

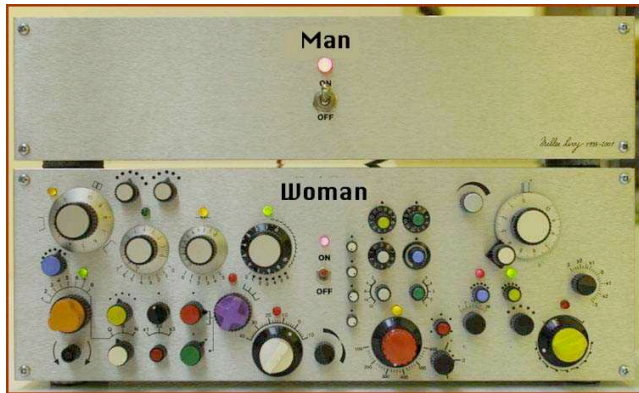
Acupuncture to Treat Menopause

June,
2011

Acupuncture to Treat Menopause

Acupuncture for the Treatment of Menopause

Men, please don't read this article. But if you do, I urge you for YOUR safety to keep your opinions to yourself and simply listen. Every month we know know that our female friends, lovers, girlfriends, wives go through a temporary metamorphosis where they...change. Women become extraordinarily moody, their ankles swell, and flannel pajamas or sweatpants become the accepted form of bedroom attire.



We are indeed talking about a women's menstrual cycle.

To put it simply, a woman's menstrual cycle involves the building and ultimate shedding of the

the endometrial lining of the uterus. This coincides with the development and release of the egg from the ovaries. All of this is dictated by a complex release of hormones that can have a wide range of physical and emotional effects on the body. The first half of the menstrual cycle is called the follicular phase where a follicle containing an egg grows in the ovaries and the endometrium (lining of the uterus) begins to thicken.

This is spurred by (relatively) increased levels of FSH (follicle stimulating hormone) from the pituitary and estradiol (estrogen) from the ovaries. After 14 days or so, the egg is released into the fallopian tubes from the follicle in the process called ovulation. This is accompanied by a jump in luteinizing hormone from the pituitary gland and a surge in progesterone from several sources including the corpus luteum. The corpus luteum is what is left of the follicle after it releases the egg. This second half of the cycle is called the luteal phase. If conception has not occurred, the shedding of the endometrium (lining of the uterus) occurs at the end of this cycle and typically lasts for 5-7 days. The

Craig Amrine L.Ac. is the owner and operator of Hidden Rhythm Acupuncture located in the heart of Tempe, Arizona. These newsletters are designed to help educate the public on various afflictions that acupuncture as a part of Traditional Chinese Medicine is known to treat. Each month, Craig will address a new health challenge that commonly affects the general public and offer a brief explanation on the disease from both the Western perspective as well as from the Traditional Chinese Medical perspective. He will also offer his own thoughts on treatment based on personal clinical observation and treatment experience.



overall levels of hormones are dictated by a complex feedback loop involving the hypothalamus (part of the brain), the pituitary gland, the adrenal glands, and the ovaries. Upsetting one of these levels can have dramatic side-effects

Yes, this is a very simplified version of the menstrual cycle. Entire books and university courses are written on this subject and the problems that can arise. So, if you want more detail, please refer to books and articles specifically written on this topic.

Acupuncture and Traditional Chinese Medicine have become extremely well established and proven in their role to increase fertility, induce labor, and increase libido, but what can acupuncture do to affect the menstrual cycle. Specifically, what can acupuncture do when the menstrual stops (menopause)? Yes, it's a natural process that virtually all women will go through and is not itself considered a health issue. The problem is that the ending of the menstrual cycle can lead to a large number of secondary symptoms. These symptoms vary greatly and can include hot flashes, night sweats, insomnia, loss of libido, depression, and osteoporosis. While hot-flashes or insomnia may appear simply inconvenient or embarrassing, other symptoms such as osteoporosis can be much more serious and lead to higher chance of bone fractures.

What is Menopause?

Menopause can simply be defined as the loss of a menstrual period. Specifically, it's the cessation of the menstrual period for at least one year. It usually happens between the ages of 49-51 for most women. This is due to the fact that women are born with a limited supply of ovarian follicles (precursor to eggs). Over time, the follicles are lost through ovulation or they simply die off. The decrease in activity within ovaries coincides with a decrease in ovarian-based estrogen. Since estrogen levels are part of the complex feedback loop mentioned earlier, the brain gets confused, resulting in the release of abnormally high levels of FSH (follicle stimulating hormone) and LH (lutening hormone). Physicians will often use these high levels of FSH and LH as chemical markers to gauge the health and longevity of a women's ovaries. In addition, levels of progesterone, testosterone, and androstenedione also dramatically change^{1,2}.

So what's the big deal? It's a process that virtually all women go through sooner or later. Unfortunately, these changes in hormone levels can result in several side-effects; some are simply inconvenient while others can be more serious. Side-effects can include: Hot flashes, night sweats, heart palpitations, vaginal dryness or itching, insomnia, irritability, anxiety, depression, loss of libido, and loss of bone density (osteoporosis). The severity of symptoms can greatly vary based on life-style and hereditary factors².

Why is Menopause a Problem?

The two most common concerns are hot-flashes and osteoporosis. Hot flashes are the result of problems with the temperature regulatory centers in the hypothalamus (part of the brain). These centers control vasodilation/vasoconstriction (opening or closing of

blood vessels) and sweating. A loss of circulating estrogen is thought to cause problems with this temperature feedback loop, leading to periodic and intense flashes of heat and sweating².

Osteoporosis (bone-loss) is defined as a loss of bone-density that often accompanies menopause. A loss of estrogen is suspected to play a huge role in this process. Estrogen effectively mediates or controls the activity of specific cells designed to break down bone. These cells called *osteoclasts* are designed to break down bone to allow more calcium into the blood. They take their orders from chemical messengers called cytokines (IL-1, IL-6, and TNF). A drop in estrogen seems to cause an increase in concentration of these cytokines. With no estrogen to mediate their activity, these cytokines will increase in concentration and lead to higher concentrations of osteoclasts¹⁴.

Treatments For Menopause

The conventional treatment methods include hormone replacement therapy, antidepressants, blood pressure medication, bisphosphonates, and even anti-seizure medications such as Gabapentin. These drugs have been found to reduce hot-flashes and even prevent or reduce bone-loss. The problem with virtually all of these conventional therapies is the risk of very serious side-effects. For example, **hormone replacement therapy has been proven to be linked to higher rates of breast cancer, heart attacks, and strokes³**.

Alternative herbal therapies including phytoestrogens (substances that ACT like estrogen on estrogen receptors in the body) such as isoflavones in Soy, and herbs such as black cohosh have been proven to help reduce hot-flashes. They are not perfect, however, because they may have their own potential side-effects. For example, black cohosh can possibly cause headaches, rashes, possible weight gains, and vaginal spotting^{7,8}. Some believe it may increase chance of liver damage, but more evidence is needed to substantiate this.

The loss of bone density (osteoporosis) due to menopause has prompted it's own category of drugs called bisphosphonates (Fosamax, Boniva). These drugs are designed to slow down the rate of bone thinning and even increase bone density.

Ironically, these drugs have several very serious side-effects. **The most serious being that they stunt the formation of new osteophytes (cells designed to create new bone)**. This leads to osteonecrosis, or "rotting of bone". SEVERAL thousand lawsuits are currently pending alleging these drugs cause "Dead Jaw" syndrome where the jaw fails to heal after common dental procedures including extractions, root canals, and crowns. This can often lead to jaw infections, and severe disfigurement^{4,5}. The FDA has recently also issued a warning that these types of drugs increase the chance of femoral fractures (broken leg)⁵. Despite the increasing evidence against this drug, it continues to be marketed very heavily and is still prescribed by doctors. Other side-effects have been reported including stomach problems, rashes, difficulty breathing,

back pain, muscle pain, joint pains, digestive problems, headaches, upper respiratory infections, bronchitis, urinary tract infections, and high cholesterol⁶. So, if you are thinking of or are already taking these drugs to fight osteoporosis, STOP!

So What are your options?

In general, the more natural herbal or botanical alternatives to hormones have much less severe side-effects than conventional drug therapies, but as described above, side-effects do indeed exist. If women were seeking an herbal solution, I'd recommend either a Chinese herbalist or a Naturopathic Doctor.

It's also well documented that exercise and weight training can reverse bone-loss due to osteoporosis¹⁷.

Menopause from a Traditional Chinese Medical Perspective

Before we look at how Traditional Chinese Medicine (TCM) and acupuncture can treat menopause symptoms, let's discuss how menopause is viewed in TCM. Keep in mind this is a very basic description in TCM terms and is not designed to be a full lecture on TCM theory. Suffice it to say that TCM considers menopause the result of a decline in the vital substance known as "Jing" (Essence). Stored in the kidneys, Essence is responsible for growth, development, maturity, and our overall constitutional vitality. It is also considered a precursor to all the other vital substances (Qi, Blood, Shen, etc.). We are born with a limited supply that cannot be recovered once it is gone. However, it can be "fortified" and nourished a bit through exercises such as Tai-Chi and Qi-Gong. It is the underlying foundation for hormone production, bone growth, and reproductive health. According to the classic TCM literature, the growth, maturation, and decline of Jing takes place in 7 year cycles for women (and 8 year cycles for men). At the 7th cycle (age 49), the Jing declines and women's menstrual cycle stops¹.

At the heart of TCM lies the very basic concept that good mental and physical health relies on the balance of Yin and Yang within the body. Yin is considered the substantial; the "stuff" that circulates within the body and has a cooling nature. Yang is considered the function or energy used to circulate the "stuff" and has a warming nature. At menopause the Yin/Yang balance is dramatically upset due to a corresponding decline in Kidney Yin (estrogen). Without the cooling nature of Yin, the warm nature of Yang will dominate, giving rise to warmth as seen in hot-flashes.

As we mentioned earlier, Jing/Essence dictates bone growth. According to TCM, the Kidneys also play a role in bone growth and development. A weakening of the Kidneys and decline in Jing that inevitably come with aging will eventually lead to problems with bone growth and repair, eventually leading to bone-thinning. In Western terms, this manifests as osteoporosis.

Kidneys control bone growth? On the surface, anyone with at least a rudimentary understanding of anatomy could say that TCM was way off in this regard. If we begin to

think about it, however, we realize they were a bit closer to the truth. We know that part of the calcium adsorption/excretion process takes place in the Kidneys. We also know that the adrenal glands sit on top of the kidneys and play a huge role in hormone production responsible for all stages of growth and development. Historically speaking, TCM viewed the adrenal glands as part of the kidneys. It's fascinating that over 2000 years ago, Chinese physicians already knew that this kidney/adrenal region was strongly connected to growth/development/sexual development and overall vitality.

So What can Acupuncture Really Do?

Previous articles I've written cited several studies describing how acupuncture can have profound effects on hormones, neurotransmitters, and cytokines in emotional, immune, and inflammatory processes (see "published articles" page on my website). We now know that this influence also affects those hormones and cytokines responsible for women's health and menopause.

Acupuncture and Hot Flashes

Several studies have shown that acupuncture can significantly lower hot-flash symptoms. A recent study specifically measured both hormone levels and menopause symptoms as described in the MRS (Menopause Rating Scale) before and after several weeks of acupuncture. The results were compared to a "Sham" group that received acupuncture in non-related body points. The results suggested that hot-flashes were significantly lower in the group treated at "Real" acupuncture points. Interestingly, LH (luteinizing hormone) levels were lower while estrogen levels were markedly higher after acupuncture in the "Real" acupuncture group ¹⁰.

Another study compared acupuncture versus Venlafaxine (Effexor) for treatment of hot-flashes (vaso-motor symptoms) and depressive and quality-of-life symptoms of menopausal women. This study was interesting because it was conducted on women who were survivors of breast cancer. It is commonly understood that women who've already had breast cancer are especially vulnerable to hormone-replacement therapy because it can increase the chance of cancer returning. As a result, the common solution is to prescribe them Venlafaxine (Effexor). Effexor has been proven to lower menopause based hot-flashes. It is a common anti-depressant, however, with a large list of negative side-effects common to all selective serotonin-reuptake-inhibitors (SSRI's).

The study clearly demonstrated that acupuncture was AT LEAST as effective in reducing hot-flashes as Effexor in these patients with breast cancer. The group receiving acupuncture also noted marked improvements in anxiety, depression, and even an increased sex-drive as compared to the patients taking Effexor ⁹. In a follow-up analysis one full year **after** the completion of treatments, hot-flash frequency was still significantly lower in the acupuncture group compared to the Effexor group. In addition, none of the patients in the acupuncture group experienced several of the negative side-

effects reported in the Effexor group including dry-mouth, decreased appetite, nausea, and constipation.

Acupuncture and Osteoporosis

Acupuncture reduces hot-flashes. Patients swear by it. Studies confirm it. But what about more serious consequences of menopause such as osteoporosis? While hot-flashes can be inconvenient, loss of bone density leading to fractures is much more serious. Can acupuncture really stop bone loss or possibly increase bone density? The answer is YES! Several studies have been performed on both animals and humans measuring bone density before and after several acupuncture treatments. The results have uniformly demonstrated that acupuncture increases bone density on post-menopausal patients^{11,12,13, 15, 16}.

So how does it do this? Earlier in this paper we briefly describe how a chemical messenger called Interleukin-6 (IL-6) has a relationship with cells designed specifically to break down bone to allow calcium to re-enter the blood stream¹⁴. Acupuncture has already been proven to have a strong effect on IL-6 based on several studies where it lowers IL-6 levels in inflammatory-based conditions¹⁹. Specifically, acupuncture has been shown to lower IL-6 levels. It now also appears that this influence over IL-6 levels extends to the connection of IL-6 and osteoclasts. One particular study looked at this specific relationship by measuring both the levels of IL-6 and myelogenic osteoclasts (cells that break down bone). This particular study showed a significant decrease in the amount of IL-6 and osteoclasts in patients treated with acupuncture compared to a control group¹³.

Other Natural Solutions ?

Based on these studies, acupuncture is proven to have a strong effect in reducing menopause symptoms including hot-flashes and osteoporosis. Is there anything else you can do? As mentioned earlier in this article, there are herbal remedies such as black cohosh that are shown to reduce hot-flashes^{7,8}. Although they are considered “natural”, they are not completely harmless and I would highly recommend the guidance of a Naturopathic Doctor to discuss both the dose and any possible side-effects of herbal remedies.

To help fight osteoporosis, calcium and vitamin supplements are usually recommended. Up to 1200 to 1500 mg is recommended daily for menopausal women. Dairy and dark green vegetables are good sources of calcium. Supplements of Calcium and vitamin D are also good sources. While calcium carbonate is the most common and cheapest, it is the least easily adsorbed. I recommend calcium citrate or calcium malate. While being slightly more expensive, they are more easily adsorbed¹⁸.

Probably one of the absolute least expensive way to fight and even reverse bone-loss is through weight training. Various studies have proven that regular strength-training in post menopausal women for at least 1 year can increase bone mass from 1 to 9

percent ^{7,17}. Yes, this regiment does take work, but there are zero side-effects and it's cheap!

Summary

Women who are going or will be going through menopause no longer have to suffer, or anticipate this change with dread. Along with several natural herbal and exercise-based alternatives, acupuncture is now proven to reduce and even eliminate menopausal symptoms. It is a powerful and elegant solution with virtually no negative side-effects.

1 Maryanne Travaglione, **Menopausal Hot Flashes: A Case Report**, *Oriental Medicine-A Publication of Pacific College of Oriental Medicine*, Spring 2011

2 <http://en.wikipedia.org/wiki/Menopause>

3 <http://www.cancer.org/cancer/cancercauses/othercarcinogens/medicaltreatments/menopausal-hormone-replacement-therapy-and-cancer-risk>

4 <http://www.webmd.com/drugs/drug-95102-Boniva+IV.aspx>

5 <http://www.fda-reports.com/fosamax/class-action-boniva.html>

6 <http://www.rxlist.com/boniva-drug.htm>

7 <http://www.webmd.com/menopause/guide/8-natural-ways-to-ease-menopause-symptoms>

8 <http://www.webmd.com/vitamins-supplements/ingredientmono-857-black%20cohosh.aspx?activeIngredientId=857&activeIngredientName=black%20cohosh>

9 Eleanor M. Walker, Alba I. Rodriguez, Beth Kohn, Ronald M. Ball, Jan Pegg, Jeffrey R. Pocock, Ramon Nunez, Ed Peterson, Susan Jakary and Robert A. Levine, **Acupuncture Versus Venlafaxine for the Management of Vasomotor Symptoms in Patients With Hormone Receptor–Positive Breast Cancer: A Randomized Controlled Trial**: JCO (Journal of Critical Oncology) February 1, 2010 vol. 28 no. 4 634-640

10 Didem Sunay, Muruvvet Ozdiken, Huseyin Arslan, Ali Seven, Yalcin Aral, **The Effect of Acupuncture on Postmenopausal Symptoms and Reproductive Hormones: A Sham Controlled Clinical Trial**: Acupunct Med (Acupuncture in Medicine) 2011;29:27-31 doi:10.1136/aim.2010.003285

11 Zhao LH, Nong ZN, Zhong X, Pang Y, Liang JS, Li XD, Ye FW, **Effects of warm needle moxibustion on bone mass density and biochemical indexes of bone metabolism in patients of postmenopausal osteoporosis:** Zhongguo Zhen Jiu. 2008 Dec;28(12):897-900, Department of Acupuncture, The First Affiliated Hospital of Guangxi University of TCM, Nanning 530023, China. zhaolh@21cn.com

12 Ou-yang, Gang et al, **The Influence of Acupuncture on Postmenopausal Female Bone Density,** Zhong Yi Za Zhi (Journal of Chinese Medicine), #2, 2001, p. 88

13 Liu X, Shen L, Wu M, Wu B, Gao L, Hu W, Zhang A, **Effects of acupuncture on myelogenic osteoclastogenesis and IL-6 mRNA expression,** J Tradit Chin Med. 2004 Jun;24 (2):144-8.

14 Roberto Pacifici, **Editorial: Cytokines, Estrogen, and Postmenopausal Osteoporosis—The Second Decade,** Endocrinology. June 1, 1998 vol. 139 no. 6 2659-266

15 Ma J, Yun-guang H, Zhang DH. **Effects of acupuncture on bone metabolism and serum estradiol level in ovariectomy-induced osteoporosis rats,** Zhen Ci Yan Jiu. 2008 Aug;33(4):235-9: College of Acu-moxibustion & Massage, Chengdu University of Chinese Medicine, Chengdu 610075, China. doctor_majie@126.com

16 Wei YF, Liu YL, Zhang SH, Wang ZO, Liu Y, Wang HC, Yao JF, Li F, Wang CH **Effect of electroacupuncture on plasma estrin and bone mineral density in ovariectomized rats:** Zhen Ci Yan Jiu. 2007 Feb;32(1):38-41: Xijing Hospital, Fourth Military Medical University, Xi'an 710032, China. weiyufang80101@163.com

17 Dani Veracity, **Bone density sharply enhanced by weight training, even in the elderly,** August 06, 2005, <http://www.naturalnews.com/010528.html>

18 <http://www.med.umich.edu/1libr/guides/calcium.htm>

19 Yun-Kyoung Yim¹, Hyun Lee², Kwon-Eui Hong², Young-Il Kim², Byung-Ryul Lee², Chang-Gue Son³ and Jung-Eun Kim¹, **Electro-acupuncture at acupoint ST36 reduces inflammation and regulates immune activity in Collagen-Induced Arthritic Mice,** ¹Department of Meridian and Acupoint, ²Department of Acupuncture and Moxibustion and ³East-West Cancer Center of Dunsan Hospital, College of Oriental Medicine, Daejeon university, South Korea, Advance Access Publication 18 August 2006