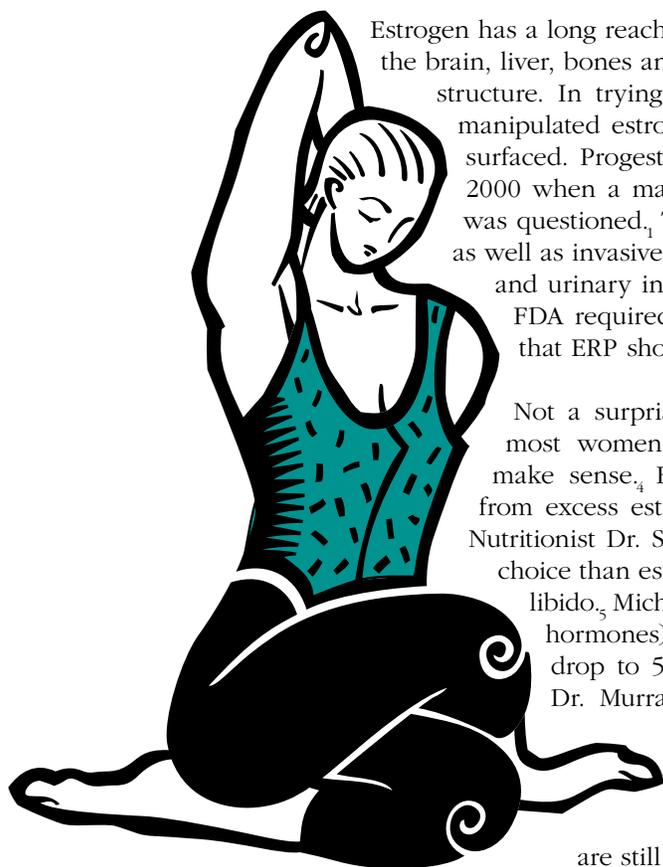


Menopause Part II

Heart, Bones & Hormones

As annoying as hot flashes and sleep disruption during menopause may be, **a greater danger comes from symptoms which slip in quietly and unaware.** Heart disease is the number one threat to women after menopause; often the first symptom is **sudden cardiac death.** A fall causes a fracture and **an x-ray reveals osteoporosis,** another silent stalker. Are hormones to blame or the answer?

The Greek meaning of hormone is to *set in motion*, a chemical substance that can influence and instruct other cells, tissues and organs. Estrogen, the noted force behind “the change” that gives us our characteristically feminine shape, has a dual nature. On the good side, estrogen reduces bone resorption to maintain bone density. It accelerates metabolism to burn fat, increases HDL cholesterol while decreasing LDL and maintains suppleness of skin and blood vessels. On the dark side, too little or too much estrogen instigates high cholesterol, heart disease, stroke, compromised thyroid function, uterine fibroids, thin bones and thinner skin.



Estrogen has a long reach—receptors (receiving mechanisms) in 300 different tissues, including the brain, liver, bones and heart. As a steroid hormone, it has access inside cells to affect DNA structure. In trying to reduce menopause-related risks, doctors (and drug companies) manipulated estrogen with replacement (ER) therapy but another risk, uterine cancer, surfaced. Progesterone (as progestin) was added to protect the uterus (ERP). Still, in 2000 when a major study involving more than 16,000 women was halted, even ERP was questioned.¹ These synthetic agents increased the risk of heart attacks and strokes, as well as invasive breast and uterine cancers. Data from a similar study added dementia and urinary incontinence to the list of “side benefits.”² Based on these findings, the FDA required warning boxes on labels for estrogen and progestin and stipulated that ERP should not be taken to decrease risk of heart attack and stroke.³

Not a surprise to TyH Advisory Panel member Will Wong, N.D., who suggests most women are estrogen dominant. Giving them additional estrogen doesn't make sense.⁴ However, progesterone positively affects bones, protects the uterus from excess estrogen and increases HDL when taken in the USP micronized form. Nutritionist Dr. Shari Lieberman advises that low dose testosterone might be a better choice than estrogen to help with bone building, decreased fat storage and a waning libido.⁵ Michael Murray, N.D., points out that a decrease in DHEA (the “mother” of hormones) affects estrogen, progesterone and testosterone balance. DHEA levels drop to 50% by age 50 (sooner for women with lupus or multiple sclerosis). Dr. Murray prescribes low dose (5-15 mg of DHEA daily) only if indicated and monitors levels before and during treatment to minimize risk of hormone-linked cancers.⁶ 7-Keto, a DHEA metabolite, may be an alternative. Having used bio-identical hormones in her practice, Tori Hudson, N.D., says they may pose less of a risk but long-term studies are still needed. She warns that close supervision, testing and adjustments are absolutely necessary.⁷ Ultimately, the goal should be to transition the change, not

reverse it unnaturally. Know your family history. Women who have had breast cancer and elect to take any estrogen increase their risk of reoccurrence.

Continued

Menopause Part II

continued

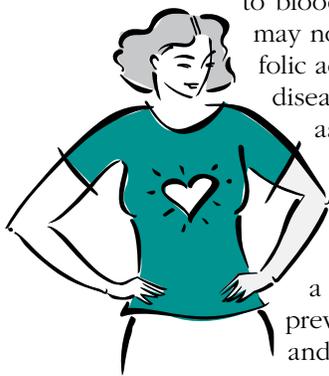
Dr. Lieberman explains that for FDA approval, drugs only need a 2-year study; the risk for breast cancer showed up at year five. While she does not advise against EPT, she does advocate diet and phytoestrogen therapy.⁵ Remember the estrogen receptors? Phyto or plant estrogens attach to them instead, which reduces estrogen binding. Phytoestrogens in soy, beans, garlic, cruciferous veggies and herbs help shrink fibroids, decrease breast CA risk, support bone density, reduce cholesterol and cardiovascular disease (see *Menopause, Part I*).⁸ Opt for organic, though, as some pesticides contain xenoestrogens which add estrogen to your diet, as does certain foods stored in plastics.

LIFESTYLE HELPERS

If heart attacks, stroke and osteoporosis are potential risks, forewarned is forearmed. The best way to deal with change is to be prepared and allow time for a smoother transition. Unless menopause is surgically induced prematurely, most women can expect “the change” to begin somewhere near age 45. Remember those maps in shopping malls with a little figure that says “You are here”? Likewise, screening blood tests and other diagnostic exams can help determine where you stand heart and bone-wise [see chart at right]. However, whether you screen early or not, you can make positive changes that influence your heart and bones.

HEART-WISE

One of the red flags in cardiovascular disease and stroke is a protein marker called homocysteine. Normally this agent is a temporary step in the amino acid chain. Unchecked, it causes cholesterol to oxidize and damage arteries and contribute to blood clots. If your level is too high, you may not have enough B vitamins (especially folic acid, B6, B12). Hypothyroidism, kidney disease and medications may affect levels as well. Cholesterol is another factor that needs control and several dietary nutrients can help. Fiber helps with elimination of both cholesterol and estrogen. Aim for about 40 grams a day. Vitamin E at 400-800 IU daily prevents free radical damage to cholesterol and dangerous oxidation, along with omega 3 heart friendly flaxseed and



fish oils. Hawthorne supports blood vessels and improves blood flow through the heart. Cholesterol helps to raise the good HDL while decreasing bad LDL and triglycerides. The FDA allows labeling on soy foods as “capable of decreasing heart disease” so make them a part of your diet. Other heart healthy moves? If you smoke, stop. Exercise at least 30 minutes three times a week (remember exercise can be done in 10 minute increments). Watch your blood pressure. Drink plenty of clean, pure water. Maintain a weight that’s healthy for you. More in-depth information on this subject can be found in *Cholesterol 101: Lessons for the Heart*,⁹

BONE-WISE

As a living tissue, bone is in a constant state of remodeling by cells that build up bone (osteoblasts) and break down bone (osteoclasts). The skeletal framework is important for ambulation but bones are also a reservoir for minerals, particular calcium for our heart and other organs.

For most of our lives, equilibrium between the two opposing types of cells preserves bone mass. During menopause when estrogen no longer protects calcium loss, bones can become too porous or osteoporotic. Osteoporosis affects 55% of those over 50 and accounts for the majority of fractures.¹⁰



Osteoporosis is a complex fix and calcium cannot do the job alone. Magnesium facilitates calcium uptake into bone and keeps the parathyroid in check from pulling too much calcium back out. Zinc enhances the biochemistry of vitamin D to stimulate osteoblasts and

Menopause: Where are You?

Tests to help determine your heart & bone status*

- ◆ Blood Pressure Screening
- ◆ Coronary Risk Blood Profile
Homocysteine & Lipid Panel
- ◆ DXA baseline in mid-20's
(at Peak Bone Mass)
- ◆ DXA at 40 & older
(Yearly Follow-up)
- ◆ Diabetes/Glucose Monitoring
- ◆ Pap & Pelvic, Mammography yearly
- ◆ RBC Magnesium Test
- ◆ Self Breast Exam Monthly
- ◆ Vitamin D3 Blood Test
- ◆ Lifestyle Modification
Abstain from smoking
Exercise regularly
Limit alcohol
Enhance Liver & GI Health

**The above is only a guideline. Follow your individual healthcare provider's instruction.*

Continued

Menopause Part II

continued

the synthesis of proteins required for bone repair. Vitamins K is needed for osteocalcin production, the protein matrix where mineralization occurs. Osteocalcin attracts calcium to bone tissue for formation, remodeling and repair. Collagen, the main bone protein cannot be made without vitamin C. Finally, boron, B6 and manganese support the calcification process and amount of calcium laid down. Fortunately, most of these nutrients are available in a good multiple in the necessary amounts. Also consider a phytoestrogen that mimics estrogen's effect on calcium, ipriflavone, taken at 600 mg daily, to boost bone. Vegans need to note that protein is important for bone integrity and obtain adequate amounts (a 150 pound person would need roughly 55-65 grams daily). A word about biphosphates (brand names Fosamax®, Activa®, Boniva®), be aware that while the drug may interfere with osteoclasts, they are not noted for building or repairing existing bone. More on bone remodeling and the role of nutrients for osteoporosis are covered extensively in a separate article.¹¹

OF NOTE

Estrogen may be a powerful factor in menopause but replacement is optional. Enhance your liver and digestion since excess estrogen can be eliminated by a healthy liver via the GI tract. Alpha lipoic acid strengthens liver function, including cholesterol management. Lower cholesterol means less estrogen. Acidophilus ES™ with Nutraflora reinforces digestive bacteria and also increases nutrient uptake. Be friendly with B vitamins that help convert estrogen in the liver, along with magnesium. Eat mini-meals more often to ease the workload on both organs. Promote progesterone synthesis with vitamins A and B5. Opt for a nutritional approach to supplement heart and bone health. If you do choose EPT, go with bio-identical hormones and monitor closely to reduce cancer risks. Although not covered here, two tests which might be helpful for those with a positive family history of cancer are the Anti-malignin Serum (AMAS) test, which is 95% accurate in predicting cancer anywhere in the body, and Tumor Marker CA-125. Both are blood tests. In part three, look for answers to hormones and the brain (no, you are not going crazy) and why it contributes to weight gain, too.

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