Myth #1: Osteoporosis begins at menopause.

This is one of the biggest misconceptions about osteoporosis. Bone loss often accelerates during menopause, but researchers have found that peak bone mass obtained during childhood and adolescence is one of the major determinants for the risk of developing osteoporosis as an adult. Except in rare situations (immobilization, certain medications), osteoporosis doesn’t develop in a matter of weeks or months but over many years. Although it’s never too late to treat osteoporosis, it makes sense to start prevention as young as possible.

Myth #2: Osteoporosis is a woman’s disease.

Osteoporosis is not gender-specific. Although more common in women, it’s actually quite prevalent in men. One in eight men over 50 will have an osteoporosis-related fracture. While not as severe as the statistic of one in two women over 50, it’s certainly a major health problem. Men should follow the same preventive measures as women. This includes hormone evaluation, but with a major focus on testosterone rather than estrogen.
Myth #3: Genetics is the biggest risk factor.

Just because your mother, sister or father had osteoporosis doesn’t mean you are doomed to the same fate. Modification in diet and lifestyle, along with proper supplementation, can overcome genetic risk. Other risk factors include:
- being female
- being postmenopausal
- being Caucasian or Asian
- never pregnant to full term
- history of stress fractures
- premature menopause
- history of amenorrhea (no menstrual periods—not including when pregnant), anovulation (not ovulating regularly), menses started late in life, infrequent menses
- thin or small body frame
- medical conditions (e.g., diabetes, Cushing’s disease, anorexia nervosa, bulimia, kidney and liver disease, homocystinemia)
- medications (e.g., anticonvulsants, prednisone, herapin, methotrexate, lithium, isoniazid, furosemide, antacids, chemotherapy, too much thyroid hormone)
- diet high in caffeine, alcohol, sugar, phosphate (soda pop), sodium, animal protein
- surgeries (complete thyroid removal, surgical resection of the stomach or small intestine)
- malabsorption (inability to absorb nutrients)
- lack of sun exposure (vitamin D from sun)
- smoking
- inactivity.

Myth #4: Dairy products help prevent osteoporosis.

While cow’s milk does contain high amounts of elemental calcium (approximately 300 mg per eight-ounce/250-ml serving), it’s not well absorbed by the average individual. It’s also high in the mineral phosphorus, which is known to increase the urinary excretion of calcium. This is not to say you shouldn’t consume milk products. The key is to consume a variety of foods that provide calcium, minerals and essential fatty acids important for bone health.

Myth #5: Estrogen increases bone density.

Many women have a sense of false security regarding estrogen replacement, thinking it will actually increase bone density. But the vast majority of studies show that while estrogen replacement slows down bone loss, it does not increase bone density. It’s a well-known and feared fact that synthetic estrogen use has been shown to increase a woman’s risk of breast and uterine cancer. For women who actually need hormone replacement, I recommend the use of natural hormones that are the same as you find in your body. This may include a balance of natural estrogen with progesterone, and sometimes DHEA and/or testosterone. Saliva or blood tests by your integrative medical doctor can help establish what hormones (if any) are deficient and need replacement. Compounding pharmacies specialize in providing natural hormone prescriptions. To find a compounding pharmacy near you, contact the International Academy of Compounding Pharmacists at 1-800-927-4227 or visit iaacprx.org, or Professional Compounding Consultants, 1-800-331-2498.

Myth #6: Calcium supplementation is the key.

Yes, calcium is a critical mineral to supplement to both prevent and treat osteoporosis. I recommend 1,000 to 1,200 mg daily of an easily absorbable form such as calcium citrate. But it’s even more important to get a daily range of vitamins, minerals and other nutrients involved in bone formation, including:
- magnesium - 500 mg
- vitamin D - 400 to 800 IU (higher dosages for those living in areas where sunlight is not plentiful)
- B vitamins - as part of a multivitamin or B complex
- silica (from horsetail) - five to 20 mg
- zinc - 15 to 30 mg
- manganese - 15 to 30 mg
- vitamin C - 500 to 3,000 mg
- essential fatty acid blend - including omega-3 (2,000 to 3,000 mg) and GLA (gamma-linolenic acid) - 100 to 200 mg

### Calcium-rich foods:

<table>
<thead>
<tr>
<th>Food</th>
<th>Serving</th>
<th>Calcium (mg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>wakame (sea vegetable)</td>
<td>1/2 cup</td>
<td>1,700 mg</td>
</tr>
<tr>
<td>agar (sea vegetable)</td>
<td>1/4 cup</td>
<td>1,000 mg</td>
</tr>
<tr>
<td>nori (sea vegetable)</td>
<td>1/2 cup</td>
<td>600 mg</td>
</tr>
<tr>
<td>kombu (sea vegetable)</td>
<td>1/4 cup</td>
<td>500 mg</td>
</tr>
<tr>
<td>sardines with bones</td>
<td>1/2 cup</td>
<td>500 mg</td>
</tr>
<tr>
<td>tempeh</td>
<td>1 cup</td>
<td>340 mg</td>
</tr>
<tr>
<td>collard greens</td>
<td>1 cup</td>
<td>355 mg</td>
</tr>
<tr>
<td>cow’s milk</td>
<td>1 cup</td>
<td>300 mg</td>
</tr>
<tr>
<td>calcium-enriched rice or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>soy milk</td>
<td>1 cup</td>
<td>300 mg</td>
</tr>
<tr>
<td>almonds</td>
<td>1 cup</td>
<td>300 mg</td>
</tr>
<tr>
<td>spinach</td>
<td>1 cup</td>
<td>280 mg</td>
</tr>
<tr>
<td>yogurt</td>
<td>1 cup</td>
<td>270 mg</td>
</tr>
<tr>
<td>sesame seeds</td>
<td>1/2 cup</td>
<td>250 mg</td>
</tr>
<tr>
<td>kale</td>
<td>1 cup</td>
<td>200 mg</td>
</tr>
<tr>
<td>broccoli</td>
<td>1 cup</td>
<td>180 mg</td>
</tr>
<tr>
<td>tofu</td>
<td>1 cup</td>
<td>150 mg</td>
</tr>
<tr>
<td>walnuts</td>
<td>1/4 cup</td>
<td>70 mg</td>
</tr>
<tr>
<td>black beans</td>
<td>1 cup</td>
<td>60 mg</td>
</tr>
<tr>
<td>lentils</td>
<td>1 cup</td>
<td>50 mg</td>
</tr>
</tbody>
</table>
• vitamin K - from food sources such as green leafy vegetables, Swiss chard, kale, green beans, tomatoes, red cabbage, parsley, avocados, blueberries, lima beans and soy beans.

**Myth #7: All calcium supplements are equal.**

Research reveals a definite difference in the rate of absorption among various forms of calcium. The highest rated forms are calcium citrate or chelates. Calcium carbonate is not as easily absorbed, but it's okay to use in a blend containing other easily absorbed forms. I do not recommend using bone meal forms of calcium because they are poorly absorbed and some are contaminated with lead.

**Myth #8: Supplements cannot increase bone density.**

Ipriflavone has become popular for its role in the treatment of osteoporosis. This is a type of synthesized isoflavone similar to isoflavones found in soy. It's effective in maintaining and, in some cases, increasing bone density when combined with calcium or vitamin D.

Ipriflavone works by stimulating bone cells to form fresh bone and decreasing the activity of osteoclasts—cells that break down bone. It also acts to enhance the bone-building action of the hormone calcitonin. Ipriflavone does not have an estrogenic effect, so researchers do not feel it has the cancer risk that estrogen replacement therapy does.

Recommended dosage is 600 mg daily with food. I recommend it for women who have osteoporosis or those with a strong family history of the disease.

**Myth #9: The only way to monitor bone health is with X-rays.**

While it's true that a special type of X-ray known as the DEXA (dual energy X-ray absorptiometry) is the best test to get a baseline of your bone density, it's costly and there are radiation concerns. An excellent test that's also available in Canada through your doctor is a special urine test called a bone reabsorption assessment that measures metabolites of bone breakdown. Available for about $50, it monitors how your therapy is working and, unlike the DEXA scan, can be repeated as often as necessary.

References available on request.

Mark Stengler is a naturopathic doctor and co-author of a new book entitled *Your Menotype, Your Menopause*. Visit his Web site, thenaturalphysician.com.

For exercise tips to increase bone density, see Tanya Rouble's article on page 58.

We invite your feedback at editorial@alive.com. For more information, please search "osteo" at alive.com.

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**Keep It Simple Supplements**

Over the years that I've been lecturing and writing there is one question that women always ask. "How do I know which nutritional supplements are right for me, in what dosage, and when should they be taken?" That's why I developed FemmEssentials for women of all ages - the simple way to ensure you get the correct combination of vitamins, minerals, antioxidants, herbs, and essential fatty acids needed for great health and vitality. All your daily essential nutrients in just two packets per day. It's that simple! Which is important because, for busy women like you and me, life is complicated enough.

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Lorna Vanderhaeghe: Mother of four, grandmother of two, award-winning health journalist, and bestselling author.