POST FRACTURE PREVENTION PROGRAM:

UNDERSTANDING OSTEOPOROSIS & THE FRACTURE LIAISON SERVICE TO HELP YOU AVOID FUTURE BONE BREAKS

Understanding Osteoporosis

Osteoporosis is a condition that causes the bones to become weak and brittle. This disease happens when you lose too much bone, make too little bone or both. As a result, your bones may break from a minor fall or, in serious cases, even from sneezing or bumping into furniture.

When a bone break occurs due to a fall from standing height or less, the cause of the break is usually considered to be caused by the patient's osteoporosis or low bone mass. The most common places where broken bones happen are the wrist, hip and spine but any bone may be affected.

YOUR BONES

Some people think of bones as hard and lifeless, but they are actually living, growing tissue. Your bones are made up of three major components that make them flexible and strong:

- collagen, a protein that gives bones a flexible framework
- calcium-phosphate mineral complexes that make bones hard and strong
- living bone cells that remove and replace weakened sections of bone

Even after children and teens stop growing taller, they continue to make more bone than they lose. This means their bones continue getting denser until they reach what experts call peak bone mass, the point when you have the greatest amount of bone you will ever have.

BONE QUALITY + BONE DENSITY

BONE STRENGTH

After you reach peak bone mass, the balance between bone formation and bone loss might start to change. You may start to slowly lose more bone than you form. In midlife, bone loss usually speeds up in both men and women. For most women, bone loss increases after menopause, when estrogen levels drop sharply. In fact, in the five to seven years after menopause, women can lose up to 20 percent or more of their bone density. Bone loss can also occur from certain medicines or medical conditions.

Long-Term Effects Of Osteoporosis

Fractures or broken bones fractures are one of the most common long-term effects of osteoporosis. The most common fractures caused by osteoporosis occur in the wrist, spine or hip. Further complications can arise from the healing process, as well as from the loss of mobility that often occurs after a spine or hip fracture.

SPINAL CURVATURE

In people with osteoporosis, the spinal bones (vertebrae) may become weak and break. Breaking one or more bones in the spine can cause sharp back pain that does not go away, or there can be no pain at all. After having several of these breaks, people may start to have a curved spine and lose height. When this happens, the spine curves, which can result in back pain, height loss, and difficulty breathing since there is less space under the ribs.

HAVE YOU LOST HEIGHT SINCE YOUR 20'S?

LOSS OF MOBILITY

Bones with osteoporosis take longer to heal than healthy bones. Recovering from a fracture can have a dramatic effect on your independence and lifestyle. With time, medication, and physical therapy patients can rebuild bone strength.

Who Gets Osteoporosis

THERE ARE A VARIETY OF FACTORS

Both controllable and uncontrollable; that put you at risk for developing osteoporosis.

UNCONTROLLABLE RISK FACTORS

- being over age 50
- being female
- menopause
- family history of osteoporosis
- low body weight/being small and thin

CONTROLLABLE RISK FACTORS

- not getting enough calcium and vitamin d
- not eating enough fruits and vegetables
- getting too much protein, sodium and caffeine
- having an inactive lifestyle
- smoking
- drinking too much alcohol
- losing weight

Managing and Treating Osteoporosis

There are steps you can take to slow bone loss, or stop its progress. In some cases, you may even be able to improve bone density and reverse the disorder to some degree. At the present time, there is no cure, but by following these guidelines, you can reduce your chances of another broken bone.

DIET

Getting the right amount of calcium and vitamin D is essential to bone health.

CALCIUM-RICH FOOD SOURCES

Dairy products, such as low-fat and non-fat milk, yogurt and cheese are high in calcium. Certain green vegetables and other foods contain calcium in smaller amounts. Some juices, breakfast foods, soymilk, cereals, snacks, breads and bottled water have calcium that has been added. If you drink soymilk or another liquid that is fortified with calcium, be sure to shake the container well as calcium can settle to the bottom.

SOURCES OF VITAMIN D

There are three ways to get vitamin D; sunlight, food, and supplementation. Vitamin D is naturally available in only a few foods, including fatty fish like wild-caught mackerel, salmon and tuna. Vitamin D is also added to milk and to some brands of other dairy products, orange juice, soymilk and cereals.

EXERCISE

Bones become stronger and denser when you place demands on them. The amount of exercise your bones can handle will vary from person to person. Check with your health care provider before beginning any exercise regimen! Exercise can also improve your balance and strength and helps to prevent falls.

LIFESTYLE

If you smoke, stop. Limit alcohol to no more than 2 drinks per day. Smoking and excessive alcohol are damaging to your bones.

THERE ARE ALSO MEDICATIONS AND DISEASES THAT CAN CAUSE BONE LOSS AND INCREASE YOUR RISK OF OSTEOPOROSIS.

MEDICATION

There are medications available to reduce the risk of broken bones. These medicines either (1) slow or stop bone loss - Antiresorptive Medications or (2) rebuild bone – Anabolic Medications.

ANTIRESORPTIVE MEDICATIONS

Antiresorptive medicines slow the bone loss that occurs in the breakdown part of the remodeling cycle. These drugs include bisphosphonates, denosumab, estrogen and estrogen agonists/antagonists. When people first start taking antiresorptive medicines, they stop breaking down bone as quickly as before, but still make new bone at the same pace. Therefore, bone density may increase. The goal of treatment with antiresorptive medicines is to prevent bone loss and lower the risk of breaking bones.

ANABOLIC MEDICATIONS

Anabolic medicines rebuild bone. Teriparatide, a form of parathyroid hormone, is the only FDA approved anabolic medicine available at this time. The goal of treatment with teriparatide is to build bone and lower the risk of breaking bones.

Fall Prevention

Each year about one-third of all persons over age 65 will fall. Many of these falls result in broken bones. Some common causes of falls include outdoor and indoor hazards.

OUTDOOR SAFETY TIPS

- wear low-heeled shoes with rubber soles for more solid footing (traction), and wear warm boots in winter
- use hand rails as you go up and down steps and on escalators
- if sidewalks look slippery, walk in the grass for more solid footing
- look carefully at floor surfaces in public buildings
- keep your porch, deck, walkways and driveway free of leaves, snow, trash or clutter
- turn on the light outside your front door before leaving your home in the early evening

IF YOU HAVE OSTEOPOROSIS, YOU CAN TAKE STEPS INSIDE AND OUTSIDE YOUR HOME AND IN YOUR DAILY ROUTINE TO PREVENT FALLS. TAKING THESE STEPS CAN HELP YOU ENJOY AN ACTIVE AND HEALTHY LIFE.

- use a shoulder bag, fanny pack or a backpack purse to leave your hands free
- stop at curbs and check the height before stepping up or down

INDOOR SAFETY TIPS: FALL-PROOFING YOUR HOME

- place items you use most often within easy reach
- use assistive devices to help avoid strain or injury. For example, use a long-handled grasping device to pick up items without bending or reaching. Use a pushcart to move heavy or hot items from the stove or countertop to the table
- if you must use a stepstool, use a sturdy one with a handrail and wide steps
- if you live alone, consider wearing a personal emergency response system (pers). also consider having a cordless telephone or cell phone to take from room to room so you can call for help if you fall
- remove all loose wires, cords and throw rugs
- keep floors free of clutter
- do not use slippery wax on bare floors
- keep furniture in its usual place
- install grab bars on the bathroom walls beside the tub, shower and toilet
- use a non-skid rubber mat in the shower or tub
- if you are unsteady on your feet, you may want to use a plastic chair with a back and non-skid legs in the shower or tub and use a handheld showerhead to bathe
- use non-skid mats or rugs on the floor near the stove and sink
- clean up spills as soon as they happen (in the kitchen and anywhere in the home)
- place light switches within reach of your bed and a night light between the bedroom and bathroom
- get up slowly from sitting or lying down since this may cause dizziness
- keep a flashlight with fresh batteries beside your bed
- keep stairwells well lit, with light switches at the top and the bottom
- install sturdy handrails on both sides
- mark the top and bottom steps with bright tape
- make sure carpeting is secure

What is a Fracture Liaison Service?

A Fracture Liaison Service (FLS) fracture prevention program provides a bone evaluation and develops a personalized plan for you to reach and maintain your bone health to prevent future broken bones (also called fractures). If you are age 50 or older and have had a broken bone our FLS will be contacting you.

This packet of materials provides the information and resources you will need to understand how the FLS helps you reduce the risk of suffering from another broken bone. Your active participation and positive attitude will help you along this journey to better bone health.

This booklet will give you basic information about maintaining bone health.

Your Initial Visit

During your first visit we will review your medical history, the history of your recent fracture, evaluate your risk for another broken bone and discuss treatment options.

YOUR PROVIDER MAY ASK:

- **Have you had a bone density test? If so, when was it done?**
- **Have you ever been told that you had bone loss, weak bones, osteoporosis or osteopenia?**
- **Do you take calcium or vitamin D supplements?**
- **Have you had any other broken bones since you turned age 50?**

You will be scheduled for a follow-up visit one to three months after your initial visit. At that time, your provider will help evaluate your treatment and continue planning your care.

AT NO TIME DOES THIS INFORMATION REPLACE YOUR DOCTOR'S ADVICE AND ORDERS. SHOULD YOU HAVE QUESTIONS, PLEASE CALL YOUR DOCTOR.

Lab Work and Bone Screening

In order to understand your current bone health and determine why you had a broken bone, your healthcare provider will use a combination of the following methods:

MEDICAL HISTORY

Your healthcare provider will ask you questions to get a complete medical history. In particular, you will be asked questions about any personal history of fracture, family history of fractures and other risk factors for osteoporosis. It is important to let your doctor know the medications you have been taking during the last 10 years because some are known to increase an individual's risk for low bone mass and fractures.

PHYSICAL EXAMINATION

Your doctor will give you a limited physical exam with emphasis on the spine or backbone. Many fractures in the spine go unnoticed by patients. Loss of height is often a sign of vertebral or spinal fractures.

LABORATORY TESTS

There are some lab tests that are specific to bone health. We will check your medical records to see if any of these have been performed in the last six months. If so, we will not repeat these tests; and if not, we will need to perform the lab work.

X-RAYS

An x-ray can help your provider determine if you have had any fragility fractures of the spine.

BONE DENSITY SCAN

If the above tests indicate probable loss of bone density, we will make arrangements for you to have a bone density scan if one has not been done in the last year. This will help your doctor confirm a diagnosis of osteoporosis and document the severity of bone loss.

With most types of bone density tests, a person remains fully dressed. The test usually takes less than 15 minutes. Bone density tests are non-invasive and painless. This means no needles or instruments are placed through the skin or body. A central DXA uses very little radiation. You are actually exposed to 10-15 times more radiation when you fly roundtrip between New York and San Francisco.

Patient Financial Service Guidelines

We understand your concerns about the costs of your healthcare. Insurance claims, along with doctor and hospital bills, can be confusing.

HOSPITAL AND DOCTOR BILLS

Fracture Liaison Service's are considered a medical necessity by most insurance providers, because of the risk of fractures. Your insurance will likely cover these expenses. Please contact your insurance provider to find out which services are covered.

HEALTH INSURANCE

If you do receive a bill, be sure to forward it your insurance provider to have them pay their portion first. Some insurance providers cover 100 percent for these preventative services.

PATIENT RESPONSIBILITY

Deductibles, co-insurance, co-pays and other balances are due when you receive your services.

Resources

Broken bones in people age 50 or older are very often caused by osteoporosis. If you've just had a fracture or have just been diagnosed with osteoporosis, you probably have a lot of questions. We realize the diagnosis can be worrisome and even overwhelming, but we're here to help.

Here are some Web sites that can provide high-quality health information to help you get started learning more about osteoporosis and the steps you can take to protect your bones.

National Osteoporosis Foundation
WWW.NOF.ORG

National Bone Health Alliance
WWW.NBHA.ORG

Fracture Prevention CENTRAL (NBHA resource center on FLS programs)
WWW.FRACTUREPREVENTIONCENTRAL.ORG

Meet the Fracture Liaison Team

Enter Fraction Liaison Team Names and Numbers Here

FLS Appointment Worksheet

Date: _____ Time: _____

Name of Healthcare Provider: _____

Questions for healthcare provider: (**FILL OUT IN ADVANCE**) _____

_____

Answers: (fill out at appointment) _____

_____

Notes/Additional questions: _____

_____

_____

Next appointment date: _____ Time: _____

Healthcare provider: _____

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