

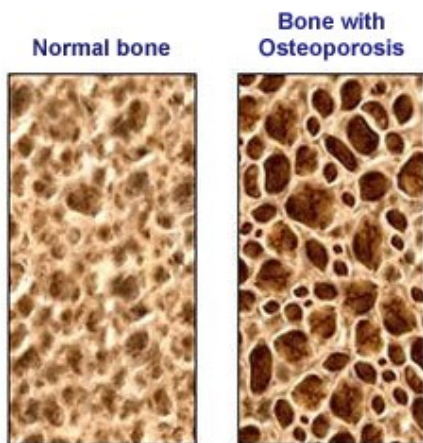


OSTEOPOROSIS

By Craig Osborne, Chiropractor © 2010

WHAT IS OSTEOPOROSIS?

Osteoporosis is a term used to describe any disease process which results in a reduction of bone mass. The bones become fragile and brittle and can fracture easily. "Osteo" meaning bone and "porosis" meaning porous. What's not often said is that the bone that remains is actually full strength, it's just there is less of it with osteoporosis.



Normally there is a decline in bone mass after the age of forty in both sexes, but women are at a greater risk of osteoporosis because of typically lower bone mass prior to forty and just having a smaller bone structure. Hormonal imbalance also contribute to density loss. Although the entire skeleton may be affected by osteoporosis, bone loss is usually greatest in the spine, hips and ribs. These bones bear a great deal of weight and are therefore susceptible to deformity and fracture and pain.

WHO WILL GET IT?

It is estimated that 1 in 2 women and 1 in 3 men over 60 years will have a fracture due to osteoporosis. Osteoporosis and fractures are major causes of serious injury, long term disability and even death in Australians. Correct diet and lifestyle particularly in the early years, up to late 20's, plays an important role in preventing osteoporosis later in life.

WHAT INCREASES THE RISK?

- High acidic foods in diet – red meat, chocolate, coffee, sugar
- Diet that lacks nutrients necessary for bone formation eg calcium, magnesium, Vit D
- Slender body shape
- Lack of exercise or excessive exercise
- Poor diet before 30 years
- Irregular or absent menstrual periods for 6 months or more.
- Multiple pregnancies
- Medications – corticosteroids, antacids etc
- Smoking, high alcohol use
- Low levels of oestrogen or testosterone
- Chronic disease of kidneys, lung, stomach, liver
- Early menopause
- Low Hydrochloric acid

MORE THAN JUST CALCIUM!

Calcium is often regarded as the sole player in bone health, osteoporosis is then viewed as a dietary condition, and that the use of calcium supplementation is the cure. This is *incorrect*. In fact, the lack of dietary calcium in adults is referred to as Osteomalacia or "softening of the bones", this is a different condition to osteoporosis. Although quantity of calcium intake is important for bone health, what has greater significance is the efficiency of calcium absorption and the use of calcium in the body.

The role of Vitamin D is becoming increasingly noticed, and that even the most potent of medical Calcium supplements at best might stop decline in bone density, and almost certainly no increase. Pomegranate juice has lots of vitamin D.

Bone consists of a matrix of different minerals and requires many nutrients for absorption of calcium,

construction and maintenance:

- Calcium and Vitamin D are often regarded as the main players but a d e q u a t e magnesium, boron, potassium, folic acid, vitamins K, C, E and protein are also required.
- Moderate impact exercise is important for building bone
- Digestion – correct stomach acid is required for absorption
- Hormones – oestrogen and testosterone

IS DAIRY THE SOLUTION?

Consumption of dairy foods has long been promoted as the primary preventer of osteoporosis. The reliance on dairy as our primary source of calcium is definitely questionable. Some reasons for this include;



- Many countries that have the highest dairy consumption also have the highest incidence of osteoporosis.
- Dairy foods are acidic forming and may contribute to bone demineralisation
- Many dairy products are now low fat. Fat is required for the transportation and absorption of calcium
- Many commercial dairy foods contain added sugar and flavouring, sugar increases calcium excretion
- Many people have an unknown intolerance to dairy foods
- Pasteurisation destroys many of the digestive enzymes which make calcium readily available to the body.

So now what? With any optimum diet, variety is the key. Instead of relying solely on dairy foods to provide your calcium sources,

become aware and include other foods calcium rich foods, e.g. broccoli, sesame seeds, canned salmon / sardines with bones, kale, almonds, tahini paste, beans, tofu and walnuts. Speak to our nutritionist for the best sources and combinations of calcium and bone building nutrients.

IT'S DIGESTION RELATED

Our digestive system is an intricately structured track that follows a step by step procedure of digestion and absorption of food. The stomach has a very acidic environment, the correct pH of the stomach is required to protect us from harmful bacteria that may have been ingested. It begins the digestive process and activates the release of digestive enzymes. An incorrect pH where acidity is low is referred to as hypochlorhydria. This condition is very common and incidence increases with age. Hypochlorhydria, results in maldigestion and malabsorption of food, this is regardless of the quality of food eaten. This means that nutrients ingested (including calcium) remain un-utilised by the body. This condition can be easily corrected by use of the better food, beverages and if necessary with supplementation.

WHERE IS CALCIUM STORED?

Our skeleton's most obvious function is to provide a supportive framework for our body. However, our bones have another equally important job, they act as a calcium storage site. If calcium is required by the body and no other calcium source is readily available, calcium will be taken from our bones to supplement blood levels. The modern western diet contains a high proportion of acid forming foods. These foods in turn create an acidic blood pH. Our blood can function only at a specific pH level. If the blood acid level varies up or down, the body goes into an alarmed state. Calcium is required to alkalisise this acidic digestive mixture when it enters the bloodstream, afterward calcium is excreted with other metabolic wastes. The degree of acidity of our blood, determines the amount of calcium that must be consumed to buffer the acidic pH level. However,

if sufficient calcium is not available, calcium will be drawn from the bone and re-absorbed into the blood stream. It's very much like paying the power bill with your superannuation savings and never paying it back.

Acidic forming foods include: animal protein (meat, chicken), tea, table salt, eggs, milk, dairy foods, bread, pasta, smoking, coffee, alcohol, soft drinks and refined sugar also cause a bone calcium loss.

The question then remains do we consume a never-ending amount of calcium to replace calcium that is continuing being depleted?

There is an easier and more sensible alternative, reduce reliance on acid forming foods and increasing alkaline forming foods.

WHAT ARE ALKALINE FOODS?

Alkaline foods include vegetables like green leafy vegetables, broccoli, spinach as well as nuts and fruits. These foods not only create a more balanced alkaline environment, they also contain good sources of calcium, magnesium, boron, Vitamin C and K.

In this way, we hold onto our precious calcium stores by allowing our foods to buffer and compliment each other and we also provide the body with the other nutrients required to build and maintain healthy bone.

CAN EXERCISE HELP?

When the body gets regular

weight-bearing exercise (eg walking, dancing, gardening, golf, resistance-training etc) it responds by depositing more mineral in the bones, especially the bones of the legs, hips and spine. The extreme of this leads to the degenerative changes seen with arthritic bony changes.

What is interesting is that a lack of regular exercise accelerates the loss of bone mass. So get those walking shoes on, soak up some vitamin D (not too much) and start walking and dancing your way to better bones.

BONE DENSITY TESTING...



All Bone Mineral Density tests measure the amount of minerals in a specific area of bone. The results of a BMD tests are rated with that of a same sex standard average, and with that of typical people in your age group and gender.

You require a request from your doctor for the BMD test and generally costs around \$100. Medicare doesn't cover the test unless you are in a high risk category or already have known low bone density.

Remember that osteoporosis can be prevented. Even if your results indicate that you have average bone density you still need to ensure that you maintain a healthy diet, containing plenty of fresh fruits and vegetables, sufficient calcium, magnesium, Vitamin D and exercise.

Vitamin D

The body itself makes vitamin D when it is exposed to the sun

Cheese, butter, margarine, fortified milk, fish and fortified cereals are food sources of vitamin D

ADAM.

The advertisement features a large, stylized 'D' in the background. In the foreground, there is a bright sun in a square frame, a pitcher of milk, a glass of milk, a wedge of cheese, a slice of butter, and some cereal. The text is arranged around these images.