

# Bone Builders Newsletter

January — March 2010

## Faces of Osteoporosis



The Foundation for Osteoporosis Research and Education and the California Department of Health Services Osteoporosis Prevention and Education Program worked with photographer Amelia Davis to capture the essence of men, women, and children living with osteoporosis from age 34 to late 80's. The book *Faces of Osteoporosis* is available from Demos Medical Publishing and at Amazon.



For more information, visit American Bone Health:

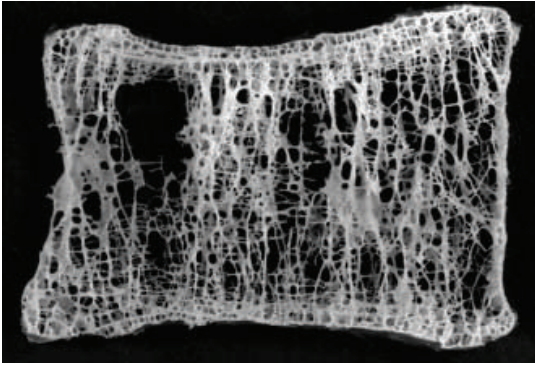
<http://www.americanbonehealth.org/what-you-should-know/faces-of-osteoporosis>

## New NAMS position statement on osteoporosis management

The North American Menopausal Society (NAMS) has updated its position statement on the management of osteoporosis in postmenopausal women to focus on preventing fractures first by reducing lifestyle risk factors that can be changed through diet and lifestyle changes and then pharmacologic treatment if indicated.

<http://menopause.org/news/news0110.pdf>

## Understanding the T-score



Some people have low bone mass but do not yet have osteoporosis. This condition is called osteopenia, defined by the World Health Organization (WHO) as 10% to 25% below peak adult bone mass, or a T-score between  $-1.0$  and  $-2.5$  standard deviations below normal. It is very important for people with osteopenia to develop a good prevention plan to keep them from developing osteoporosis.

A Z-score compares your bone density to the average for people your own age and gender. If you are a 60 year old female, a Z-score compares your bone density to the average bone density of 60 year old females. A Z-score is helpful in diagnosing secondary osteoporosis and for looking at the bone density of children and young adults who have not reached peak adult bone mass. If you have a very low Z-score (more than 2 standard deviations below other individuals your age), your doctor should consider whether other illnesses or medications may be contributing to your osteoporosis.

A T-score shows how much your bone mass varies or deviates from the average bone mass of a healthy adult. Bone density is like any other biologic test or measurement. The results for the entire population will fall around an average score (the mean). A T-score is a standard deviation — a mathematical term that calculates how much a test varies from the mean. The score that you will receive from your BMD test is measured as a standard deviation from the mean. The manufacturers have programmed the bone density testing machines to use a formula to compute these values.

One standard deviation is equal to a 10-12% difference in bone mass. If you are exactly equal to the peak bone mass of an average 30 year old male or female, you do not deviate at all from the average so your T-score would be 0 standard deviations (SD). If your bones are stronger than the average adult, your bone mass may be  $+1$  or  $+2$  SD indicating that your bones have a mass 10-20% above that of the average 30 year old. If your bones are less dense than average adult, your standard deviation may be  $-2$  or  $-3$  indicating that your bone mass is 20-30% below that of the average 30 year old.

Although you may have low bone density when you have your first test, your doctor cannot tell if you have lost bone to get to that point or if you have always had lower bone mass due to family or medical history. Your peak adult bone mass may have been below that of the average individual. For example, if you have a T-score of  $-2.5$ , it is not appropriate to say that you have lost 25% of your bone. There are lab tests that can help your doctor determine if you are currently losing bone.

## Drop Fat with This Creamy Food

Several studies suggest that extra calcium in the diet (and yogurt's got lots) may inhibit fat absorption in the small intestine. And that means having less of it to store around your hips, thigh, and belly.

**Out with the Fat!** In the studies, people who averaged an extra 1,241 milligrams of calcium per day excreted significantly more fat in their daily bowel movements, compared with folks who got less than 700 milligrams per day. And although the studies didn't measure weight loss, the researchers suspect that extra fat excretion may translate into two big benefits: less weight gain and less chance of regaining weight that's been lost. (*Effect of calcium from dairy and dietary supplements on faecal fat excretion: a meta-analysis of randomized controlled trials.* Christensen, R. et al., *Obesity Reviews* 2009 Jul;10(4):475-486.)

**The Sweet Facts.** When obese people followed a reduced-calorie diet that included three 6-ounce servings of calcium-rich yogurt a day, they lost a whopping 61 percent more fat overall — and 81 percent more fat around their waists — compared with those who didn't eat yogurt. Why? Turns out the calcium in yogurt may hinder fat storage and boost fat loss. And calcium-rich dairy products like yogurt may contain additional fat-burning compounds as well. (*Dairy augmentation of total and central fat loss in obese subjects.* Zemel, M. B. et al., *International Journal of Obesity* 2005 Apr;29(4):391-397.)

**Does the Source Matter?** Not a fan of dairy? In the studies, it didn't seem to matter whether the calcium came from foods or supplements. But calcium from dairy foods seemed to exhibit more consistent results. Stick to non-fat and low fat versions of milk, cheese, yogurt, and other dairy products.

### Good Sources of Calcium



Source: RealAge, 1-18-2010 e-newsletter issue.

Yogurt, plain, low-fat (8 ounces)	415 mg
Ricotta cheese from part-skim milk (1/2 cup)	335 mg
Soy milk, fortified (8 ounces)	300 mg
Spinach, cooked from frozen (1 cup)	290 mg
Milk, 2% milk fat (8 ounces)	285 mg
Swiss cheese, shredded (1/4 cup)	214 mg
Cheddar cheese, shredded (1/4 cup)	204 mg
Salmon, canned (3 ounces)	181 mg
Soybeans/edamame (1/2 cup)	130 mg
Tofu (3 ounces)	100 mg
Parmesan cheese, shredded (1 tablespoon)	55 mg

## Pima County Offers Bones for Life Classes

Bones for Life, a program for stimulating bone strength through natural movement and weight-bearing posture, uses the organic learning philosophy from the Feldenkrais Method. This series of movement processes explores the impact of gravity on the skeleton, teaches dynamic alignment of the bones, focuses on weight bearing, promotes flexibility, strength and stability and uses walking to carry over learning into every day life.

Processes are learned sequentially, building on each other to create increased personal body awareness of the optimal postural alignment that promotes bone health.



Joan Peet, who is a Bones for Life teacher in training, is a volunteer Bone Builder and Master Consumer Advisor for Pima County Cooperative Extension in Tucson. Having retired after 45 years as a rural pediatric occupational therapist, Joan is passionate about maintaining her own bone health and continuing her healing by having certified as a Zero Balancing practitioner. Contact Linda Block at 520-626-5161 in Pima County Cooperative Extension for more information.

## Bone Facts

In white women, the lifetime risk of hip fracture is 1 in 6, compared with a 1 in 9 risk of a diagnosis of breast cancer.

About 20-25% of hip fractures occur in men. The overall mortality is about 20% in the first 12 months after hip fracture and is higher in men than women.

An IOF survey, conducted in 11 countries, showed denial of personal risk by postmenopausal women, lack of dialogue about osteoporosis with their doctor, and restricted access to diagnosis and treatment before the first fracture result in underdiagnosis and under-treatment of the disease.

The onset of anorexia nervosa frequently occurs during puberty, the time of life when maximal bone mass accrual occurs, thereby putting adolescent girls and boys with anorexia nervosa at high risk for reduced peak bone mass.

Source: International Osteoporosis Foundation (IOF), 2009.

## Coming Events

### Osteoporosis Day — April 1

Free ultrasound bone density screening at the Arizona Capitol, 1700 W. Washington from 10:00 AM to 3:00 PM. Volunteer to help staff the Bone Builders booth.

### Generations of Women Luncheon — May 7

Plan to attend the 3rd annual Generations of Women Luncheon sponsored by the Arizona Osteoporosis Coalition at the Ritz-Carlton Hotel, 24th Street and Camelback. It will feature women of various generations talking about their lives. Purchase your ticket online at [www.fitbones.org](http://www.fitbones.org). Bring your mother or daughter to celebrate the lives of women in Arizona. Promote sponsorships with businesses and friends. All funds raised stay in Arizona to support education and bone density screening. Contact Kitty Woodward at [kittyazoc@aol.com](mailto:kittyazoc@aol.com) or call 602-749-1008 for more information.

## Bone Builders Joins Facebook

The next time you are on Facebook just search for Bone Builders and become a fan!

gram updates, and share ideas with other Bone Builders volunteers. Become a BB Facebook Fan today!



Learn about new information, pro-

***Congratulations! One of our Bone Builders trainers, Vanessa Stanford Farrell and her husband are excited about the birth of their first child. A son, Collin, was born Feb. 8 and weighed 9 lbs. 8 oz. and was 21.5 inches long. Mother and son are doing well.***

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## Taking the University to the People

[www.cals.arizona.edu/maricopa/fcs](http://www.cals.arizona.edu/maricopa/fcs)

[www.bonebuilders.org](http://www.bonebuilders.org)



## Bone Appétit



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### Single Serving Mixed Fruit/ Yogurt Smoothie

Use your favorite milk or yogurt in this recipe. Use ice cubes instead of water for a frozen treat. Most of the smoothie recipes I've seen are for 3-6 servings. This is a good smoothie for just 1 person. It can be made with a stick blender instead of getting the big one dirty for just one drink! It is easily modified to add and vary fruit(s) of your choice.

Makes 1 serving, approximately 1.5 cups.

#### Ingredients

1/4 cup (2 oz.) 1% milk  
1/4 cup (2 oz.) nonfat, sugar free yogurt  
1/4 cup water  
1/2 cup frozen mixed fruit  
1 tablespoon dry old fashioned oatmeal

#### Directions

Using a 2 cup measuring glass, add milk and yogurt, then add frozen

fruit until liquid reaches the 1 cup line. (This measures 1/2 cup fruit by displacement.) Add oatmeal and water. Drink can be prepared without the water if you like it a little thicker. Blend and enjoy!

**Nutrition Facts:** Calories 115;  
**Calcium 70 mg.**

To read more about these yogurt benefits, just visit:

<http://www.realage.com/tips/a-thick-and-creamy-weight-loss-aid>

Recipe submitted by RO Kershner.

If you have questions concerning access, wish to request a sign language interpreter or accommodations for a disability, please contact Mary Conner at [mconner@cals.arizona.edu](mailto:mconner@cals.arizona.edu) or 602-827-8200, ext. 353.

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