

# Advancing Health Newsletter



- **Learn more about Bone Loss during Osteoporosis Awareness and Prevention Month**
- **Check out these Helpful Health Links online:**

- ⇒ National Osteoporosis Foundation: [www.nof.org](http://www.nof.org)
- ⇒ National Institutes of Health: [www.health.nih.gov](http://www.health.nih.gov)
- ⇒ [www.calciuminfo.com](http://www.calciuminfo.com)

### Special points of interest:

Check with us to learn about special health screenings taking place in our clinic and at events in the community. You may qualify for free: bone density, C-reactive protein, HbA1c (Diabetes), Cholesterol or other testing. Call the clinic to review the qualifying criteria. (925) 930-7267 or online: [www.diabloclinical.com](http://www.diabloclinical.com)

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## Osteoporosis: Facts & Answers to Frequently Asked Questions

By Richard L. Weinstein MD

### Bone Loss Facts:

- Osteoporosis and low bone mass is a common disease affecting 44 million women and men 50 years and older in the United States. One-third of men and one-half of women over age 50 will have an osteoporotic fracture before they die.
- Women and men can develop this disease at any age, especially with chronic medical conditions such as asthma or rheumatoid arthritis that require treatment with oral or injected glucocorticoids (e.g. cortisone and cortisone-like drugs like prednisone). Other diseases and conditions can cause bone loss as well: hyperthyroidism, vitamin D deficiency, hyperparathyroidism, malabsorption (celiac disease), anticonvulsant medications, anti-estrogen medications in women treated for breast cancer and anti-testosterone medications in men treated for prostate cancer.
- Men over age 50 have a greater risk of suffering an osteoporotic fracture than developing prostate cancer. Women over age 50 have a greater risk of suffering an osteoporotic fracture than the combined risk of heart attack, breast, uterine and ovarian cancer.
- Osteoporosis is responsible for 1.5 million fractures per year.

Most common



Least common

Spine	700,000
Hip	300,000
Wrist	250,000
Other (forearm, rib, pelvis, lower leg, ankle)	250,000

### A message from our Medical Director:

## Dr. Richard Weinstein

Dear Friends of Diablo Clinical Research,

Did you know osteoporosis does not only affect the elderly? No matter what your age, there is no time like the present to consider your bone health.

*In this issue:* Reviewing the bone loss facts in our feature article, and also risk factors on page 2 may help you prevent future bone loss and fractures. Are you getting enough calcium and essential vitamins and minerals? Our own registered dietician shares tips for achieving the daily required amounts for bone density.

As part of our Community Outreach Program, our clinic continues to offer free cardiovascular screening and diabetes screening for those at risk. Please give us a call or visit our website for all the details.

To your health,  
*Richard L. Weinstein, MD*

Medical Director, Diablo Clinical Research

## Osteoporosis: Facts & Answers to Frequently Asked Questions (continued from page 1)

■ Most people don't realize that they have Osteoporosis until they break one of these bones, (see chart page 1), following a fall doing an ordinary activity. Fractures of the hip, wrist, forearm, etc are obvious (you will know it.) Spine fractures are the most common and are often "silent" because only 1/3 are symptomatic with enough pain to demand a doctor's attention.

■ Of individuals who have a spine fracture, (seen on X-ray or bone mineral density (BMD) scan), 20% will fracture again in one year, and up to 50% will fracture again within 3 years.

**What is the message here? We must diagnose and treat bone loss before osteoporotic fractures occur.**

### Osteoporosis: Frequently Asked Questions

**Q: How can bone loss be diagnosed early enough to prevent fractures, or treat osteoporosis successfully to lessen the risk for future fractures?**

A:

- Obtain a bone mineral density (BMD) scan
- Be Aware of Risk Factors (see this page)
- Know the Medication Options

Obtain a BMD scan and if that exam discloses osteoporosis or low bone density (osteopenia) with risk factors, then you and your doctor need to discuss treatment options.

**Q: Isn't treatment for osteoporosis more than medications!?**

A: Yes, a treatment plan is a combination of elements:

- Physical activity: Weight-bearing exercise helps with fall prevention
- Nutrition: Calcium & Vitamin D (see guidelines on page 3)
- Medication to slow bone loss or build bone

**Q: If osteoporosis is nearly as common in men as women why don't we hear more about it?**

A: Because preventative medicine for elderly men tends to focus on prostate cancer to the extent that the likelihood of bone loss and fractures is usually neglected!

Men do have higher bone density compared to women and the greater BMD is due to larger bone size in men. Women begin to lose bone earlier than men (menopause is the culprit), which places women at higher risk of bone loss and fractures sooner than men.

**Q: Do men have a loss of hormones (menopause) like women?**

A: Yes, they do. There is some evidence that male hormones, both testosterone and estrogen (that's right, estrogen) play a role in men reaching their peak bone mass and maintaining it.

**Q: Overall, are the risk factors that cause osteoporosis similar in men and women? If so, what are they?**

A:

- **Low peak bone mass at skeletal maturity**
- **Advanced Age (Women who are 1 year post menopausal, and men aged 60 + with a history of fractures after age 50 are at increased risk)**
- **Personal history of fracture after age 50**
- **Family history of fracture or osteoporosis**
- **Lower body weight (women < 127 lbs., men < 160 lbs.)**
- **Lifestyle: Decreased physical activity, Smoking, High alcohol consumption, Low calcium diet**
- **Vitamin D deficiency**
- **Corticosteroid use (e.g. prednisone)**

**Q: Does a bone density test predict fracture risk in men and women?**

A: Absolutely, so make sure you get one if you:

- **Are Age 65 + (Women) or 70+ (Men)**
- **Have a history of fracture after age 50**
- **Have a disease/condition or are taking/being considered for treatment with medications associated with low bone density or bone loss**
- **Are a postmenopausal woman under age 65 with risk factors, particularly a family history of fracture, low body weight (<127 pounds) or frequent falls**
- **Are a postmenopausal woman discontinuing estrogen therapy, with known risk factors**
- **Are being considered for treatment for osteoporosis or being monitored for treatment effect**

Your bone mass or density results will be given to you in the form of a T-score (a statistical comparison of your bone mass result to the peak mean of young normal controls.)

#### **T-Score:**

Above or equal to - 1 SD	<b>Normal</b>
Between - 1 SD & -2.5 SD	<b>Osteopenia (low bone density)</b>
Lower than -2.5 SD	<b>Osteoporosis</b>

Various medications are available to treat bone loss and to protect the bones including: spine, hip and non-spine area. Medications that act by inhibiting bone loss include: estrogens, selective estrogen receptor modulators (SERMs) such as Evista, bisphosphonates such as Fosamax, Actonel and Boniva, calcitonin (Miacalcin nasal spray) and calcium with Vitamin D. These all have bone-sparing properties by different mechanisms and to some extent by varying degrees.

**Q: How effective are these medications for bone loss?**

A: They can reduce fracture risk by 50-60+% at different bone sites depending on their potency. Some work at the spine, others at the spine and hip and non-spine. The particular medication and its duration of treatment depend on which bones are involved, your bone density result and the other risk factors (see list) that pertain to you.

**Q: How will I know the medication is working?**

A: Your doctor will obtain a follow-up bone density, and sometimes a bone turnover marker (a blood or urine test) to help determine the effect of the prescribed medication on bone formation and bone loss.

**Q: Can medication for osteoporosis be discontinued after a period of treatment?**

A: Yes, depending on a number of factors:

- If the bone density remained stable or increased during treatment
- If there have been no fractures during the period of treatment

With these factors in mind, the patient's age, degree of his/her bone loss, weight (low body weight is an important risk factor), as well as physical activity level will also determine if one should consider halting treatment for a period of time. Importantly, a follow up bone density test and a blood test (bone turnover marker) would further determine if and when treatment should or should not be re-started.

**Q: What final thoughts can I take away from this information regarding bone health?**

A:

- Get a bone density test
- Determine your number of risk factors if any
- Seek treatment if needed
- There is no "bone of contention"... Just do it!

**Tips for Maintaining Strong and Healthy Bones**

By Kathy Napoli, RD, Diablo Clinical Research Dietician

**Calcium:** We're all aware of the importance of calcium for helping us maintain bone mass (especially after menopause) yet only 25% of adults consume enough of this vital nutrient. The recommendation for calcium by the NIH (National Institutes of Health) is:

**1000 mg - adults age 19-50**  
**1200 mg - over 50 and postmenopausal women on estrogen**  
**1500 mg - postmenopausal women not on estrogen.**

Research is also showing that we can't rely solely on calcium for healthy bones, we also need a supporting cast of vitamins and minerals such as vitamins D & K, zinc, boron, magnesium & copper to maximize bone health. It's better to strive to meet your calcium needs through foods as they help to provide a better source for these additional nutrients. Use the chart below to help you figure out how to get those nutrients from your foods.

Daily Needs	Benefit	Where to Get It
Vitamin C 500 mg	Helps produce collagen, connective tissue	Citrus fruits, green peppers, berries
Vitamin D 400-600 IU	Helps bones absorb and utilize calcium	Milk (100 IU in 8oz), Sun exposure, fatty fish
Magnesium 400-800 mg	Important for bone formation & helps prevent constipation	Almonds, cashews, Pumpkin seeds, lima beans
Boron 1-13 mg	Increase uptake of calcium and magnesium	Legumes, peanuts, peas
Vitamin K 80-110 mcg	Promotes synthesis of proteins needed for strength	Green leafy veggies- spinach, broccoli
Zinc 15 mg	Helps growth and repair of bone cells	Seafood - oysters, crab, red meat
Potassium 2000 mg	Helps bone retain calcium	Berries, potatoes, tomatoes

**Your calcium scorecard. Choose the below foods to meet your requirements:**

8oz low-fat plain yogurt	415mg	1 C cooked spinach	122mg
1oz parmesan cheese	390mg	1 C cooked broccoli	100mg
1 C 1% milk (fortified)	350mg	1 C cooked kale	100mg
1/2 C ricotta cheese (skim)	330mg	1 large artichoke	60mg
8 oz fruit yogurt	315mg	2 dried figs	52mg
1 C calcium-fortified OJ	300mg	2 tbsp almonds	35mg
4 oz canned red salmon	285mg	1 oz swiss cheese	270mg
1 oz cheddar cheese	205mg	1 C cooked turnip greens	200mg
1 oz mozzarella (part skim)	183mg	5 oz sardines with bones	300mg
1/4 C powdered milk	300mg	1 C cottage cheese	150mg
1 C cooked bok choy	160mg		

**Avoid calcium robbers** - The American diet is laden with processed foods, caffeine, alcohol, and salt which deplete our bodies of calcium and other nutrients.

- **Limit sodium** to 2400 mg daily (a tsp of salt).
- **Avoid the phosphoric acid** in soft drinks, even diet soda, it may promote calcium loss.
- **Don't eat excessive protein.** Calcium is an alkaline mineral released from bone to neutralize the acidic environment that excessive protein creates.
- **Avoid excessive vitamin A in the form of retinol.** Research suggests that for every additional 3000 IU women consume above the daily value (5000 IU), the risk of bone breakage rises by 68%. Most of the vitamin A in your multi-vitamin should be in the form of beta-carotene which the body converts to vitamin A only as needed.

**Drink green tea** - Green tea is especially rich in antioxidants. Research has shown that women who drink either green or black tea regularly have stronger bones than those who don't.

**Note:** *Calcium plays an important role in maintaining bone health. CALCIUM ALONE CANNOT PREVENT OR CURE OSTEOPOROSIS, but it is an important part of an overall prevention or treatment program.*

**FREE CARDIOVASCULAR HEALTH SCREENINGS continuing at Diablo Clinical Research**

**Are you at risk?** Research has shown that almost half of all cardiovascular events occur among apparently healthy individuals with low to normal LDL (bad) cholesterol. Recent studies have shown that C-reactive protein (CRP), a marker of inflammation, may be a predictor of cardiovascular events in patients with normal levels of LDL. **CRP can be measured with a simple blood test. This free cardiovascular screening is for:**

~ Men 50 or older    ~ Women 60 or older  
 ~ With No history of prior heart attack, stroke, diabetes, cancer (except skin cancer), uncontrolled high blood pressure or acute liver disease,  
**AND** ~ Patients who are NOT currently taking cholesterol lowering medication or oral hormone replacement therapy

**AND** who may be interested in participating in a medical research study that may ultimately help you and others avoid a future heart attack or stroke.

**Space is limited. For more information or to make your screening appointment, call: (925) 930-7267**  
 Location: Diablo Clinical Research  
 2255 Ygnacio Valley Road, Suite M  
 Walnut Creek

**Note:** *This screening is offered to those not currently enrolled in a clinical study, and who have not previously participated in screening for the Jupiter study.*



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**Advancing Health Newsletter**

We're on the web!  
[www.diabloclinical.com](http://www.diabloclinical.com)

## Are You Postmenopausal and Concerned About Osteoporosis?

If you are:

- 40 to 64 years of age
- Have not had a period for at least 6 months
- Have not had a hysterectomy

You may be eligible to participate in a clinical research study to explore an investigational medication to treat the symptoms of menopause and prevent osteoporosis.

Qualified participants will receive at no cost:

- Study related tests and investigational medication
- Study related physical and gynecological exams
- Mammograms
- Bone density scans, if eligible

Compensation for time and travel is available for qualified participants.

Please call: **Diablo Clinical Research (925) 930-7267** or visit us online at [www.diabloclinical.com](http://www.diabloclinical.com)

Diablo Clinical Research conducts clinical studies in many therapeutic areas. See below for a complete list of areas of study, and check our website for currently enrolling studies: [www.diabloclinical.com](http://www.diabloclinical.com) Please share this newsletter with friends and family, or give us a call to have a copy sent. (925) 930-7267

### Areas of Study

- Anxiety & Depression
- Arthritis
- Carpal Tunnel Syndrome
- Cholesterol
- Chronic Pain
- Diabetes
- Disease Prevention
- Fibromyalgia
- Gastrointestinal Disorders
- High Blood Pressure (Hypertension)
- Men's Health
- Neuropathy
- Obesity/Weight Loss
- Osteoporosis
- Sexual Dysfunction
- Women's Health