

## Your Bones In Your Hands

### *Do you have osteoporosis?*

### *Are you overwhelmed and perhaps confused by the amount of information available?*

For starters, let's look at the facts. We can begin by taking a walk through the proven methods to building stronger bones and reduce fracture risk.

Osteoporosis is a condition of weak/brittle bones caused by an imbalance of dead bone removal and new bone replacement. Typically, post-menopausal woman will build new bone much slower than the rate of bone removal; this ongoing process is called remodeling.

WHO (World Health Organization) has set the standard for normal bone to peak at age thirty; from that point bone density declines. Often, the first sign of osteoporosis is a fracture. After an osteoporotic fracture, especially of the hip, it is very rare that the person returns to a normal life.

The WHO has set the delineating mark between osteopenia, which is weakening of the bone, and osteoporosis, which is very porous bone, to be -2.5 as seen on a DEXA scan. Numbers below this point represent osteopenia and numbers above represent osteoporosis. The T score, -2.5, will be monitored every year or every two years as you partake of an intervention program to improve your bone health.

### *Are you at risk?*

To determine your risk of osteoporosis, ask yourself the following: As a child, did you have a calcium rich diet? Did you engage in impact activities? Were you outside in the sunshine? Did you have any long-term illnesses?

As an adult, you may have a medical condition that can lead to bone loss. Many conditions can lead to bone loss, but five of the major ones are: alcoholism, MS, hyperparathyroidism, Celiac disease, and chronic stress.

There are also medications with definite/possible links to bone loss. A few of these include steroids, anticonvulsants, heparin, some SSRIs, and barbiturates.

We shall now move on to **three areas** that you can control...

The following are essential whether you are taking pharmaceuticals or not.

## 1. Exercise

Exercise has been shown to build bone and reduce fracture risk. My program, Osteofitness™ produces positive outcomes with a strict adherence to the following:

- Fall / fracture prevention
  - posture alignment
  - functional balance
  - proprioception agility/coordination training
- Full warmup of all joints and muscles
- Integrative progressive strengthening to all osteoporotic sites
- Movements are varied in design for optimal muscle function
- Modifications offered for each set
- Suggestions for home workouts and self-care continually explained

## 2. Nutrition

Four nutrients are essential for building bone: calcium, magnesium, Vitamin D3, and Vitamin K.

- Calcium
  - 1200mg per day
  - No more than 300mg by supplement.
  - Food sources: dairy, almond milk, almonds, beans, and kale.
- Magnesium
  - 340mg per day
  - Foods sources: vegetables, whole grains, beans, nuts and seeds.
- Vitamin D3
  - 800-1000IU per day
  - Foods sources: fatty foods, egg yolks, and supplements.
- Vitamin K
  - 80-120mcg
  - Foods sources: dark leafy green vegetables and animal proteins.

## 3. Stress

Stress can destroy the effects of pharmaceuticals, nutrition and exercise, due to the effects of cortisol. According to Dr. Meryl LeBoff, a leading osteoporosis specialist, “increased cortisol is associated with lower bone density, inhibiting bone growth. Therefore, cortisol and stress have to be managed.

*If you have more questions, contact me at [ikierwellness@osteofitness.com](mailto:ikierwellness@osteofitness.com)*

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