

## More than just Bones

All your life you are told to drink your milk, but balked at the idea as you were growing up. Some people develop softer bones as they grow older; this is referred to as osteoporosis. This is a disease of thinning bone tissue and as a result there is a loss in bone density over time, making the bones more weak and brittle. When bones are affected even mild stresses can result in fractures. The bones weaken when they become low in calcium, phosphorus and other needed minerals and as a result the body fails to make new bone. Ten million Americans are affected with osteoporosis and 18 million have low bone mass which is called osteopenia. Although both men and women can get osteoporosis, it's usually associated as a woman's disease because it's found twice as often in women than men.

The signs and symptoms of the disease are insidious. Early in the disease process there are little if any symptoms exhibited. Later in the disease process an individual may show:

- Stooped posture
- Neck pain
- Height decreases over time.
- Low back pain
- Fractures
- Bone pain

Research shows that fluctuation of hormones can also play a role in the possibility of developing osteoporosis. A drop in estrogen in women at menopause is a factor to consider and men also can experience a drop in testosterone or may engage in excessive use of corticosteroids. All these factors can lead to the development of osteoporosis.

In addition, there are many other risk factors which are believed to contribute to osteoporosis:

- Research has shown that Caucasians or people of Southeast Asian decent are predisposed to an increase risk of developing osteoporosis.

- If someone in your familial history has the disease that could increase your risk of developing it.
- Tobacco use shows an increase in tendency for developing the disease.
- Eating disorders such as anorexia or bulimia are at higher risk of development of the disease.
- Problems with excess thyroid hormone can cause bone loss can contribute to development of the disease.
- Certain medications and diuretics can also lead to osteoporosis.
- Those who have had breast cancer are at increased risk.

Life style decisions that can lead to the development of the disease are consuming low calcium, having a sedentary lifestyle, and excess soda consumption. The caffeine in sodas may interfere with calcium absorption and the diuretic effects may decrease mineral loss. The phosphoric acid in sodas may add to bone loss. Certain medical conditions that decrease calcium absorption can predispose one to osteoporosis.

Tests that can be performed to detect the possibility of bone loss include x-rays, CT's of the bone or the BMD (Bone mineral density) done by a DEXA Scan. This scan measures the demineralization of the bones. So when compared, a health care provider can detect if the bones are stabilized or decreased in bone mass.

There are various treatments a physician may prescribe to slow down the progression of bone loss.

- Bisphosphonates – This is used for the prevention or treatment of the disease. ie, Fosomax, Actonel
- Raloxifene – This medication can reduce risk of spinal fracture almost by 50%.
- Hormone Therapy – This treatment runs risks associated coronary heart disease, stroke and blood clots.
- Calcitonin –When using this treatment, it slows the rate of bone loss and relieves bone pain. Examples are Macalgin, or Calcimar)

- Tamoxifen – This blocks estrogen effect on breast tissue. Reduces risk of breast cancer

There are many self techniques that you can utilize to help in combating the disease. Concentrate on your posture. Sit and stand as tall as possible. Watch your diet; be sure to include calcium and vitamin D. DO NOT smoke and limit your caffeine as these tend to decrease the minerals in your bones. Be sure to include weight bearing exercises in your daily routine to stimulate bone growth. This can be done by walking, jogging, riding stationary bicycles and also doing resistance exercises. When exercising guard against any falls.

If you believe you may have osteoporosis, consult your physician and ask about a DEXA Scan.

Sometimes our genetic predisposition makes it hard to combat diseases, but with a few changes in our lifestyle we can attempt to help ourselves. As always, if you have any questions or comments, eMail me at [gheffelmire@dearborncounty.in.gov](mailto:gheffelmire@dearborncounty.in.gov)