

Bone Builders



Janet Napolitano
Governor

Office of the Governor

*** OSTEOPOROSIS AWARENESS MONTH ***

WHEREAS, Osteoporosis is the most common disease of postmenopausal women; and

WHEREAS, in 2004 the U.S. Surgeon General estimated that by 2020, one in two Americans over the age 50 will be at Risk for Fracture from Osteoporosis or Low Bone Mass; and

WHEREAS, The estimated lifetime risk of developing a spine, hip, or wrist fracture after age 50 is 50% for women and 13% in men; and

WHEREAS, in Arizona there are an estimated 810,000 cases of osteoporosis and low bone mass, and the costs for medical care for osteoporosis-related fractures in Arizona is \$236 million annually; and

WHEREAS, about half of the women in Arizona aged 50 and older report that they have never had a bone density test; and

WHEREAS, the Arizona Osteoporosis Coalition, and the University of Arizona Cooperative Extension Bone Builders program have been educating women and health professionals that osteoporosis is a preventable and treatable disease, and fracture protection is needed to help prevent or reduce fractures in postmenopausal women; and

WHEREAS, Osteoporosis Awareness Month helps raise awareness about maximizing your bone strength, appropriate calcium and vitamin D consumption, understanding the treatment options, and most importantly, knowing your risk for fracture.

NOW, THEREFORE, I, Janet Napolitano, Governor of the State of Arizona, do hereby proclaim May as

*** OSTEOPOROSIS AWARENESS MONTH ***

IN WITNESS WHEREOF, I have hereunto set my hand and caused to be affixed the Great Seal of the State of Arizona

Janet Napolitano
GOVERNOR

DONE at the Capitol in Phoenix on this 22nd day of March in the year Two Thousand and Five and of the Independence of the United States of America the Two Hundred and Twenty-ninth.

ATTEST:

Janice K. Brewer
Secretary of State



Bone Builders in Washington DC

University of Arizona – Healthy Bones for a Lifetime and Bone Builders is highlighted on the National Association of State Universities and Land Grant Colleges (NASULGC) website. Dr. Scott Going, from the University of Arizona, is featured with a UA Healthy Bones display at the “A Science Roadmap for Agriculture: A University Science and Education Exhibition and Reception on Capitol Hill,” March 1.

You can see Scott at:

http://www.nasulgc.org/CFERR/AgDay2005_1.htm

With information on BEST, Bone Builders and other UA bone-related projects.

Three Bone Builders team members presented 2 poster sessions at the 6th International Osteoporosis Symposium in Washington DC the first week of May. Dr. Linda Houtkooper, Sharon Hoelscher Day and Vanessa Stanford presented posters on the BEST - Bone, Estrogen Strength Training study results and one on Bone Builders. They joined hundreds of researchers, health care providers and advocates of osteoporosis. The Symposium is sponsored by NOF, National Osteoporosis Foundations.

Falls and Related Fractures

The Risk of Undiagnosed Osteoporosis

Because osteoporosis progresses without symptoms, falls are especially dangerous for people who are unaware that they have low bone density. When a person over age 50 breaks a bone, treatment should include a bone density test to determine whether or not osteoporosis is present and subsequent medication or

Did You Know?

- More than 90% of hip fractures are associated with osteoporosis?
- Nine out of ten hip fractures in older Americans are the result of a fall?
- Individuals who have a hip fracture are 24% more likely to die in the first year following that injury than others in this age group?
- For those living independently before a hip fracture, 15-25% will still be in long-term care institutes a year after their fracture?
- Most falls happen to women in their homes in the afternoon?

therapy is required. If preventive measures are not taken and/or a treatment program has not been initiated, bone loss will continue and fractures may increase.

Even though bones do not break after every fall, the person who has fallen and broken a bone almost always becomes fearful of falling again. As a result, she or he may limit activities for the sake of “safety.” Among Americans age 65 and older, fall-related injuries are the leading cause of death due to unintentional injuries.

As people get older, they also are more likely to suffer from a variety of chronic medical conditions that often require taking several medications. People with chronic illnesses that affect their circulation, sensation, mobility or mental alertness or those taking medications (see chart) are more likely to fall as a result of drug-related side effects such as dizziness, confusion, disorientation or slowed reflexes. Taking 4 or more medications is a major risk for falling.

Medications may increase the risk of falling

- Blood pressure pills
- Heart medicines
- Diuretics or water pills
- Muscle relaxers or tranquilizers

Changes in muscle mass and body fat also can play a role in falls. As people get older, they lose muscle mass because they have become less active over time. Loss of muscle mass, especially in the legs, reduces a person’s strength to the point where she or he is often unable to get up from a chair without assistance. In addition, as people age, they lose body fat that has cushioned and protected bone areas, such as the hips. This loss of cushioning also affects the soles of the feet, which upsets the person’s ability to balance. The gradual loss of muscle strength, which is common in older people but not inevitable, also plays a role in falling. Muscle strengthening exercises, however, can help people regain their balance, level of activity and alertness no matter what their age.

Improving balance

- Do muscle-strengthening exercises
- Obtain maximum vision correction
- Practice using bi- or trifocal glasses
- Use medicine safely
- Practice balance exercises daily

Source: National Osteoporosis Foundation.

What Breast Cancer Survivors Need to Know About Osteoporosis

The Impact of Breast Cancer

The National Cancer Institute reports that 1 in 8 women in the United States (approximately 13.3 percent) will develop breast cancer in her lifetime. In fact, next to skin cancer, breast cancer is the most common type of cancer among U.S. women.

The Breast Cancer-Osteoporosis Link

Women who have had breast cancer treatment may be at increased risk for osteoporosis for several reasons. First, estrogen has a protective effect on bone and reduced levels of the hormone trigger bone loss. Because of chemotherapy or surgery, many breast cancer survivors experience a loss of ovarian function and, consequently, a drop in estrogen levels. Women who were premenopausal prior to their cancer treatment tend to go through menopause earlier than those who have not had the disease.

Studies also suggest that chemotherapy may have a direct negative effect on bone. In addition, the breast cancer itself may actually stimulate the production of osteoclasts, the cells that break down bone.

These women must also follow all the **good nutrition, exercise, and healthy lifestyle** needed to reduce their risk for osteoporosis.

Medication. There is no cure for osteoporosis. However, medications are available for the prevention and treatment of the disease in postmenopausal women, men, and those taking glucocorticoid medications.

Although there is a lack of studies that specifically address the use of these medications in women with breast cancer, bisphosphonates, a class of the osteoporosis treatment medications, are being studied for and have demonstrated some success in their ability to treat breast cancers that have metastasized to bone.

In addition. Another osteoporosis treatment medication, raloxifene, is currently being evaluated for its ability to decrease breast cancer risk. Raloxifene, a selective estrogen receptor modulator (SERM), has been shown to reduce the risk of breast cancer in women with osteoporosis. The National Institutes of Health is currently sponsoring STAR (Study of Tamoxifen and Raloxifene) to compare the effectiveness of raloxifene with that of tamoxifen in preventing breast cancer in postmenopausal women at high risk of developing the disease.

Source: National Institutes of Health: Osteoporosis and Related Bone Diseases ~ National Resource Center; <http://www.osteoo.org>

Osteoporosis in Men

Osteoporosis, a disease that causes the skeleton to weaken and bones to break, is a significant threat to more than two million men in the United States today. Experts estimate that one-fifth to one-third of all hip fractures occur in men and that symptomatic vertebral (spine) fractures occur about half as often in men as in women. After age 50, six percent of all men will suffer a hip fracture as a result of osteoporosis. In 1994, osteoporotic fractures in men accounted for annual costs of \$2.7 billion, or one-fifth of the total cost of osteoporotic fractures in the U.S.

Despite these compelling figures, a majority of American men view osteoporosis solely as a “woman’s disease,” according to a 1996 Gallup Poll. Moreover, among men whose lifestyle habits put them at increased risk, few recognize the disease as a significant threat to their mobility and independence.

Osteoporosis develops less often in men than in women because men have larger skeletons, bone loss starts later and progresses more slowly, and there is no period of rapid hormonal change and accompanying rapid bone loss. However, in the last few years the problem of osteoporosis in men has been recognized as an important public health issue, particularly in light of estimates that the number of men above the age of 70 will double between 1993 and 2050.

In their fifties, men do not experience the rapid loss of bone mass that women have in the years following menopause. By age 65 or 70, however, men and women lose bone mass the same rate, and the absorption of calcium, an essential nutrient for bone health throughout life, decreases in both sexes.

Primary and Secondary Osteoporosis

There are two main types of osteoporosis: primary and secondary. In cases of primary osteoporosis, the condition is either caused by age-related bone loss (sometimes called *senile osteoporosis*) or the cause is unknown (*idiopathic osteoporosis*). The term idiopathic osteoporosis is used only for men less than 70 years old; in older men, age-related bone loss is assumed to be the cause.

At least half of men with osteoporosis have at least one (sometimes more than one) secondary cause. In cases of secondary osteoporosis, the loss of bone mass is caused by certain lifestyle behaviors, diseases or medications. The most common causes of secondary osteoporosis in men include exposure to glucocorticoid medication, hypogonadism (low levels of testosterone), alcohol abuse, smoking, gastrointestinal disease, hypercalciuria and immobilization.

Causes of Secondary Osteoporosis in Men

- Glucocorticoid excess
- Other immunosuppressive drugs
- Hypogonadism
- Alcohol excess
- Smoking
- Chronic obstructive pulmonary disease and asthma
- Cystic fibrosis
- Gastrointestinal disease
- Hypercalciuria
- Anticonvulsant medications
- Thyrotoxicosis
- Hyperparathyroidism
- Immobilization
- Osteogenesis imperfecta
- Homocystinuria
- Neoplastic disease
- Ankylosing spondylitis and rheumatoid arthritis
- Systemic mastocytosis

Source: NIH Osteoporosis and Related Bone diseases
~ National Resource Center.

Maricopa County Bone Builders

Bone Builders started in Maricopa County in 1998. In recent years, Bone Builders has worked with the Arizona Nutrition Network teaching nutrition and healthy lifestyle behaviors to women on food stamps in Arizona. Most of the parents we teach under this partnership are Spanish-speaking mothers in school or community center-based groups.

Maricopa County partnered with a variety of groups to offer classes, screening with the Arizona Osteoporosis Coalition and health fairs all over the valley. Our great volunteers make it possible for Bone Builders to be at a wide variety of events from the Asian Community Health Fair in the East Valley to classes in the West Valley. Special thanks to all our active volunteers who donate their time, skills, and knowledge.

Bone Builders of Maricopa County is continually working in the community educating folks on the prevention of osteoporosis through high calcium nutrition and physical activity. Eva Paz-Ono, Program Coordinator, educates hundreds of women through local schools' parent programs as well as in other community centers throughout the county. In addition, many of our trained volunteers have assisted in reaching our community by setting up a table and displays at a number of community and corporate health/resource fairs throughout



Eva Paz-Ono educates parents at Granada East Elementary School in Phoenix.

the year.

Our newest addition to Bone Builders has been the Physical Activity Program directed by Liz Schnoll, Health Educator. This program was introduced as a pilot for five City of Phoenix senior centers. It was so well received and results so impressive that we were able to be the recipients of a two-year grant from the Virginia G. Piper Charitable Trust. The nine-week program gets inactive seniors moving. (See later story).

Sad News

Eva Paz-Ono will be leaving Bone Builders and the University of Arizona Cooperative Extension the end of June to pursue her real estate business full time. We will all miss Eva, her high energy, good humor and great organization and marketing skills. During her 3 years with Bone Builders, she was instrumental in our Spanish-language outreach, volunteer training, partnerships and marketing efforts. Eva and her family are visiting family in Japan in June. She started with Bone Builders in 2002. We wish Eva all the best in her new endeavors!

A part-time Bone Builders coordinator position is currently open to start later in June. The job description and application are online at www.uacareertrack.com/. Search location is Maricopa County for job number 32914. It will have the position description and more details.

If you know of any great candidates for this job, please have them complete the application. Contact Sharon Hoelscher Day at shday@ag.arizona.edu for more information.

Bone Builders Physical Activity Program News!

Seniors “Get Up and Get Moving” for the start of the Summer 2005 Session. After completing the summer training for staff and community volunteers anxious to bring the UA Bone Builders Physical Activity Program to their local center or site, 5 senior centers, throughout and around Maricopa County, with a total registration of 75 participants, embarked on the 9-week Summer 2005 Session of the Bone Builders Physical Activity Program (BBPAP) last week. The classes are a mixed group of women and men, who are working to start to improve their current level of physical activity. Many have not engaged in any form of physical activity for some time. Some participants have real physical limitations or recently, may have been diagnosed with osteoporosis, a bone thinning disease. Whatever the reason, it’s important to note that these folks now realize physical activity is critical to their bone health and overall health and wellness to “get moving” again!

The BBPAP is a low impact, beginning physical activity program targeting older inactive adults. The only requirement to participate in the program is the completion of a Medical Consent to Participate form, as reviewed and signed off on, by all participants’ primary care physician . . . along with a willingness to get up and get moving!

This safely guided, low impact, activity program enables older, inactive adults to begin to start moving. The program targets key areas of ability, including, but not limited to; **strength** in both upper and lower body, **flexibility** in upper and lower body, **endurance** and **agility** and **balance**. These are actually key components to maintaining quality of life as we age, enabling us to continue to be self-sufficient and independent and moving us to higher level of participation in physical activity, such as resistance exercising, a recognized benefit to bone health, among other valued health benefits.

If you are interested in participating in this wonderful program you may call these centers to get more information to attend the Fall Session beginning in September.

- Senior Services East Senior Center, 1818 S. 16th Street, Phoenix, (602) 262-7305, Genevieve
- Paradise Valley Senior Center, 17402 N. 40th Street, Paradise Valley, (602) 495-3785, Mary
- Marcos de Niza Senior Center, 6501 West Virginia, Phoenix, (602) 495-3709, Frances
- Shadow Mountain Senior Center at Elks Lodge, 14424 N. 32nd Street, Phoenix, (602) 534-2303, Francesca
- Buckeye Senior Center, 210 Center Avenue, Buckeye, (623) 386-2588, Betty

Or, you may contact Elizabeth Schnoll, Health Educator, at (602) 470-8086, extension 324 for questions or for further information about the UA BBPAP. The Fall 2005 Session will begin in September, so call early if you are interested in bringing this program to your center, as opportunities and class sizes are limited each session.

Bone Appétit

Creamy Chicken and Mushrooms

Total time: 25 minutes



- 2 cups uncooked medium egg noodles
- cooking spray
- 1 pound skinless, boneless chicken breast, cut into bite-size pieces
- 1 teaspoon olive oil
- ½ cup chopped shallots
- 1 (8-ounce) package presliced mushrooms
- ½ cup dry white wine
- 1 cup fat-free milk
- 2 teaspoons all-purpose flour
- ⅓ cup (3 ounces) spreadable cheese with garlic and herbs (such as Alouette)
- 2 tablespoons chopped fresh parsley
- ¼ teaspoon black pepper
- chopped fresh parsley (optional)

1. Cook pasta according to package directions, omitting salt and fat.
2. While pasta cooks, heat a large non-stick skillet coated with cooking spray over medium-high heat. Add chicken, sauté 4 minutes or until done. Remove chicken from pan, set aside.
3. Heat oil in pan over medium-high heat. Add shallots, sauté 1 minute. Add mushrooms, sauté 4 minutes. Add wine, and cook for 3 minutes or until liquid almost evaporates.
4. Combine milk and flour in a small bowl, stir well with a whisk. Add milk mixture to pan, cook 3 minutes or until slightly thick. Add chicken, cheese, 2 tablespoons parsley, and pepper; reduce heat, and simmer for 3 minutes or until thoroughly heated. Serve over pasta, sprinkle with parsley, if desired.

Yield: 4 servings (serving size: ¾ cup chicken mixture and ¾ cup pasta).

Nutrition Facts: Calories 388 (18% from fat); Fat 6.9g (sat 2.5g, mono 1.7g, poly 1.1g); Protein 37.1g; Carb 31.3g; Fiber 2.9g; Chol 101mg; Iron 3.5mg; Sodium 241mg; **Calcium 116mg.**

Source: *Cooking Light*.

Maricopa County News

Bone Builders Partners with AzOC

During Osteoporosis Month, Bone Builders partnered with the Arizona Osteoporosis Coalition (AzOC) to do classes and ultrasound screening at the Arizona capitol and several seniors centers including Apache Junction, Black Canyon City and Ak-chin. Upcoming classes and screening will be in Winslow, Kingman and Sedona.



Renea Gentry, AzOC Executive Director, is screening one of the seniors at Black Canyon City and discussing risk factors.

Farewell Potluck

We will be having a potluck in June to honor Eva Paz-Ono and wish her all the best! If anyone is interested in attending please call Mary Conner at (602) 470-8086, extension 353 for details.

We are not saying “goodbye,” but extending a “see you later” to Eva.



Sharon Hoelscher Day, Extension Agent, Family & Consumer Sciences in Maricopa County is teaching seniors about the changes bone undergoes with osteoporosis.

Volunteer Birthdays!

Happy Birthdays to all the following volunteers:

April

17 Telefora Gonzalez

20 Kristina Bignoli, Anne Chadwick, Mary Conner, Heike Hilker, Michael Sano

22 Lynn Miller

26 Lisa Pearson

May

1 Mary Ellen Rivero

14 Sheila MacDonald

17 Barbara Ashford

23 Marilyn Stofa

28 Emily Bower, Dana Singla

29 Delmi Ortega

June

7 Yolanda Madrid, Dena Walters

24 Traci Luna

28 Karin Schwalbe

29 Catherine Gillette

30 Freida A. Reed

Sharon Hoelscher Day, Extension Agent, Family & Consumer Sciences
Coordinator, Community Health Programs



- Dr. Linda Larkey, Phoenix Area Director, Women’s Cancer Prevention Research Initiative and Research Assistant Professor, College of Public Health
- Eva Paz-Ono, Program Coordinator, 602-470-8086, ext. 316, email: epazono@ag.arizona.edu
- Elizabeth Schnoll, Health Educator, 602-470-8086, ext. 324, email: eschnoll@ag.arizona.edu

Persons with a disability may request a reasonable accommodation, such as a sign language interpreter by contacting Eva Paz-Ono at 602-470-8086, extension 316. Requests should be made as early as possible to allow time to arrange the accommodation. The University of Arizona is an equal opportunity, affirmative action institution. The University does not discriminate on the basis of race, color, religion, sex, national origin, age, disability, veteran status, or sexual orientation in its programs and activities.