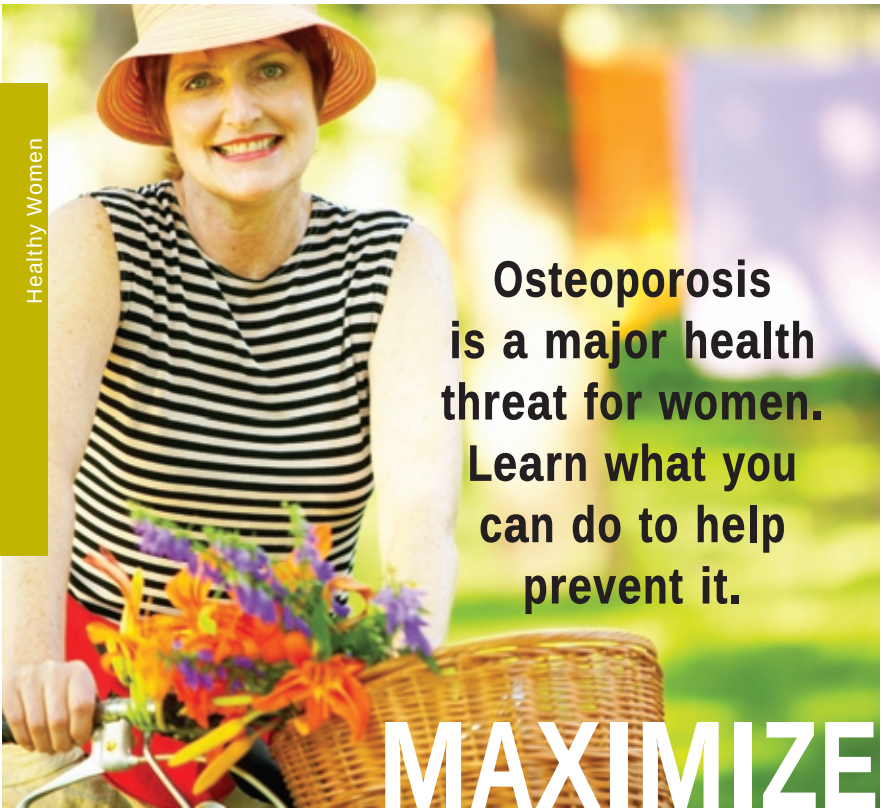


MAXIMIZE Your Golden Age

Here's a great shopping tip for the very best in bone health supplements. Clinical studies suggest the MCHC in Bone Maximizer III from MRM performs better than popular forms of calcium, such as calcium carbonate and calcium caseinate.

by Erika Eichelberger

OSTEOPOROSIS IS A MAJOR PUBLIC HEALTH THREAT, affecting 55 percent of people over age fifty, 80 percent of whom are women. In younger women, estrogen plays a critical role in building and maintaining bone. But the onset of menopause and reduced estrogen levels means an increased risk of osteoporosis. Women can lose up to 20 percent of their bone mass in the five to seven years following menopause, making them greatly susceptible to this disease.

To help prevent osteoporosis, The National Institutes of Health (NIH) recommends regular weight-bearing exercise, avoidance of smoking and excess alcohol consumption, and a balanced diet rich in calcium and vitamin D. We all know to consume plenty of dairy products to increase our calcium intake, but broccoli, dark leafy greens and calcium-fortified products like orange juice and soy products are also great sources. Vitamin D can be found in fortified milk, cheese and cereals, egg yolks, salmon, and of course, sunlight. You should also consult your health care professional about bone health and bone-density testing and consider medication when appropriate.

However, the alarming side effects of certain medically prescribed osteoporosis treatments may justifiably make you wary. For example, as part of the NIH's Women's Health Initiative, a clinical trial was begun in 1993 to study the long-term effects of estrogen plus progestin hormone therapy on postmenopausal women. But it was stopped short in 2002 after the study found that the women taking this combination had an increased risk of breast cancer, heart attacks, strokes, and blood clots compared to the placebo group. The Data Safety and Monitoring Board determined that the health risks associated with hormone replacement therapy outweighed the benefits. Various other medications commonly prescribed for osteoporosis, such as biphosphonates, selective estrogen receptor modulators and calcitonin, also carry the potential risk of serious side effects.

If you are not ready to gamble with these side effects, it's worthwhile investigating a safe and effective natural supplement such as Bone Maximizer III™ from Metabolic Response Modifiers (MRM). The Bone Maximizer III formula offers you a superior source of calcium called microcrystalline hydroxyapatite compound (MCHC) as well as a full spectrum of essential bone-building nutrients, along with whole bone proteins that contain peptides known to stimulate calcium absorption, thereby increasing bone density.

MCHC TO THE RESCUE

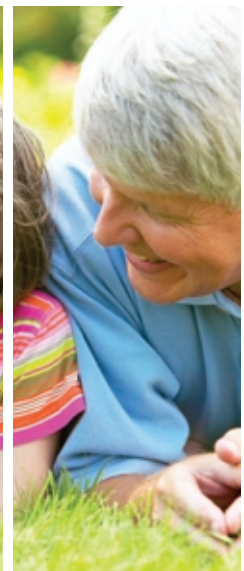
MCHC is the type of calcium that composes human bone, and numerous studies have shown that it is more effectively absorbed than other types of commercially sold calcium. A 1995 study published in *Osteoporosis International* tested the effectiveness of MCHC versus calcium carbonate in preventing further bone loss in postmenopausal women with osteoporosis. After monitoring 40 osteoporotic patients—20 treated with MCHC and 20 with calcium carbonate for 20 months—researchers determined that MCHC is more effective than calcium carbonate in slowing bone loss in osteoporotic patients. A more recent 2004 study at the University of Hull in the UK compared the effectiveness of two forms of calcium—ossein-hydroxyapatite and tricalcium phosphate—in the prevention of postmenopausal bone loss in 153 postmenopausal

osteopenic women. The study found hydroxyapatite to be superior in decreasing a number of contributing factors to bone loss.

Although most of the attention to dietary deficiencies for osteoporosis has focused almost exclusively on calcium (and vitamin D), there has recently been considerable research demonstrating the ability of a variety of other nutrients to reduce or even prevent bone loss, especially in post-menopausal women. Bone Maximizer III offers a full array of these nutrients, including vitamins C, D and K, minerals magnesium, phosphorus, zinc and boron, as well as methyl sulfonylmethane (MSM) and glucosamine for further connective tissue support.

ESSENTIAL VITAMINS

Vitamin D is required by the body to process calcium; it allows calcium to leave the intestine and enter the bloodstream. Vitamin C is necessary for the formation of collagen, which comprises the majority of the bone matrix. And don't forget vitamin K, the unsung hero. Over the past decade it has become evident that vitamin K is not only essential in attenuating arterial calcification, but is also crucial in bone mineralization. Vitamin K functions as a cofactor for the enzyme that catalyzes the carboxylation of osteocalcin, a protein necessary for normal bone metabolism. Studies have shown that the amount of vitamin K needed for optimal carboxylation of osteocalcin is significantly higher than what is provided by diet alone. This is why vitamin K is increasingly being recognized as an important nutritional supplement for those who are susceptible to osteoporosis. Two recent studies in Japan found that vitamin K's properties are so effective that it is essentially equivalent to the medically prescribed biphosphonate etidronate in reducing osteoporotic vertebral fractures and in improving bone mineral density. In fact, vitamin K is used as an anti-osteoporosis drug in Japan.



Vitamin K2, derived from the Japanese fermented food natto, is more potent and has a better absorption rate than traditional forms of vitamin K, making it even more effective at maintaining healthy bones. This makes Bone Maximizer III, which contains vitamin K2, a particularly great choice for a bone health formula.

MINERAL MATRIX

It is also important not to overlook the importance of trace elements like magnesium, phosphorus, zinc and boron. Many studies have demonstrated the key role that these minerals play in the normal growth and development of skeletons. As explained above, our bodies need phosphorous and magnesium to be deposited with calcium alongside the collagen fibers to harden and strengthen bone. Zinc is needed to regulate calcitonin, a hormone involved in calcium regulation and bone metabolism. And studies involving the ultratrace mineral boron have also demonstrated its ability to improve bone mineral density in postmenopausal women.

CONNECTING THE BONES

Bone Maximizer III's unique formula also contains MSM and glucosamine for additional joint, connective tissue, and trabecular bone support. MSM, or methyl sulfonylmethane, is a natural sulfur compound found in all living things. An MSM supplement ensures that the body receives the sulfur it needs to add to the strength of connective tissue cross-linkages, resulting in healthy connective tissue and joint function; it also boasts pain-reducing and anti-inflammatory properties.

Glucosamine sulfate, a building block of cartilage, aids in the suppleness and integrity of joint cartilage. By stimulating the production of new cartilage, studies have shown that glucosamine appears to slow the progression of osteoarthritis of the knee and relieves symptoms, such as pain and loss of function, in a majority of patients.

Bone Maximizer III is truly a comprehensive and improved formula that addresses the broad range of nutritional deficiencies women are likely to face as they age, all with the convenience of only three capsules per day. Even the healthiest of aging women can benefit from the bone and joint support it provides. Allow Bone Maximizer III to worry about osteoporosis; you have a life to celebrate! ■

References available at www.freedompressonline.com.

Bone Mechanics

It is important to know how bone is formed in order to understand how a natural supplement like Bone Maximizer III can help your body. Estrogen regulates bone formation by acting upon the estrogen receptors of osteoblasts (bone-creating cells). Osteoblasts produce and deposit the collagenous precursors of bone matrix, as well as osteocalcin, the non-collagenous protein of bone matrix. Osteoblasts also regulate the mineralization of bone in which mineral crystals of hydroxyapatite calcium, phosphorus and other minerals are deposited alongside the bone collagen to harden the bone. Throughout life bone undergoes dynamic remodeling by a continuing process of bone resorption by osteoclasts and reformation by osteoblasts. In advanced age, for a variety of reasons including reduced estrogen levels, bone absorption exceeds formation, leading to osteoporosis.

RESOURCES

To learn more about Bone Maximizer III and check out their full line of products, visit www.mrm-usa.com or call 800-948-6296.