reduce the burden of osteoporosis. In September, NOF hosted a luncheon briefing to educate families of Members of Congress and other community leaders on bone health and osteoporosis. NOF also held *Strong Voices for Strong Bones Advocacy Training Meetings* in Arizona and California to educate people about advocating for better bone health and osteoporosis prevention and treatment with local, state and federal government officials.

While 2008 was a challenging legislative year, NOF and our advocates made their voices heard in Washington, DC! We look forward to 2009 when we will continue our efforts to make bone health a priority in Congress. ■



An attendee at NOF's congressional families luncheon addresses a question to the panel composed of (left to right): Ethel S. Siris, M.D., immediate past president and member of NOF Board of Trustees; Janet Hubert, actress & celebrity patient and Rear Admiral John Eisold, M.D., attending physician of the U.S. Congress and moderated by Susan Dentzer, editor-in-chief of *Health Affairs*.

Studies Show Eating More Fruits and Vegetables Is Good for Your Bones

You may already know that eating fruits and vegetables can help you prevent conditions like some types of cancer, diabetes, heart disease and stroke. But did you know that these foods can also help your bones? Overall fruit and vegetable intake is associated with better bone health. The key is that you need to consume five or more servings of these foods every day. While it is not known which nutrients in fruits and vegetables are most important for bone health, calcium, magnesium, potassium, vitamin C, vitamin D and vitamin K all seem to play a role.¹

Results from three recent studies on this topic are listed below. Although the results are promising, more research is needed before conclusions can be made.

- In October 2008, the Journal of Nutritional Biochemistry reported results of an animal study showing that blueberries may reduce bone loss. The antioxidants in blueberries, such as vitamin C, may play a role in bone health. This study was done on female rats that had their ovaries removed to model what happens in women after menopause.

- Also in October, Nutrition reported results of a study showing that the pulp in red grapefruit may improve bone quality. Like blueberries, the antioxidants in grapefruit pulp may also play a role in bone health. This study was done on castrated male rats.

- Lastly, in October, The Journal of Nutrition reported results of a study showing that vitamin C may protect older men from bone loss. In this four-year study on vitamin C intake and bone health, there was no similar finding in women.

Further building the case that fruits and vegetables are good for your bones, NOF published an article in the fall 2008 issue of the *Osteoporosis Report* about a study, conducted by Bahram H. Arjmandi, Ph.D., R.D. of Florida State University, that sought to determine whether eating dried plums (also called prunes) could improve the bone density of postmenopausal women. A previous study by Dr. Arjmandi determined that dried plums helped the bone health of postmenopausal women. ■

¹Jeri W. Nieves, Osteoporosis: the role of micronutrients. *Am J Clin Nutr* 2005; 81: 1232-1239S.

Potato and Brussels Sprouts Gratin

- Vegetable cooking spray
- 3 cups thinly sliced baking potato
- 1 (10-ounce) package frozen Brussels sprouts, thawed and halved
- 1 tablespoon reduced-calorie margarine
- 2 tablespoons all-purpose flour
- 1½ cups skim milk
- ½ teaspoon onion powder
- ¼ teaspoon salt
- ¼ teaspoon dried whole thyme
- ⅛ teaspoon pepper
- ¼ cup freshly grated Parmesan cheese

Released by permission from *Cooking Light Cookbook 1994*.

- 1 Place potato slices and brussels sprouts in an 11 x 7 x 1½-inch baking dish coated with cooking spray.
- 2 Melt margarine in a saucepan over low heat; add flour, stirring until smooth. Cook 1 minute, stirring constantly with a wire mask. Gradually add milk. Cook over medium heat, stirring constantly, an additional 10 minutes or until thickened and bubbly. Stir in onion powder, salt, thyme, and pepper.

- 3 Pour over potato mixture. Cover and bake at 375 degrees for 50 minutes or until potato is tender. Sprinkle with cheese; bake, uncovered, an additional 10 minutes or until golden. Serve immediately.

YIELD 6 SERVINGS CALORIES 146 | PROTEIN 7.6 g | FAT 2.9 g | SATURATED FAT 1.1 g | CARBOHYDRATES 24.1 g
 FIBER 3.5 g | CHOLESTEROL 4 mg | IRON 2.0 mg | SODIUM 242 mg | CALCIUM 165 mg

I have just been diagnosed with osteoporosis. Is it safe for me to do yoga?

Many people have asked this very same question. To answer it, let's begin with some background information about yoga. In recent years, the ancient mind body practice of yoga has become popular in the United States. Some of the many different types of yoga are:



- Ashtanga yoga (sometimes called "power yoga")
- Bikram yoga (also known as "hot yoga")
- Hatha yoga
- Iyengar yoga
- Kundalini yoga
- Vinyasa yoga

According to the National Center for Complementary and Alternative Medicine, "the ultimate goal of yoga is to reach complete peacefulness of body and mind,

helping you relax and manage stress and anxiety." Yoga has many other benefits, including improved levels of fitness, flexibility, posture and balance.¹

Some experts believe that yoga can help people who are at risk for bone loss and osteoporosis. Many yoga poses may improve muscle strength, which can benefit the bones. Also, by helping with posture, stability and balance, yoga may reduce the chance of falling. Many people break (fracture) bones as a result of falling.

If you have osteoporosis or low bone density, you may need to avoid certain movements or poses in yoga and other forms of exercise. Here are some examples of what to AVOID:

- Exercises that require you to bend forward from the waist, such as standing forward bend, head to knee pose and seated forward bend. These movements can cause fractures in the spine bones (vertebrae).

- Activities that involve rounding or hunching of the back
- Twisting your spine to a point of strain, especially when in a standing or seated position
- Sudden jerking, rapid movements
- Poses that bear weight directly on the neck, such as headstand and shoulderstand positions

You can also make certain yoga poses or exercises safer by adding props. For example:

- When doing seated poses or exercises, sit on at least two firm folded blankets to avoid rounding or hunching the back.
- When lying down place support under your head to keep your forehead level or slightly higher than your chin. This is especially important if your posture is stooped or hunched.
- When doing bending exercises such as the downward-facing dog pose, use yoga blocks to avoid bending from the waist.
- When doing balance exercises, if you feel unsteady to the point where you could fall, you may need to be near a wall or chair for hand support.

These guidelines may not be right for everyone. If you plan on taking a yoga class, let your instructor know if you have osteoporosis or low bone density (osteopenia) before you begin. Make sure he or she can help you to avoid any movements that aren't safe for you.

You can also ask your doctor or healthcare provider for a referral (also called a prescription) to see a physical therapist who can help you develop a safe exercise program. Always check with your healthcare provider before beginning a new exercise program. ■

¹National Center for Complementary and Alternative Medicine, National Institutes for Health. Yoga for Health: An Introduction. <http://nccam.nih.gov/health/yoga/yoga.htm#keypoints>.

Exercise Helps You Maintain Your Posture

Posture changes throughout a person's life span. We are born with flexed spines and, during early childhood, the spine starts to straighten as we begin to sit and stand. By early adulthood we reach skeletal maturity with erect posture and smooth gentle curves as shown in Figure 1. Fortunately, most of us maintain this posture throughout most of our adult life.

As hormone levels decrease in mid-life, the muscles which hold the body erect (back, shoulders, chest and abdomen) begin to lose some of their strength and can cause changes in posture. For many people, losing about an inch in height and getting a little bent over is usually a normal consequence of aging. It may be from the drying out of cartilage disks in between the bones of our spine. This is not related to osteoporosis. With osteoporosis, however, these changes in posture often occur earlier in life and can be much more severe (see Figure 2). An x-ray taken from the side view of the full spine (thoracic and lumbar) is the best way to determine if broken bones have occurred in the back.

When you break bones in the spine, it can cause you to lose height. Additionally, as more bones break in the spine, your spine becomes more curved and your posture begins to look stooped or hunched. For unclear reasons, this can occur without substantial pain. It is important to have a thorough medical evaluation and bone density test (DXA) to find out if height or posture changes are caused by osteoporosis or are a part of other degenerative processes related to aging. Proper exercises can be very effective in minimizing these changes in posture.

Exercise treatment by a physical therapist trained in osteoporosis care varies according to the degree of posture changes and the stiffness of the spine. The goal of therapy is to not only improve your posture, but to strengthen and stabilize the spine to prevent or slow

down further curving of the spine. In severe cases, treatment is directed at reducing pain and preventing further bone fracturing (or breaking). It's clear that the sooner you start a proper exercise program, under the guidance of a physical therapist knowledgeable in osteoporosis, the better, but it is **never** too late to start an exercise program.

There are various ways you can evaluate and keep track of your posture changes:

- 1) Ask your physician or healthcare provider to measure your height once a year and record it in your patient chart. Also, your healthcare provider can look at your back and posture for any unusual changes.
- 2) Check the profile of your posture by having someone take a side-view photo of you. How far forward is your head compared to the rest of your body? Does your neck angle forward excessively? Is your upper back beginning to curve forward? Date the photo so you can make comparisons in the future.
- 3) Monitor your "spinal height." Sit on a hard bottomed chair with your best posture; sit naturally, don't "force it." Look towards the horizon so you don't tilt your head back and measure your height (see Figure 3). Record your height on the back of your photo for comparisons later on. If your height decreases significantly, you'll know the changes are in your spine.

The take-home message is to start the proper exercises early on so you can prevent posture changes, but remember it is **never** too late to start exercises that benefit your posture. ■

NOF thanks Richard Baldwin, P.T., for contributing this article. Mr. Baldwin is owner and director of Downeast Rehabilitation Associates in Rockport, ME. He is the osteoporosis support group leader of the NOF Coastal Support Group and an NOF health professional member.

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FIGURE 1

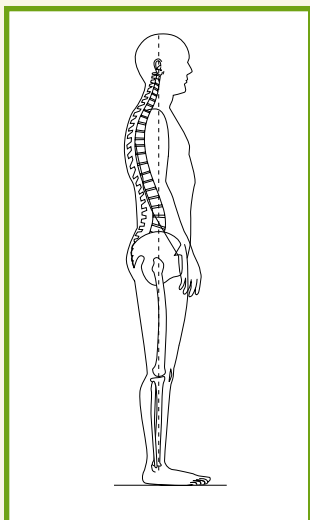


FIGURE 2

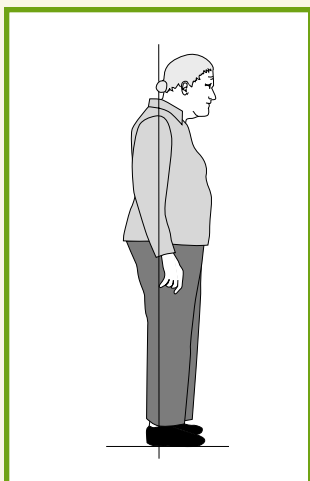
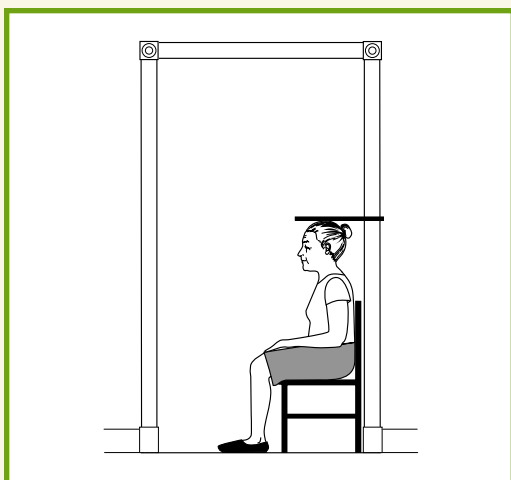


FIGURE 3



Fall Special Events Wrap-Up

A Gift from Mothers to Daughters

On the high heels of New York fashion week, NOF hosted *A Gift from Mothers to Daughters* luncheon for New York City's most notable mothers and daughters at The Pierre Hotel on Wednesday, September 24, 2008 to celebrate all the things women love best: fashion, diamonds and strong bones. The afternoon included a high-end silent auction and a fashion show from couture designer J. Mendel with jewels by Harry Winston. *A Gift from Mothers to Daughters* celebrated one of the most important gifts that generations of women have passed on to their families: the gift of knowledge about health—especially information about bone health and osteoporosis.



Honorees Carol Higgins Clark, Mary Higgins Clark, Margo Catsimatidis and Ivana Trump; Honorary Chair, Carmen Dell'Orefice; Event Chair, Sharon Marantz Walsh; and honoree Jane E. Brody.

Gourmet for Good

On Monday, October 20th—World Osteoporosis Day—NOF hosted the inaugural *Gourmet for Good* event, an evening of elegant dining in Dallas, Texas. More than 100 guests gathered for a cocktail reception and heard from past NOF research grant recipient, Dr. Ugis Gruntmanis, and NOF Board member, Dr. Robert Gagel. Following the reception, guests were taken by limousine to some of the city's finest restaurants including The Capital Grille, Charlie Palmer Restaurant, The Club, Craft Dallas, The Crescent Club, Dallas Fish Market, Dragonfly at Hotel ZaZa, Kenichi Dallas, Medina Oven & Bar, Nana, Nobu, Palomino and Salum Restaurant. The generosity of these Dallas restaurants and donors allowed nearly all event proceeds to go straight to NOF's programs of awareness, advocacy, education and research.

Stay tuned for dates and information about special events in 2009 as we celebrate NOF's 25th Anniversary! ■



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RESOURCES

NOF's newest *Friend of NOF* Partner: Totally Calcium™

Totally Calcium™ is a 100 percent soluble and absorbable calcium powder that can easily be added to beverages and foods. For more information or to order visit www.totallycalcium.com or GNC Live Well stores in select Rite Aid locations. NOF Members may receive a free sample through the company website by using the code: MEMBERSTC (for item 001); quantities are limited.



New Publications

NOF's 100+ page patient care handbook, *Boning Up on Osteoporosis*, has recently been translated to Spanish. Both English and Spanish versions of this resource are available for a reduced price of \$6.50 or are available for free with an NOF membership.

NOF's new publications, "How the Foods You Eat Can Affect Your Bones" and "Building Bones to Last a Lifetime" are now available. To request a free copy call (800) 231-4222.

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