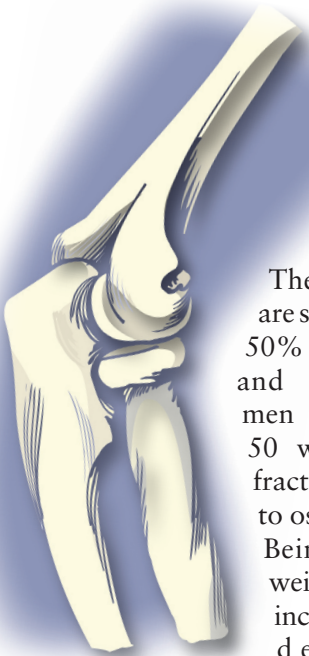


ON TRACK WITH BARIX

Support to Keep You On Track With a Healthful Lifestyle



BONE HEALTH

TIPS TO KEEP BONE HEALTH IN CHECK

The statistics are staggering—50% of women and 25% of men over age 50 will have a fracture related to osteoporosis.

Being overweight tends to increase bone density—bones become

stronger to support the extra body weight. Bone loss is typical with weight loss from gastric bypass surgery, adjustable gastric banding surgery or dieting. Osteoporosis is a complicated disease, one that we still have a lot to learn about. What we do know is that there are many things that you can do to make bone health a priority and keep from being included in these statistics.

First of all let's look at some bone health terminology:

Bone Mineral Density Testing: Various bone mineral density (BMD) tests (may include measurements of the hip, wrist, spine, shinbone, finger, and heel) compare BMD to that of a healthy 30-year-old adult. These tests provide a T-score. A T-score of 0 indicates a healthy bone mass. It is a good idea to get tested with a peripheral heel or wrist scan to obtain a baseline and then follow-

up with a more complete scan if the test score is low.

OSTEOPENIA: A bone mineral density (BMD) lower than normal peak BMD, but not low enough to be classified as osteoporosis. A T-score of -1 to -2.5 indicates osteopenia.

Osteoporosis: Thinning of the bones with a reduction in bone mass due to the depletion of calcium and bone protein. A T-score of -2.5 or greater is indicative of osteoporosis.

Many factors impact bone health. Let's take a look at them:

- **GENDER.** Women are at greater risk due to their lower peak bone density (at age 20) and the hormonal changes that occur as they go through menopause. Men are also at risk, but bone density typically reaches lower levels later in life.
- **AGE.** All people begin losing bone mass after they reach peak BMD at about 20–30 years of age. The denser your bones are at age 30, the longer it takes to develop osteopenia or osteoporosis. It is easy to think of bones as stagnant, but bones are living tissue with blood vessels and nerves. Blood cells are created in the marrow. Bones are constantly being torn down and rebuilt. In our younger years, more bone is built than torn

down. As we age and the rebuilding of bones decreases, bone density declines. Maximizing bone density throughout life will decrease the risks of osteoporosis in our later years.

- **FAMILY HISTORY.** Having a family history of osteoporosis, being thin, being white or Asian increases the risk of osteoporosis.
- **CHRONIC DIETING.** Not taking in adequate nutrients or a diet low in calcium and vitamin D will negatively impact bone density.
- **MEDICATIONS.** Long-term use of corticosteroids or other medications can weaken bones. Chemotherapy can have a negative effect on bone density.
- **SEDENTARY LIFESTYLE.** Being inactive or bedridden for a long period of time will cause bones and muscles alike to atrophy or break down.
- **SMOKING AND EXCESSIVE ALCOHOL USE.** Both smoking and excessive alcohol use can weaken bones.
- **CAFFEINE.** Moderate caffeine consumption does not significantly impact calcium absorption or excretion, but large amounts can have a bone thinning effect.

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THE CALCIUM CONNECTION

Your body uses calcium for many functions throughout the body. It is essential for the development of strong bones and teeth, blood clotting, blood pressure regulation, muscle contraction and nerve transmission. A very close range of calcium is maintained in the bloodstream to insure that these essential functions can be maintained. If adequate calcium is not consumed in the diet, it will be taken from bone storage. Women under 50 should be aiming for 1,000 milligrams of calcium a day. The recommendation increases to 1,200 mg (some experts recommend 1,500 mg) after menopause. Men should shoot for at least 800 mg daily. An adequate calcium intake can come from foods and beverages if adequate servings of high calcium-containing foods are selected. Healthy bones are dependent on an array of nutrients being available and foods provide more of the necessary nutrients. Many bone-healthy foods contain protein, phosphorus and Vitamin D in addition to calcium. If adequate calcium is not obtained from the diet, then supplementation is needed. See **Supplement Facts** for more information.

MAGNESIUM AND PHOSPHORUS

These minerals are essential for calcium absorption and strong bones. A complete multivitamin and balanced diet should provide adequate levels of these nutrients.

THE VITAMIN D FACTOR

Vitamin D helps in the absorption of calcium in the intestines. An adequate

Vitamin D level is essential to bone health. Our bodies obtain Vitamin D in two distinct ways: Vitamin D is activated when skin is exposed to sunlight and Vitamin D is found in our diets. The best dietary sources are fatty fish, liver and fortified foods and dairy products. Vitamin D deficiency is quite common in the United States. One study found 57% of hospitalized patients were Vitamin D deficient. Other studies show high levels of Vitamin D deficiency in obese individuals. A study in a northern climate found that 68% of children have low serum levels of Vitamin D in the winter season. 10-15 minutes of sun exposure on a sunny day (without sunscreen for this short time) twice a week and a dietary intake of 400–800 IU of Vitamin D daily should be adequate to prevent a deficiency. Most multi vitamins contain 400 IU of Vitamin D. Don't overdo it—too much of a good thing can be dangerous. Toxic levels can develop with excessive supplementation.

THE PROTEIN COMPONENT

Bones are one-third collagen. Collagen is a protein that provides flexibility to bones—another reason to reach that protein goal every day. Excessive protein can have a negative impact on bone health.

THE EXERCISE IMPACT

Weight bearing exercise (your legs and feet are supporting your weight) encourages the body to create stronger bones. Just as muscles grow stronger when used, bones become denser when you place demands on them. Weight lifting and weight bearing



exercises are the most effective. Start a regular exercise program during the rapid weight loss phase to minimize both bone and muscle loss and then keep it up to maintain a healthy weight, strong bones, muscle strength, and a robust metabolism.

THE PARATHYROID HORMONE COMPLEXITY

Parathyroid hormone works to keep a normalized level of calcium in the blood. It works in several ways to do this. One way is to increase the conversion of Vitamin D to its active form. It also decreases the excretion of calcium from the body and mobilizes calcium from the bones. Some studies indicate that supplementation with calcium citrate may be more effective than calcium carbonate in suppressing parathyroid hormone activity, resulting in a lower bone mass loss.

SUPPLEMENT FACTS

- Calcium isn't absorbed in large amounts so it is best to spread the supplement throughout the day.
- Take your calcium supplement with meals to increase absorption.
- For the calcium to reach your bones, you need to make sure you are obtaining an adequate amount of Vitamin D. An intake of 400 IU to 800 IU daily should be adequate. Remember that 10-15 minutes of sun exposure twice

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a week is also an effective way to boost your body's Vitamin D status.

- Calcium Citrate has been shown in some studies to be more bio-available (20–50%) than calcium carbonate, but either source will help to keep your bones strong.
- If you find that you are gassy or feeling bloated when starting a calcium supplement, decrease the amount and then slowly build up to the recommended amount.
- Chewable or liquid calcium supplementation may be better absorbed than pill form.
- Do not take calcium supplements at the same time as iron supplements. Iron is best absorbed when taken on an empty stomach with a small amount of citrus juice or another Vitamin C source.

Medications for Bone Loss. If you have bone loss, there are medications to slow the loss of calcium from bones. A newer medication can actually build bone. If you and your doctor determine that a medication for bone loss is in your best interest, be sure that you are getting adequate calcium, vitamin D, phosphorus and magnesium from your diet or supplementation. These medications can greatly reduce the risk of fracture.

IN THE NEWS

On August 17th, the FDA approved the first once-yearly drug for postmenopausal osteoporosis, Reclast. Reclast is given in a 15-minute intravenous (IV) infusion once a year. It belongs to a group of drugs called bisphosphonates. Actonel, Fosamax and Boniva are also drugs in the same class which are given on a more frequent (weekly or monthly) basis in a pill form. Reclast increases bone strength and reduces fractures.

CALCIUM CONTENT OF SELECTED FOODS & BEVERAGES

Food/Beverage	Serving Size	mg Calcium
Yogurt, plain, low fat	1 cup	415
Yogurt, fruit-flavored, no added sugar	1 cup	245–384
Sardines, with bones	3 oz	324
Milk, low fat	1 cup	302
Milk, buttermilk	1 cup	285
Orange juice (calcium fortified)	6 oz	200–260
Salmon, canned	3 oz	181
Pudding, made with instant mix	cup	153
Cottage Cheese	1 cup	138
Tofu	cup	138
Spinach, cooked	cup	120

MAXIMIZE YOUR BONE DENSITY

Your bones don't reach their greatest density until you are 20–30 years old, so for those younger than 30, a diet and lifestyle habits that increase bone density will have long-term benefits. To maximize bone density, get plenty of calcium and vitamin D through

your diet and enjoy a little time (10–15 minutes twice a week) in the sun without sunscreen. Exercise on a regular basis, don't smoke, and avoid caffeine, cola, and excessive alcohol. If you're older than 30, it's not too late to make these lifestyle changes and slow the loss of bone density, delay osteopenia, and delay or prevent osteoporosis.

DID YOU KNOW

- 75% of American adults do not meet the current recommendations for calcium intake.
- Your body constantly breaks down and rebuilds bone—so calcium intake throughout life is important.
- Peak bone mass is achieved by age 20-30. A woman may lose 20% of her bone mass in the first years following menopause.
- In addition to building strong bones and teeth, calcium helps your heart, muscles, and nerves to function properly and your blood to clot.
- Fifty-five percent of those over age 50 have low bone mass.
- Calcium carbonate supplements are best absorbed when taken with meals—no more than 500 mg of calcium at one time.
- Calcium citrate may be more effective at protecting against bone loss than calcium carbonate.
- Regular weight bearing exercise, such as walking or strength training, helps to keep your bones strong.
- Excessive alcohol consumption and smoking decrease bone density.

CONSIDERING SURGERY



The decision of whom to tell about your upcoming bariatric surgery is a very personal one. Some people are very open and tell family, friends and co-workers. On the other extreme, some tell no one—not even their spouses. Most people are selective in whom they choose to share their decision with. Considerations of whom to share your decision with should include:

- *Do you want to go through this journey with them by your side?*
- *Can they relate to the frustrations that obesity has brought to your life?*
- *Are they likely to be supportive or negative?*
- *Will they be overly concerned with your well-being?*
- *Will they be jealous of your weight loss successes?*
- *Is their overall attitude towards weight loss surgery more positive or negative?*

For those people whom you want by your side along your weight loss journey, make sure that they have enough information to feel comfortable with your decision. Take them to the group consult with you. Give them information to read. Have them visit the message boards on www.barixclinicsstore.com and post their concerns so others have an opportunity to respond. Tell them your personal reasons for having surgery. Let them know that only 5% of people are able to lose weight and keep it off with diet and exercise alone. Reassure them that your relationship can grow stronger as you feel better and have more energy. Let them know that you want them with you, supporting you as you go for your dream of a healthy weight.

WHAT'S NEW

Submitted by Samara S.

The benefits of exercising are endless. Exercising enables me to maintain my weight loss, decreases the risk of having heart disease, cancer, or even a stroke, gives me the energy I need, and alleviates stress. I know all of this and yet it is still difficult for me to make the time to exercise. It is important to exercise four to five days a week; however, it is not always easy to make exercise a priority when my schedule is already filled with so many activities and responsibilities. I also do not always feel like exercising, but I know that it is necessary.



“Success is not final, failure is not fatal: it is the courage to continue that counts.”

Winston Churchill

To encourage myself to exercise, I write a plan of exercise activities on a monthly calendar and place the calendar on a wall in my bedroom. Planning my activities ahead of time leaves little room for excuses. If I know that I am supposed to go to the gym on Monday, I have no excuse for not bringing my gym clothes to work with me. Having



the calendar in my bedroom also forces me to look at the calendar every day several times a day.

Every time I complete the listed daily activity, I place a large X through that day on the calendar. I feel a sense of success when I have five X marks for the week because it is always my goal to exercise five days a week. I feel pretty good when I have at least four X marks on the calendar. Sometimes I have a week in which I only have one or two X's on my calendar. This makes me feel guilty and I always begin to exercise more the next week so that I can feel good about myself again.

Basically marking off an X on the calendar is a motivator for me to exercise. I add a new calendar every month for six months and then I start over again. Six months allows me observe how well I am doing or not doing with making sure I exercise. If I have several bad weeks, than I have to evaluate the problem and find a way to make more time for exercise. After all, the benefits of exercising greatly outweigh the excuses for not getting up and moving.

REWARD YOURSELF

This month, you could earn a **\$25 GIFT CERTIFICATE** for your “It Worked For Me” tips or recipes! Just submit as many recipes and “It Worked For Me” tips as you like. The most original and creative will be awarded a \$25.00 gift certificate. Include your name and contact info with your entry—make sure your recipes follow Barix nutritional guidelines. Tips must be submitted by September 30, 2007. Please send comments, ideas, recipes and “It Worked For Me” tips to Deb Hart, RD, LD at dhart@foresthealth.com.

OTHERS CARE PLEASE SHARE

Please tell us about the lives that have changed because you shared your weight-loss story. Submit your story to <http://www.barixclinicsstore.com/id190.html>. What you have to say may be printed in this publication or on our website and can serve as inspiration to all.

REQUEST

A FREE BROCHURE FOR YOU OR A FRIEND at 800-282-0066, or www.barixinfo.com



QUESTIONS? ABOUT FINANCING YOUR SURGERY...

Call a Barix Patient Service Representative at 800-282-0066.

RECIPES



EASY CHICKEN BROCCOLI

Submitted by Nancy B.

1 pound chicken breasts, boneless, skinless, cooked and chopped

4 cups frozen broccoli—cooked and drained

_ cup Miracle Whip Free®

1/2 cup shredded cheddar cheese

_ cup French's Fried Onions—cheddar flavor

Mix together the chicken, broccoli and Miracle Whip Free in microwave safe bowl. Stir in approx 1/2 C shredded cheddar cheese. Microwave on med-high until heated through. Stir. Dish onto plates. Top with cheddar-flavored onions and serve. Makes 6 servings.

NUTRITION INFORMATION PER SERVING: 267 calories, 32 grams protein, 11 grams fat, 13 grams carbohydrate and 473 mg sodium.

PEANUT BUTTER COOKIES

Submitted by Cindi E.

1 cup quick oats

1 cup peanut butter

1 cup Splenda

1 tsp vanilla

1 egg

Roll dough into bowls and roll in some additional Splenda. Pat down with a fork like regular peanut butter cookies. Bake at 350 degrees for approx 8 minutes. Makes 18 cookies.

NUTRITION INFORMATION

PER COOKIE: 104 calories, 4 grams protein, 8 grams fat, 6 grams carbohydrate, 70 mg sodium.

RECONSTRUCTIVE SURGERY

To receive a **FREE RECONSTRUCTIVE SURGERY** guide, call 800-282-0066 or send us an email at rc@barixclinics.com with your name and contact information.

Our reconstructive surgery program is currently performed at our centers in Michigan, Ohio, and Pennsylvania. Call us today for more information!

~ ❁ ~
“**Motivation** is what gets you started. **Habit** is what keeps you going.”

Jim Rohn

SUBSCRIBE to *On Track With Barix*
www.barixclinicsstore.com/newsletter.html