

# Bone Health Quick Kit

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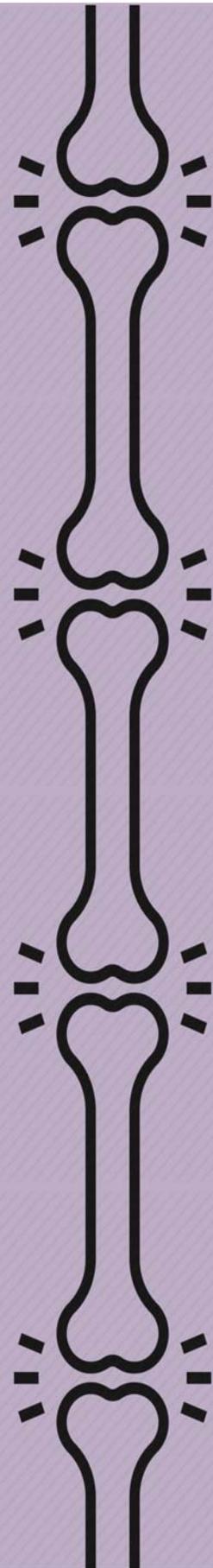
## OSTEOPOROSIS 101

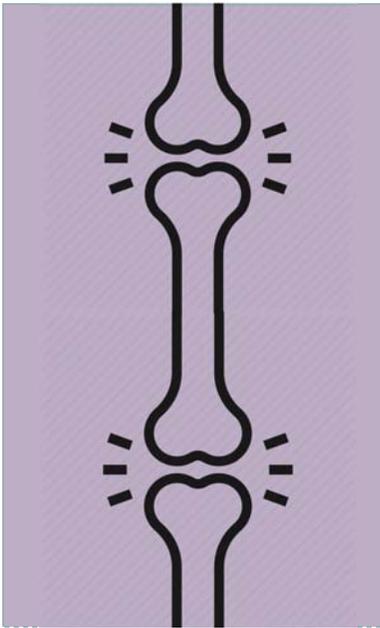
### **When we talk about bone health, what do we mean?**

Bone Health means the development and maintenance of strong bones which are resistant to fracture.

### **What is osteoporosis?**

Osteoporosis means “porous bone” and is characterized by weak bones with low bone mass. It is a “silent” disease, meaning that people who have osteoporosis often don’t know they have it. The first indication that someone has osteoporosis is often a fracture. Severe cases of osteoporosis can result in fractures in any bone simply by performing everyday activities. The later stages of osteoporosis have no cure.





## PATIENT STORIES

More than 25 years ago, as I was beginning menopause, my Internist suggested I take estrogen to prevent osteoporosis. Then, there was concern that estrogen contributed to breast cancer, which was a major disease in my family. I decided not to take the estrogen. I was diagnosed with osteoporosis about 10 years later. With just diet and exercise I was stable for many years. Eventually the osteoporosis became worse. I broke my arm and 2 years later, I shattered my patella. I learned two things throughout this process: one, many doctors were, and maybe still are, not well informed, and two, I became my own advocate. ~ Jo Ann M.

*“With just diet and exercise I was stable for many years. Eventually the osteoporosis became worse. I broke my arm and two years later I shattered my patella” ~ Jo Ann M.*

## FACTS

~Worldwide, 1 in 3 women and 1 in 5 men aged 50 and over will suffer from an osteoporotic fracture<sup>2</sup>.

~By 2050, the worldwide incidence of hip fracture in women is projected to increase by 240% and 310% in men, compared to rates in 1990<sup>2</sup>.

~10 million Americans have osteoporosis and another 44 million have low bone density<sup>1</sup>.

## STATE PROGRAM EXAMPLES

Several states have implemented successful programs targeting osteoporosis education and bone health promotion. Currently there are about 35 states<sup>5</sup> with osteoporosis related legislation in place.

**Massachusetts:** During the current legislative session (2018) there is a bill (H. 2169) to look at osteoporosis screening and treatment of fractures and how to reduce healthcare costs associated with this disease<sup>6</sup>.

**Arizona:** SB 1248 (2006) An Act Making An Appropriation To The Department of Health Services for Osteoporosis. In 2006 Arizona made grant appropriations for services related to osteoporosis, including an effort to foster collaboration among interested organizations to create a statewide network for conducting osteoporosis screenings, with a special focus on rural and underserved areas<sup>7</sup>.

**Kentucky:** SB 202 (2006) An Act Relating to Osteoporosis. In 2006 Kentucky established a multigenerational prevention and education program that includes a focus on educating health care professionals about national clinical guidelines<sup>5</sup>.



Above: Larry was part of a bone health education program at our annual healthcare summit.

## STATE PROGRAMS CONTINUED

**West Virginia:** Public Health code 10-5M-2 directs the department of public health to establish, promote, and maintain an osteoporosis prevention education program to raise awareness; educate consumers; and train health professionals, teachers and human service workers about the causes of osteoporosis, risk factors, prevention and early detection options, and treatment<sup>8</sup>.

**New Jersey:** Project Healthy Bones is an exercise and education program for people at risk or who have osteoporosis. Project Healthy Bones is a 24 week program for older women and men, and the program is offered at community sites throughout the state<sup>9</sup>.

**New York:** Through legislation the state created the NY State Osteoporosis Prevention Education Program (NYSOPEP) within the NY State Department of Health. This educational initiative makes it possible for all New Yorkers, including the public and healthcare providers, to learn about the prevention, diagnosis, and treatment of osteoporosis<sup>10</sup>.

**Maine:** In 2005 Maine created the Elderly Low Cost Drug Program which sought to provide low-cost prescription and nonprescription drugs, medications and medical supplies to disadvantaged, elderly and disabled individuals. Osteoporosis was a condition included on the list of ailment qualified for the program<sup>5</sup>.

## FACTS

### Risk Factors Include:<sup>3</sup>

- Age
- Gender
- Family History
- Previous Fracture
- Ethnicity
- Menopause

### Modifiable Risk Factors:<sup>3</sup>

- Alcohol
- Smoking
- Low Body Mass Index
- Poor Nutrition
- Vitamin D Deficiency
- Insufficient Exercise

Osteoporosis-related bone breaks cost patients, their families and the healthcare system \$19 billion annually<sup>2</sup>.

In 2014, the average per capita spending for Medicare beneficiaries with osteoporosis was estimated at 56% greater than the spending for beneficiaries without osteoporosis<sup>4</sup>.

## FACTS

What can you do to protect your bones?<sup>3</sup>

- Get enough calcium and vitamin D
- Regular exercise
- Diet: eat more fruits and vegetables
- Avoid smoking and too much alcohol

By 2025, experts predict that osteoporosis will be responsible for 3 million fractures, resulting in \$25.3 billion in costs<sup>2</sup>.

The total cost of hospital stays due to hip replacements in 2013 was \$8.8 billion in the U.S. with \$5.3 billion of the cost being covered by Medicare<sup>4</sup>.

## PRESS RELEASE

With 10 million Americans suffering from osteoporosis and another 44 million with low bone mass, it is estimated that one in two women and up to one in four men over age 50 will break a bone due to osteoporosis in their lifetime. To help raise awareness for osteoporosis and bone health, [ORGANIZATION NAME], is joining advocacy organizations around the world to celebrate May as National Osteoporosis Awareness Month.

Osteoporosis is a condition in which the bones become brittle and fragile from loss of tissue, typically as a result of hormonal changes, or deficiency of

calcium or vitamin D. Regular exercise and good nutrition, including getting the recommended daily amounts of calcium and vitamin D, are essential for building and maintaining bone strength throughout the lifespan. Current osteoporosis treatments have been proven to reduce fractures by 30 to 50 percent.

“Quote” said, [NAME AND ORGANIZATION] “Quote”.

For more information and to learn more about osteoporosis, please visit [WEBSITE].

About [Name of Organization] [Boilerplate]

## DISPARITIES

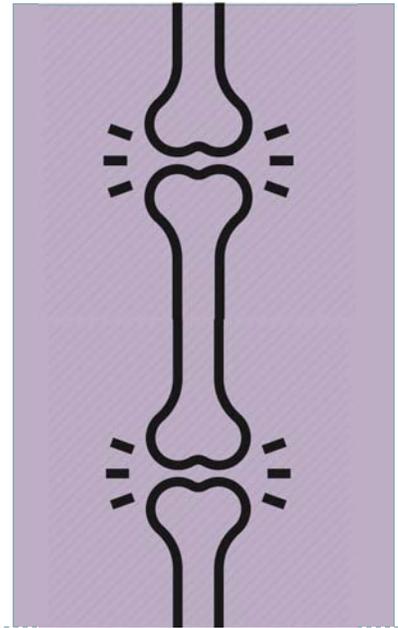
Ethnicity and race are factors that contribute to the incidences of osteoporosis. Understanding ethnic and racial influences on osteoporotic fractures is critical to decreasing the burden of such fractures on patients and society.

- In 2005, 12% of all fractures occurred in nonwhites. By 2025, this percentage will rise to 21%<sup>11</sup>.
- The lifetime risk of hip fracture at age 50 years in the United States is 15.8% and 6.0% in women and men, compared to 2.4% and 1.9% in Chinese women and men, and 8.5% and 3.8% in Hispanic women and men<sup>11</sup>.
- The prevalence of vertebral fractures in women older than 65 years is 70% for white women, 68% for Japanese women, 55% for Mexican women, and 50% in African American women<sup>11</sup>.
- Rates of hip fracture are about 50% lower in African American and Asian women than in white women<sup>11</sup>.

## PATIENT STORY

At age 50 I considered myself quite healthy, as I had been all my life. However, after thanking a hostess after a nice couples' gathering, she gave me a quick, firm hug, and I felt something pop. Eventually I went to my doctor who suggested x-ray imaging, which confirmed a fractured rib. Since it had happened so easily a DXA scan was then suggested to determine my overall bone density. My T score measured minus -4.77, nearly double the baseline score indicating osteoporosis. The age equivalency was listed as 99 years old!

I had joined a nearby gym to work on weight-bearing exercise as well as a program of physical therapy, which I continued for several years. At age 65, I had another scan resulting in a much healthier T-score of minus -2.6. ~Anne S.



*“My T-score measured minus -4.77, nearly double the baseline score indicating osteoporosis. The age equivalency was listed at 99 years old!”  
~Anne S.*

## SAMPLE SOCIAL MEDIA

May is National Osteoporosis Awareness Month. Broken bones are very painful, but for the aging population, weak bones can be deadly. Learn the facts: <https://www.nof.org/preventing-fractures/general-facts/>

#osteoporosis #bones  
#bonehealth  
[@OsteoporosisNOF](https://www.nof.org)

It's National Osteoporosis Awareness Month: did you know 1 in 3 women and 1 in 5 men aged 50 and over will suffer from an osteoporotic fracture? #KnowtheFacts  
#bonehealth  
[@OsteoporosisNOF](https://www.nof.org)

Are you over 50 and have broken a bone recently? You could have osteoporosis. Learn how to protect your bones: <https://www.nof.org/preventing-fractures/prevention/>  
[@OsteoporosisNOF](https://www.nof.org)

By 2025 osteoporosis in America will cost us \$25.3 billion. Prevention can reduce that cost. #bonehealth  
#preventionmatters  
[@OsteoporosisNOF](https://www.nof.org)

Do you know what you can do to protect your bones? Learn more: <https://www.nof.org/preventing-fractures/general-facts/> #bonehealth  
[@OsteoporosisNOF](https://www.nof.org)

## FACTS

A woman's risk of breaking a hip due to osteoporosis is equal to her risk of breast, ovarian and uterine cancer combined<sup>2</sup>.

A man aged 50 or older is more likely to break a bone due to osteoporosis than he is to get prostate cancer<sup>2</sup>.

## PATIENT STORIES

I always lived a very active lifestyle, spending five years in the Navy and working in electrical engineering. At age 42, following a bad fall while roller blading with my son, I suffered two spinal fractures. Due to the nature of the fall, osteoporosis was not originally expected to have played a role in the fractures. Two years later, I experienced a third spinal fracture. However, this fracture was not due to an impact, which led my doctors to explore further, and they diagnosed me with osteoporosis. ~Ray M.

## WOMEN IN GOVERNMENT

Women In Government is a national, non-profit, non-partisan organization of women state legislators.



## SAMPLE RESOLUTION

WHEREAS, Osteoporosis is a disease characterized by low bone mass, structural deterioration of bone, and increased susceptibility to fractures, especially in older women; and

WHEREAS, Osteoporosis is a major public health threat for an estimated 54 million Americans; and

WHEREAS, One in every 2 women and one in every 4 men over the age of 50 will be affected by osteoporosis and low bone density; and

WHEREAS, Annual osteoporosis costs for America's healthcare system top \$ 19 billion and will double by 2050, as America's population ages; and

WHEREAS, Osteoporosis is responsible for 2 million bone fractures annually; and

WHEREAS, Osteoporosis is often thought of as a disease more prevalent amongst elders; in actuality, bone health is a concern for people of all ages; and

WHEREAS, Substantial risk of osteoporosis has been reported in persons of all ethnic backgrounds; and

WHEREAS, Osteoporosis is a preventable and treatable disease; and

WHEREAS, Building strong bones throughout childhood and adolescence can be the best defense against developing osteoporosis later in life; and

WHEREAS, Almost 90% of bone mass is acquired by age 18 in women and by age 20 in men; and

WHEREAS, Only one in 3 Americans receive enough calcium in their daily diet, a problem which is especially severe for children and adolescents in critical years of bone development; and

WHEREAS, Optimum bone health and prevention of osteoporosis can be maximized by a balanced diet rich in calcium and vitamin D, weight-bearing exercise, and a healthy lifestyle with no smoking or excessive alcohol intake; and

WHEREAS, Osteoporosis is often called the "silent disease" because bone loss can occur without symptoms and may not be detected until a fracture occurs; and

WHEREAS, A bone mineral density test can be performed to identify osteoporosis and determine the risk for fractures and the severity of the disease; and

WHEREAS, The month of May has been designated as National Osteoporosis Awareness Month; therefore, be it

RESOLVED, BY THE [FILL IN YOUR STATE INFO] GENERAL ASSEMBLY OF THE STATE OF [STATE], that we recognize and appreciate the ideals, goals, and activities of National Osteoporosis Awareness Month and urge the people of [STATE] to observe appropriate good health programs and activities with respect to preventing and controlling osteoporosis.

## CITATIONS

<sup>1</sup>“Fast Fact About Osteoporosis.” *National Osteoporosis Foundation*. 2016. <https://cdn.nof.org/wp-content/uploads/2016/04/Fast-Facts-About-Osteoporosis.pdf>. 21 March 2018.

<sup>2</sup>“Osteoporosis Fast Facts.” National Osteoporosis Foundation. 2015. <https://cdn.nof.org/wp-content/uploads/2015/12/Osteoporosis-Fast-Facts.pdf>. 21 March 2018.

<sup>3</sup>“Who’s At Risk.” *Osteoporosis & Musculoskeletal Disorders*. International Osteoporosis Foundation. <https://www.iofbonehealth.org/whos-risk>. 21 March 2018.

<sup>4</sup>“Osteoporosis & Hip Fractures.” *Investment in Research Saves Lives and Money*. Research America!: An Alliance for Discoveries in Health. [https://cdn.nof.org/wp-content/uploads/2017/02/OsteoporosisHip-Fracture\\_2017.pdf](https://cdn.nof.org/wp-content/uploads/2017/02/OsteoporosisHip-Fracture_2017.pdf). 23 March 2018.

<sup>5</sup>*National Action Plan for Bone Health: Recommendations from the Summit for National Action Plan for Bone Health*. National Coalition for Osteoporosis and Related Bone Diseases. <http://www.oif.org/site/DocServer/BoneHealthReport.pdf>. 2015.

<sup>6</sup>“An Act Relative to Osteoporosis Screening and Treatment to Prevent Fractures and Reduce Health Care Costs.” *Bill H.2169*. 190<sup>th</sup> General Court of the Commonwealth of Massachusetts. 2018. <https://malegislature.gov/Bills/190/H2169>. 21 March 2018.

<sup>7</sup>“An Act Concerning Making An Appropriation to the Department of Health Services for Osteoporosis.” *Senate Bill 1248*. State of Arizona. <https://www.azleg.gov/legtext/47leg/2r/bills/sb1248h.pdf>. 21 March 2018.

<sup>8</sup>“Osteoporosis Prevention Education Act.” *West Virginia Code*. West Virginia Legislature. <http://www.wvlegislature.gov/WVCODE/Code.cfm?chap=16&art=5M#05M>. 23 March 2018.

<sup>9</sup>“Project Healthy Bones.” *Division of Aging Services*. State of New Jersey: Department of Human Services, Division of Aging Services. 2013. <http://www.state.nj.us/humanservices/doas/home/project.html>. 21 March 2018.

<sup>10</sup>“About NYSOPEP.” *Statewide Osteoporosis Resource Center*. New York State Osteoporosis Prevention and Education Program. <http://www.nysopep.org/AboutUs.shtml>. 2 April 2018.

<sup>11</sup>“Defining Ethnic and Racial Differences in Osteoporosis and Fragility Fractures.” *Clinical Orthopaedics and Related Research*. National Center for Biotechnology information, U.S. National Library of Medicine, 23 March 2011. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3111798/>. 23 March 2018.