You have osteopenia, now what?

Osteopenia refers to bone density that is lower than normal. Osteopenia means that bone loss has occurred but not severely enough to be classified as osteoporosis. Osteopenia has no symptoms and can only be diagnosed by having a bone density measurement. If you have been diagnosed with osteopenia this means that you are at a greater risk, as time passes, of developing osteoporosis.

As people age bones can become thinner as the bone remodeling process occurs. When we age, the cells that are responsible for tearing down the old bone continue at the same pace, or even greater, while the cells responsible for rebuilding new bone slow down. This causes bones to thin and develop a lot of holes, allowing them to become weaker. All people begin losing bone mass after they reach peak bone density which is about the age of 30 years old. The thicker your bones are at about age 30, the longer it takes to develop osteopenia or osteoporosis depending on other risk factors.

Osteopenia may also be the result of one or more other conditions, disease processes, treatments or risk factors. Women start off with a lower peak bone density, than men so they are more likely to develop osteopenia and osteoporosis than men. In both men and women, hormonal changes, eating disorders, absorption issues, chemotherapy, or certain medicines such as steroids can cause bone loss. Risk factors such as smoking, a family history of osteoporosis, and certain races like Caucasian and Asian, are associated with greater likelihood of developing bone loss and fractures.

Continued page 2

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Bone Health

World Health Organization (WHO) definitions of bone health:

**Normal**

T-score above -1.0 (low risk of fracture)

**Osteopenia**

T-score between -1.0 and -2.5 (moderate risk of fracture)

**Osteoporosis**

T-score below -2.5 (high risk of fracture)
Currently available treatments include:

- Actonel (Risedronate) administered by an oral daily or weekly dose.
- Boniva (Ibandronate) administered by an oral monthly or quarterly IV dose.
- Evista (Raloxifene) administered by an oral daily dose.
- Forteo (Teriparatide) administered by a daily injection for 18-24 months.
- Fosamax (Alendronate) administered by an oral daily or weekly dose.
- Prolia (Denosumab) administered by semi-annual subcutaneous injections.
- Reclast (Zometa) administered by an annual IV infusion.
- Hormone Replacement Therapy administered in a variety of forms.

If you have been diagnosed with osteopenia, your physician may choose a variety of options depending where you are on the scale of bone density.

- He/she could choose to recommend a bone healthy diet, and have a follow-up bone scan in two years.
- He/she could choose to put you on an osteoporosis medication based on your personal risk factors.

An important thing to remember is that if you have a low-trauma fracture of a long bone, and you have a diagnosis of osteopenia, then your diagnosis automatically changes to osteoporosis. A previous history of a non-traumatic fracture increases your chances of having another fracture and you should be treated as having osteoporosis.
New endowment fundraiser - Move it or Lose it 5k

Osteoporosis is a dreaded disease and although research has enabled us to find many treatments that decrease the number of broken bones due to osteoporosis, we are far from a cure. Many promising avenues of research are being explored, but unfortunately it is becoming very difficult to obtain funding for research studies. In order to make up for the National Institutes of Health (NIH) and other funding reductions, we have established the Creighton Endowment for Osteoporosis Research to support the ongoing work of the Osteoporosis Research Center. This is necessary in order to keep our research labs intact through the ups and downs of funding and to provide discretionary funds for developing preliminary data to support new initiatives in this research.

2014 marked the first annual endowment fundraiser, the Move it or Lose it, 5k run/1 mile walk, which was held Saturday, May 10, 2014 at Zorinsky Lake Park, in West Omaha, Neb.

The endowment grew by over $8,000, with the hard work from the following members of the advisory board: Michon Abts, Kathryn Clark, Lynette Dvorak, Mary Larsen, Anne Lieben, Kathy McDonald and Mary Monson.

Other volunteers came from the staff of Alegent Creighton Health Creighton University Medical Center (CUMC), a CMA scribe, Creighton University faculty, and students from Brownell Talbot, Hillside Elementary, Mary Our Queen, Skutt and the University of Nebraska at Kearney. Also attending the event was Roberta, the Hiland Dairy spokescow along with her “moo”.

Special thanks to our supporters:
Alegent Creighton Health, Blue Cross Blue Shield of Nebraska, Envoy Inc., Finishing Touches Pet Grooming, Hiland Dairy, Hy Vee, Pappajohn Woodworking, Pets R Us, Trader Joe’s, UBS, RUUFF LUV Doggie Daycare and Hotel, and Mr. and Mrs. Fred Simon.

We also want to thank the 33 booster buddies and each of the 88 participants who helped make this such a successful event.

Save the Date
The next Move it or Lose it 5k run/1 mile walk will be held on Saturday, May 9, 2015 at Zorinsky Lake Park, Shelter #1 - north picnic area (156th Street entrance). Early registration fee is $25 and includes a free T-shirt.

Please visit moveit5k.org to learn more about registering for next year’s 5k/1 mile walk or to make a donation to this important research.
Opportunities to Participate

The Creighton University Osteoporosis Research Center would like you to consider participating in one of our research studies. Below is a list of our current studies in which you might be interested. Please feel free to pass this letter on to friends, family and coworkers who may also be willing to participate.

**Muscle Strength Study (both men and women)**

This study is one of the first clinical research studies for a new treatment for sarcopenia. Sarcopenia is an age-associated loss of muscle mass and function. Loss of muscle strength and function is a major problem for older persons since it can lead to a loss of independence and a greater risk of disability. Persons with sarcopenia often have difficulty performing their activities of daily living. They can become extremely frail and very weak.

The purpose of this study is to evaluate the effect of a new drug on improving muscle strength and function in men and women ages 70 and older. The study will last approximately six months. Compensation for time and travel will be provided for qualified participants.

If you know someone that meets these qualifications, please ask them to contact our research staff at 402.280.2663 and mention the “muscle strength” study.

**Young Women's Bone Health Study**

Currently there is no medication approved for treatment of pre-menopausal women with low bone mass or osteoporosis. We are collaborating with Columbia University on this project to develop a treatment option for pre-menopausal women with low bone density or history of a broken bone (fracture) as an adult.

If you are a female between the ages 20-45 and are having regular periods, please contact our office at 402.280.2663 for a free bone density screening. This study will provide free medication and a $400 stipend for participation.

**2-4-6 Formula Research Study**

Do you have a baby between six weeks to two months of age that is being exclusively formula fed? Then this is an invitation for you and your baby to participate in a study on infant growth and nutrition.

The study involves three visits when your child is 2 months, 4 months and 6 months. You will receive a $50 gift card for each completed visit and we offer flexible scheduling. Parents must be 19 years of age or older and speak English.

Pilot study sponsored by Creighton University and the Osteoporosis Research Center.

For more information or to enroll please contact Misty Swartz at 402.280.4839.

If you are interested in learning more about any of these studies, please contact us at 402.280.2663 (BONE) or toll free 800.368.5097. Please leave a message with your name, phone number and best time for us to call. Or visit osteoporosis.creighton.edu and click on ORC Research Opportunities.
Recent Donations to the Creighton Endowment for Osteoporosis

In Memory of

Dawn Bussenbark
From Henry Davis
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Loretta West
From Everett West
Marianne K. Festersen
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Sister Anne Evers
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Dr. and Mrs. Robert Recker
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From the extended Recker family
My very good friend
From Linda Dobry
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In Appreciation of the Workers of the ORC
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If you are interested in making a donation, please send a contribution to:
Creighton Endowment for Osteoporosis
In memory of Sister Anne Evers
601 North 30th Street, Suite 4820
Omaha, NE 68131
If you have any questions please contact Susan Recker at 402.280.4810
or visit osteoporosis.creighton.edu.
THE GIFT OF GIVING

Consider a donation in honor of a loved one to the Osteoporosis Research Center

Just mail this form to:
Creighton Endowment for Osteoporosis
In memory of Sister Anne Evers
601 North 30th Street, Suite 4820
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A Contribution is enclosed to the Sister Anne Evers Endowed Research Fund

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