
Bone Builders



The University of Arizona • Cooperative Extension • Maricopa County

July, August, September 2005

Power of Muscle

Strength training is central to avoiding injury, fighting bone loss, toning body – Muscle strength matters
by Mary Beth Faller

Think of your body as a house.

“People think our skeleton supports us,” says Shannon Perrin, personal fitness director at Bally’s Total Fitness in Scottsdale. “But the skeleton is like the frame of the house. It’s really your muscles that support the spine.”

Building up the muscles is important to prevent injury.

“So often, someone will go to lift something and use their back and injure it. If you have good strength, and have built up your legs, you’ll prevent that injury,” Perrin says.

Working on muscle strength is especially important as we age. We hit peak bone mass in our 20s. After that, we gradually start to lose it, which can lead to osteoporosis, a prime cause of debilitating bone fractures in older people. One way to stave off bone loss is to work out your muscles. The action of the muscle pulling will help build the bone.

And, because all the types of fitness are interrelated, you need muscle strength before embarking on cardiovascular exercise.

“When I’m working on people with muscular strength, it might be so they can walk a mile,” Perrin says. “The whole idea is so you can perform a sport or a task in everyday life.”

At the other end of the spectrum, elite athletes such as marathon runners train with weights. Building upper body strength can boost their power on hills and at the end of a race.

And while everyone knows that a muscular body is more attractive than a flabby body, leanness also contributes to thinness. People with more lean muscle burn more calories at rest than people with more body fat.

“A pound of fat in 24 hours burns 3 to 5 calories,” say Perrin. “A pound of muscle burns 50 to 75 calories in 24 hours. It’s a huge difference.”

Also, some studies have found that weight training increases the good kind of cholesterol (LDL) and decreases the risk of developing adult-onset diabetes.

[Source: Excerpt from *The Arizona Republic: Arizona Living*, Section E, Tuesday, May 24, 2005]

Bone Builders Volunteers Needed

Awareness and prevention are critical in combating the growing problem of osteoporosis. Volunteers are needed to teach others about reducing the risks of osteoporosis. The Bone Builders program is a partnership between the University of Arizona Cooperative Extension, Arizona Osteoporosis Coalition, and many other local organizations around the state to help women reduce their risks of developing osteoporosis.

Do you know a potential Bone Builder? It only takes a few hours a month to become a Bone Builders volunteer and make a difference in the health of women. Volunteer to be a Bone Builder in your workplace, church, or community. The next volunteer training is scheduled for September 16 & 17, 2005.

In Phoenix, the training will be held at the University of Arizona, Arizona Health Sciences Center – Phoenix Programs Office located at 4001 N. Third Street, Suite

415. Contact Linda Block at (520) 626-5161 or email lblock@ag.arizona.edu for the Tucson location.

Both days are required. Registration is 8:15 a.m. on Friday, September 16, and the training will be from 8:30 a.m. – 4:30 p.m. On Saturday, September 17, class will be from 8:30 a.m. – 2:00 p.m.

There is a registration fee of \$50.00 for in-state volunteers and \$100.00 for out-of-state volunteers and non-volunteers.

Registration fee includes curriculum notebook, t-shirt, exercise band and meals. Make check payable to: University of Arizona. Checks need to be mailed to Sharon Hoelscher Day, Extension Agent, 4341 E. Broadway Rd., Phoenix, AZ 85040. For an application and more details call 602-470-8086, extension 332 or email shday@ag.arizona.edu.

Yuma News

Mayra Diaz resigned from her position in Yuma with Cooperative Extension and Bone Builders. Mayra had another beautiful baby boy several months ago, making 3 children in their family.

Welcome

Laural Jacobs is the new Bone Builders Program Coordinator in Pima County. Laurel is a graduate student at the University of Arizona in the College of Public Health.

Ask The Osteoporosis Expert

Does Medicare cover any medications for osteoporosis patients?

When Medicare first began, only drugs that were administered in a physician's office were covered under Medicare Part B. NOF has been active in supporting the expansion of Medicare coverage of medications for all individuals with osteoporosis. Now, eligible homebound osteoporosis patients may be able to receive coverage for nasal calcitonin, risedronate, raloxifene or alendronate.

The Medicare Replacement Drug Demonstration is a time-limited Medicare Demonstration program that will cover certain drugs before Medicare's prescription drug program begins in 2006. These drugs include medications for various diseases including osteoporosis. A limited number of participants will be accepted into the demonstration program, so early enrollment is encouraged to receive this benefit.

For more information on how to enroll please visit the federal government Medicare Web sites at www.cms.hhs.gov and www.medicare.gov for further details and an application. You may also receive an application by calling (866) 563-5386 or (866) 563-5387 for TTY users.

[Source: *The Osteoporosis Report*, Spring 2005: Volume 21, #1]

All Vitamin D is not Equal

Vitamin D is an important nutrient for bone health, but many people in the United States do not get enough vitamin D, making it harder for their bodies to absorb the calcium they need for strong bones. Although some foods such as egg yolks and liver contain vitamin D and other foods are fortified with it, vitamin D formed in the skin after exposure to the sun is the most common source for

most people. Identifying an affective supplement for people deficient in vitamin D is important.

Researchers at Creighton University in Omaha, NE, and the Medical University of South Carolina in Charleston, SC, found that two forms of vitamin D, previously thought to have comparable effects in people, did not have similar potency in a study conducted in 30 men. Subjects who received vitamin D3 had substantially higher levels of vitamin D circulating in their bodies than those who received vitamin D2 after 28 days. Because vitamin D3 was at least three times more potent, smaller doses of this form of vitamin D would be required. Further study is still needed to determine optimal doses.

[Source: Armas, Laura A.G., et al. "Vitamin D2 is Much Less Effective than Vitamin D3 in Humans." *Journal of Clinical Endocrinology & Metabolism* 2004; 89: 5387-5391.]

Hot Shot Team Challenge

The Arizona Osteoporosis Coalition is "TEAMING UP" with the Arizona State University Women's Basketball team to provide an evening of fun, competition and osteoporosis awareness on **October 12, 2005, Wednesday, 6:00pm – 9:00pm at the Wells Fargo Arena**. Please join us, meet the ASU players, and support this worthy cause! Can you get a team from your worksite?

FITBONES Hot Shot Team Challenge Rules

- Teams of 4 may be composed of both male and female competitors. Due to NCAA rules, high school and junior college women are not eligible to participate.
- Each contestant has 1 minute to shoot from the 5 designated "hot spots" on the floor to accumulate as many points as possible. Each spot has a separate point value.

An autographed ASU Women's Basketball Team T-shirt will be presented to the highest scorer. Awards will be presented to teams placing 1-5 in each of the two categories. Win great raffle prizes!

To register online or print out the enrollment application and to view complete challenge rules visit www.fitbones.org.

Early registration – Save \$50 by registering your team before September 15th.

Cost to Participate – \$200 per adult team (\$150 for early registration) and \$100 for a children's team, junior high and younger.

Please make checks payable to Arizona Osteoporosis Coalition and mail to Arizona Osteoporosis Coalition, P.O.

Box 6776, Chandler, AZ 85246. Call (480) 471-6995 for more information.

Powerful Bones, Powerful Girls

Web site at:

<http://www.cdc.gov/nccdphp/dnpa/bonehealth/> is part of the Center for Disease Control. One section is for parents of a growing girl and things to keep her as healthy and happy as possible.

The site has useful information on how to help your daughter develop lifelong bone-healthy habits. For a healthier future, your daughter's bones need your support now. The National Bone Health Campaign is geared for 9 to 12 year old girls. However, the information also



applies to older and younger girls because healthy habits are essential for all girls to build strong bones. The Powerful Bones section for girls includes games, quizzes, ideas on staying strong and health links for girls.

Bone Builders is also listed on the CDC website under "What are the States Doing"!!

Web Resources

VERB is what you do. If you have a "tween" student in your home encourage them to visit <http://www.verbnow.com/> for fun ways to increase physical activity. VERB is designed for 9-13 year olds in partnership with the CDC.

Growing Stronger: Strength Training for Older Adults!

<http://www.cdc.gov/nccdphp/dnpa/physical/growi>ng_stronger/index.htm. If you're interested in feeling stronger, healthier, and more vital, this program is for you. This strength-training program was developed by experts at Tufts University and the Centers for Disease Control and Prevention (CDC).

Growing Stronger is an exercise program based upon sound scientific research involving strengthening exercises – exercises that have been shown to increase the strength of your muscles, maintain the integrity of your bones, and improve your balance, coordination, and mobility. In addition, strength training can help reduce the signs and symptoms of many chronic diseases, including arthritis.

Bone Appétit



Garden Lasagna

Prep: 30 minutes; Cook: 60 minutes

1½ teaspoons olive oil

3½ cups (1 pound) chopped zucchini

1 cup chopped onion

⅔ cup chopped carrot

1½ cups fresh corn kernels or frozen whole-kernel corn, thawed

1 cup chopped fresh basil

½ teaspoon kosher salt, divided

¼ teaspoon freshly ground black pepper, divided

¼ cup all-purpose flour

3 cups 1% low-fat milk

1 cup 1% low-fat cottage cheese

½ cup (2 ounces) grated Parmesan cheese

⅛ teaspoon ground nutmeg

Cooking spray

9 (about 5 ounces) no-boil lasagna noodles (such as Barilla)

1 cup (4 ounces) preshredded part-skim mozzarella cheese

1. Preheat oven to 400°.
2. Heat oil in a large nonstick skillet over medium-high heat. Add zucchini, onion, and carrot; sauté 8 minutes or until lightly browned. Remove from heat; stir in corn, basil, ¼ teaspoon salt, and ⅛ teaspoon pepper.
3. Lightly spoon flour into a dry measuring cup; level with a knife. Place flour in a large saucepan; gradually add milk, stirring with a whisk. Cook and stir over medium heat until mixture comes to a boil; reduce heat and simmer 2 minutes, stirring constantly. Remove from heat; stir in cottage cheese, Parmesan, nutmeg, ¼ teaspoon salt, and ⅛ teaspoon pepper.
4. Spread ½ cup white sauce in bottom of an 11- x 7- inch baking dish coated with cooking spray. Arrange 3 noodles over sauce; top with half the vegetable mixture (about 2 cups) and one-third of the remaining white sauce (about 1 cup). Top with 3 noodles, remaining vegetable mixture, half the remaining sauce, and 3 more noodles. Spread the remaining white sauce over noodles. Cover with foil and bake at 400° for 25 minutes. Uncover, sprinkle with mozzarella, and bake an additional 25 minutes or until golden brown. Let stand 15 minutes. Yield: 6 servings (serving size: 1 square of lasagna).

Calories 346 (24% from fat); Fat 9g (sat 5g, mono 3g, poly 1g); Cholesterol 27mg; Protein 23g; Carbohydrate 44g; Sugars 13g; Fiber 4g; Iron 2mg; Sodium 556mg; **Calcium 440mg.**

Maricopa County News

Fall 2005 Physical Activity Program

Beginning the week of September 19th, the Bone Builders Physical Activity Program will initiate delivery of the Fall Session of program. The BBPAP has enjoyed great success delivering fun and effective physical activity programming throughout Maricopa County. The BBPAP targets older inactive adults interested in getting moving as a means to improve bone health and overall health and wellness by participating in this 9 week program which provides a safe and low impact introduction to physical activity.

Generally, participants remark they receive much more than they ever expected as a result of completing the program. Many see marked improvement in leg strength, balance and endurance. Attendance is usually high, which supports the idea that exercise, so key to one's wellness and quality of life, can be fun and effective, particularly as older, inactive adults re-engage or engage for the first time, in a long time, in getting moving.

This Fall Session, we continue to partner with and provide programming to a few more City of Phoenix senior center programs. Paradise Valley Recreation Center, 17402 N. 40th Street and Shadow Mountain Senior Center located in the Elks Lodge at 14424 N. 32nd Street will be participating on Wednesdays and Fridays, consecutively. In addition, we welcome 2 new senior programming centers in the Tempe area: on Tuesday afternoons, Tempe Center for Habilitation located at 215 W. Lodge and on Thursdays, both morning and afternoon classes will be delivered to Tempe Adult Day Health Care, a program of the Foundation for Senior Living located at 2234 E. Maryland. Although registration for this session at these centers has closed, we encourage you to think about getting moving again. Possibly, you are a provider of senior programming in the community and are interested in bringing the Bone Builders Physical Activity Program to the clients in your center. For more

information about the Spring Session of BBPAP, please contact Elizabeth Schnoll at eschnoll@ag.arizona.edu or by phone at 602-470-8086, ext. 324. Registration for Spring begins December 1, 2005.

Remember...it's never too soon or too late to get moving!

Calling All Volunteers

If you are interested in volunteering at upcoming events please email Sharon Hoelscher Day at shday@ag.arizona.edu. This is a great opportunity to interact with professionals from other organizations and make new friends.

Volunteer Birthdays

Happy Birthday to the following volunteers.

July

- 1 - Wendy Tee, Jessica Garay
- 15 - Angela Vanderlans
- 21 - Russ Brandt
- 25 - Margot Langstaff
- 28 - Carol Fruciano

August

- 4 - Lilia E. Amaya
- 6 - Sarah Theis
- 19 - Rebecca Madrid
- 20 - Barbara Rhein, Marie Jacobs
- 28 - Denise Arnold
- 31 - Sheryl Arpin

September

- 5 - Beverly Tonti, Betty McMurrin
- 8 - Joe Buendia
- 9 - Gerry Davis
- 14 - Esther Evenson
- 16 - Erin Raney
- 20 - Emma Ditsworth
- 21 - Cheryl Wedmore
- 24 - Shweta Agarwa, David Lizarraga

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
- Program Coordinator, 602-470-8086, ext. 316
- 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 Sharon H. Day at 602-470-8086, extension 332. 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.