

## **HEALTHY TO THE BONE**

#### **DR. SUZANNE DANNER**

Valerie wants to know how to keep her bones strong and prevent osteoporosis. As a 54-year-old post-menopausal woman, she knows that bone health is something she should start thinking about. And watching her mother's spine shrink and deteriorate over the years adds an urgent element to her concern. "I don't want to end up like that", she confides. "And I want to do something about it."

Valerie has done some homework. She knows that by having a family history of osteoporosis, she is at risk herself. She also knows the loss of estrogen after menopause contributes to the condition, and she's considering her doctor's suggestion that hormone replacement therapy might help. Still, she's not sure. She has read that calcium and exercise are important for her bones, but wonders if there is something more she could do.

In practice, I find myself asked this type of question frequently by my postmenopausal patients, and there's no doubt that bone health is an important health issue for such women. Estrogen protects our bones, and older women are simply at greater risk for osteoporosis.

Fortunately, there are a number of steps you can take to help prevent and reduce bone loss, whether you are at risk, like Valerie, or have already developed the condition. Diet and exercise can be improved and nutritional supplementation and herbal medicines can be used to slow down bone loss and possibly improve bone density.

### WHO IS AT RISK?

Osteoporosis, literally, means "porous bones." It is a skeletal disease characterized by low bone mass and deterioration of bone tissue leading to bone fragility and susceptibility to fracture. Sadly, osteoporosis is the most prevalent bone disease in Western societies. In Canada today, one in four women over the age of 50 have osteoporosis. One in eight men over 50 also have the disease.

Rarely do I have young women ask me about osteoporosis prevention. After all, osteoporosis is a disease that only old people get. Right? Wrong. Protecting your bones should start early in life, and I believe an osteoporosis prevention plan needs to be adopted as early as the teenage years. Women reach their peak bone mass by the age of 30-35, after which bone mass starts to naturally decline at about 2 percent per year. If by your mid-thirties, you have achieved 100 percent or more bone density, and you don't have a condition or genetics that cause rapid bone loss, then you'll likely be in good shape come old age.



## THE SECRET OF SOY

The good news is that osteo is a preventable disease. We can stand to learn a lot about bone health if we look to other cultures. It has long been acknowledged that women from Asian countries have lower rates of osteoporosis, heart disease, and breast cancer when compared to women in North America. They even complain of fewer menopausal symptoms. Why is this so? Researchers believe much of it has to do with their diet.

Traditional Japanese and Chinese diets tend to be high in soybeans and soy products, such as tofu, tempeh, and soy beverages. There is now evidence to show that soybeans contain important medicinal compounds called phytoestrogens. Phytoestrogens are hormone-like (non-steroidal) compounds found in over 300 plants. There are 3 main classes of phytoestrogen compounds, the most important being the phenolic class, which includes the isoflavones and lignans. Soybeans contain large amounts of isoflavone, and studies show the weak estrogenic effects of soy isoflavones help maintain bone density. Flaxseeds are a rich source of lignans, which have shown to help prevent breast cancer.

Quite simply, every woman should eat more soy products, provided there is no allergy to soy. Ideally, women should start getting soy into their diets early in life, and not just when they are menopausal. Not only is soy beneficial in preventing disease, it is also highly nutritious, low in fat, and loaded with protein.

Soy isoflavones can also be acquired in capsule or powder form. Each manufacturer will label how much isoflavone is contained per capsule. I recommend 100 mg per day for osteoporosis and breast cancer prevention, and higher doses for alleviating menopausal symptoms.

Another option is Ipriflavone, a new semi-synthetic derivative of soy isoflavone that is now available over the counter in natural health food stores or from alternative practitioners. Ipriflavone does not have the direct estrogenic effects of stimulating breast and uterine tissue, and therefore may be used by women who are at risk of hormone related cancers.

For the prevention of osteoporosis, I recommend a dose of 200 mg of Ipriflavone 3 times per day, with meals. Long-term use of Ipriflavone has been shown to be safe.



# **ALL THINGS CONSIDERED**

For women like Valerie, the good news is that there is more to do than just calcium and exercise. It appears that incorporating soy foods and/or soy isoflavone supplements into your life will have positive effects on your bone health. Keep in mind however, that true prevention of osteoporosis must start early and must become a way of life. It all starts with well-rounded prevention strategies that include dietary and lifestyle factors, exercise, and appropriate nutritional supplementation.