

Nature's Field

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Dong Quai *Angelica sinensis*

By Steven Horne and Paula Perretty

Dong quai (*Angelica sinensis*) is a member of the parsley family and closely related to the Western herb, angelica (*A. archangelica*). Both dong quai and angelica have a very feminine energy and have long been used to help women find balance in their health and emotions. In fact, dong quai means, "state of return" in Chinese, referring to the use of the herb to help women return to their natural physical and emotional state. It counteracts the accumulation of toxins and emotions in the liver system.

In Chinese medicine, dong quai is often considered the female "ginseng." However, just as ginseng is not an herb for men only, dong quai is not an herb for women only.

In Chinese medicine dong quai is primarily used as a blood tonic. It helps build (or nourish) the blood and improves circulation. Dong Quai contains iron and is also reported to contain B12, a vitamin needed for the assimilation of iron. Since women lose blood each month through their menstrual cycle, dong quai is used in Chinese medicine to rebuild this lost blood. It is typically combined with peony and other herbs for this purpose. Both Monthly Maintenance and Chinese Blood Build contain dong quai and other blood building herbs and are helpful formulas for anemia, PMS and menstrual pain and cramping.

Dong quai also contains coumarins. These compounds dilate blood vessels and improve blood flow. They also help relieve muscle cramps and inflammation. Women who experience pain associated with their periods may have muscle cramps or blood stagnation, or both. Muscle cramps tend to produce sharp pains, and respond favorably to antispasmodic herbs like lobelia or wild yam. A dull, congested, painful feeling is due to blood stagnation and responds better to blood moving herbs like ginger and dong quai.

Like ginger, and its cousin angelica, dong quai has beneficial effects on digestion. It stimulates digestive secretions and can be helpful for gas and bloating. It also has a mild laxative effect. This is why it is included in Chinese Anti-Gas Formula and LBS II, a laxative blend.

There is conflicting information about dong quai containing phytoestrogens. Some sources say it does, others say none have been discovered. Dong quai does appear to help balance estrogen levels. Some of the female health problems dong quai

has been used for relieving hot flashes and other symptoms of menopause, post partum weakness, irregular menstruation, uterine fibroids, fibrocystic breast disease and PMS. For these conditions, dong quai is almost always used in conjunction with other herbs. Dong quai is found in Female Comfort and FCS II (general female tonics), 5-W (for the last five weeks of pregnancy), Flash Ease (for hot flashes and menopausal symptoms), Breast Enhance (for aiding breast development) and Monthly Maintenance (for PMS).

In addition to the female health problems mentioned above, dong quai has also been used for chronic sinus congestion, allergies, high blood pressure, rheumatoid arthritis and headaches. So, it isn't just a "female" herb.

Dong quai is found in many of NSP's Chinese herbal formulas under another name, dang gui. It is in Blood Build (a great formula for women who are weak or anemic due to heavy menstrual bleeding), Liver Balance (for liver congestion), IF-C (for inflammation), Lung Support (for lung weakness), Mood Elevator (for depression and sagging energy), Nervous Fatigue Formula (for "burn-out" from stress), Spleen Activator (for weak digestion) and Trigger Immune (for general weakness). One can readily see that dong quai has benefits way beyond just being a "female" herb.

Although dong quai is a very safe herb, it is not recommended for use during pregnancy (except during the last five weeks) and should not be taken during periods by women with heavy menstrual bleeding. It should be used with caution by people taking blood thinners or with clotting disorders. These cautions don't necessarily apply to formulas containing dong quai as the amounts are usually small enough to not be of concern.

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Estrogen Pollution

Protecting Yourself from the Health Hazards of Xenoestrogens

by Steven H. Horne, RH (AHG)

Estrogens are great hormones. After all, they are the hormones that make women feminine, and as a male, I happen to be quite attracted to femininity. But, there are some estrogenic compounds in the environment that aren't so great. They are called xenoestrogens and they are causing serious health problems in both men and women.

Before I can discuss the health risk of xenoestrogens, it's probably a good idea to provide a little background information about estrogens in general. I use estrogen in the plural, because there really is no single compound called "estrogen." The human body makes three different estrogen hormones—estrone, estrone and estriol.

Plants also produce estrogen-like compounds called phytoestrogens. These compounds are not chemically identical to the estrogens produced by the body, but they still attach to estrogen receptor sites and influence reproductive health.

And finally there are xenoestrogens, the topic of this article. Xenoestrogens are environmental pollutants that have estrogen-like activity. These compounds are a primary cause of reproductive health problems in both women and men because they attach to and over-stimulate estrogen receptor sites. This causes changes in estrogen-sensitive tissues like the breasts, uterus and prostate. Xenoestrogens stimulate abnormal changes in these tissues, causing problems like cysts in the breasts, uterine fibroids, prostate enlargement and cancer.

Pesticides and Miscarriage

My introduction to the problem of xenoestrogens came when my last wife almost had a miscarriage after being exposed to pesticides. We were living in a rented home and the landlord sprayed the fruit trees in the yard. He asked my wife to come out so he could show her the damage that borers had been causing to the trunks of the trees. This exposed her to the fumes from the just-sprayed trees.

That night she started cramping and bleeding. She took lots of capsicum and bayberry to control the bleeding, vitamin E and false unicorn to inhibit contractions, and we both prayed. Fortunately, the bleeding stopped the next day.

When we relayed the incident to our midwife, she told us she was impressed because every mother she had ever known that had been exposed to that particular pesticide had miscarried. At the time, I didn't know that this particular pesticide was an endocrine disrupter, an estrogen mimic, but we soon learned that it is very common for women to miscarry after this pesticide has been sprayed in their neighborhood.

So, if these poisons can have that dramatic of an effect on a woman's pregnancy, imagine what regular low doses of them are doing to the reproductive systems of both men and women. One can readily see why reproductive health problems are on the increase worldwide.

Other Sources of Xenoestrogens

Pesticides, however, are only one source of estrogen pollution in our modern world. Another is commercial dairy, meat and eggs. There are two reasons for this. One is that dairy and egg farmers often feed estrogenic chemicals to milk cows and chickens because it increases production of milk and eggs. This alone makes commercial dairy, eggs and meat major sources of xenoestrogens.

However, there is another reason animal foods are major sources of xenoestrogens. Pesticides tend to be fat soluble, so they accumulate in the fat of animals. When an animal is eaten by another animal pesticides concentrate in that animal's fat, too. So, the higher up the food chain you go, the more pesticides tend to accumulate in fat. This is why pesticides began to damage the reproduction in birds of prey. So eating the fat from commercial dairy foods and meat gives you a double dose of estrogen pollution.

Plastics are another source of xenoestrogens, particularly soft plastics. So, if you drink whole milk from commercial dairies in soft plastic jugs, you get a triple dose of estrogen pollution. Oh, and think about all that bottled water we're drinking. If those plastic containers get hot, they leach chemicals, like xenoestrogens, into the water. It's bad to put hot food into plastic containers for the same reason or to microwave food in plastic containers. (Of course, it's a bad idea to microwave food, anyway.)

You can greatly enhance your reproductive health by purchasing organically grown food wherever possible (or a least avoiding foods from animals that have been fed hormones and washing produce to remove sprays). Avoid using pesticides in your home or on your property, too. Finally, wherever possible, use glass instead of plastic containers.

Detoxification from Xenoestrogens

Obviously, one can't completely avoid chemicals like xenoestrogens in one's life, so it's also important to do some detoxification to help the body get rid of the xenoestrogens (and other chemicals) it is exposed to. The liver breaks down all excess hormones for elimination, so supporting the liver is very helpful. A good formula to use for general detoxification, including helping the liver get rid of xenoestrogens, is All Cell Detox. Another option is Enviro-Detox.

Cruciferous vegetables contain compounds that help the enzyme pathways in the liver that break down excess estrogens. Eating broccoli, cauliflower, cabbage and other vegetables from the mustard family is a great way to support your liver's detoxification ability. One of the compounds in these vegetables is Indole 3 Carbinol, which is available as a supplement. Indole 3 Carbinol is very helpful for getting rid of excess estrogen and can be helpful for any condition involving excess estrogen stimulation, including breast and reproductive cancers, uterine fibroids and fibrocystic breasts.

Foods rich in phytoestrogens can also help protect the body from estrogen pollution. Phytoestrogens tend to be very weak in their effects, but they tie-up estrogen receptor sites so the stronger xenoestrogens can't attach to them. Soy products are widely promoted for their phytoestrogenic effects, but too much soy isn't good for you, so don't over do it with the soy products. Instead, consume a wide variety of foods rich in phytoestrogens, such as beans and peas, dark green leafy vegetables and whole grains.

The lignans in flax seed are also phytoestrogenic compounds. So, flax seeds and flax seed oil that contains lignans are also sources of beneficial phytoestrogens. A number of herbs are also good sources of phytoestrogens, including black cohosh, licorice root and hops. Although I haven't used it in my own clinical practice, Breast Assured is essentially a phytoestrogen supplement which can be taken regularly by women who are concerned about reducing exposure to xenoestrogens. It will help prevent breast cancer, breast lumps, uterine fibroids and other problems caused by excessive estrogen stimulation.

Increasing progesterone levels can also be helpful, as progesterone and estrogen are antagonists that compete for the

same receptor sites. My first choice in helping to balance these hormones would be vitex or chaste tree berry, which works on the pituitary to help regulate female hormone balance. It is a slow-acting herb and works best when taken regularly for three to six months. It is found in the Wild Yam and Chaste Tree Combination.

For women who experience heavy bleeding due to excessive estrogen, there are three remedies that can help balance these hormones. One is false unicorn, which has a progesterone-like effect. It has been used to prevent miscarriage (as in the story I told at the beginning of the article) and can also be used to combat heavy bleeding and estrogen-based conditions.

Sarsaparilla can also be used. It has a more testosterone-like effect. Yes, women also make testosterone, just like men make estrogen, and increasing testosterone can also help balance out female hormones.



Menstrual-Reg is a formula I helped to design. It is for heavy bleeding and contains herbs to both balance hormones and control bleeding. Like chaste tree, it is going to work best when taken regularly for a period of several months. Adding one capsule of yarrow per two capsules of Menstrual-Reg will improve its effectiveness against heavy bleeding, especially in the case of uterine fibroids.

Progesterone creams would be my last choice in balancing out excess estrogen. I realize that many women find them helpful, but they are not correcting the diet or the internal balance of hormones. In other words, they are treating the effect without dealing with the cause. Also, you can get too much progesterone as well as too much estrogen.

You can get your hormones tested, and creams can be compounded which contain the right amounts of natural estrogen, progesterone and/or testosterone to properly balance your system. However, I'd try dietary changes and herbal supplements first and use this route only if you have serious problems that need immediate attention or have failed to find solutions through diet and herbs.

As a parting comment, as I was in the process of writing this article, I was invited to speak to a breast cancer survivor group. Because all but one of the women in the group (the one who invited me to speak) had gone the medical route in their cancer treatment, I chose to speak about the problem of xenoestrogens. It was interesting that nobody knew anything about xenoestrogens at the beginning of my lecture, but by the end of my lecture they all realized that avoiding xenoestrogens would be helpful for both preventing and treating breast cancer. People need to be educated, so please spread this information around.



Kimberly Balas' Clinician's Corner

Clinical Tips for Balancing Female Hormones

Q. *We hear a lot lately about estrogen overload and the dangers of excess estrogen. Is too much estrogen bad?*

A. It's not a simple matter of having too much estrogen because estrogen isn't one hormone. The term estrogen applies to three different hormones—estrone, estradiol and estrinol. In addition, there are estrogen-mimicking chemicals in the environment called xenoestrogens and estrogens found in food. So, it isn't that women are producing too much estrogen, it's that the natural balance of hormones is being disrupted through a variety of biological factors, including diet, lifestyle and environmental pollution.

Estrogen is not bad. You need "good" estrogens. Estrogen has 400 very important functions in the body and is needed for optimal health in men as well as women. It is the form of estrogen that you take which makes a difference in all of these functions.

Synthetic estrogens are not the same compounds as the estrogens your body makes. Synthetic estrogens, whether in the form of xenoestrogens or in the form of estrogen-like drugs, are not the same as the body's natural estrogens. They don't react properly with the estrogen receptors in the body. These synthetic estrogens are harder for the body to eliminate and can become toxic.

In proper balance, the good estrogens in the body are responsible for increasing metabolic rate, improving insulin sensitivity, supporting sexual interest, maintaining muscle development, bone density and collagen structure in the skin, and aiding mood, memory and concentration. Estrogens help create deep sleep patterns, sexual interest and fine motor skills. Proper estrogen balance also reduces the risk of cataracts, aids arterial health, decreases blood pressure, reduces risk of heart disease, decreases risk of colon cancer, helps prevent Alzheimer's disease and even decreases the formation of wrinkles.

Besides the type of estrogen, the amount of natural estrogen you have is important. Too little or too much can cause symptoms or disease. That is why it is very important to do hormone monitoring if you are experiencing any symptoms of hormonally-related disease.

The most commonly prescribed form of estrogen is derived from the urine of pregnant mares, but there are better ways to supplement estrogen when it is needed. Many plants contain estrogenic compounds that mimic the body's weaker estrogen, estrinol. Estrogens from plants, known as phytoestrogens, are more similar to human estrogen than estrogen from horses.

Phytoestrogens appear to have no cancer risk and may actually help to prevent cancer. These phytoestrogens exert low estrogenic effects, approximately 1/400th the potency of human endogenous estrogens. Herbs like black cohosh, dong quai, licorice, hops, kudzu and alfalfa all contain phytoestrogens. Black cohosh can balance estrogen if it is too low or too high. Phytoestrogens can also be found in soy, beans, whole grains and dark green leafy vegetables.

There are other ways to balance estrogen with supplements. A diet high in good fats is crucial to hormone health. Taking good fats like evening primrose oil or flax seed oil can help the adrenals produce more estrogen. Omega-3 essential fatty acids also help to balance the levels of good estrogens. In fact, good fats can increase estradiol production by 30%. Also, hormones will not be taken up properly by the cells or combusted effectively if there aren't enough good fats in the diet. Low fat diets decrease free estrogen, the estrogen that is actually available for use by the body.

A lack of fiber in the diet will have an indirect effect on estrogen levels as well. Enough fiber in the diet will inhibit the reabsorption of estrogen. This can also happen with leaky gut syndrome.

Here are some other factors to consider in balancing estrogen levels. Stress suppresses estrogen function. A high protein, low glycemic index diet will help to balance estrogen. However, it is important to use meat that is free of hormones and antibiotics. Exercise is also very important for balancing hormones.

Hot flashes can be due to fluctuating levels of estrogen rather than a true decrease in estrogen. Estrogen dominance can result from the over production of estrogen or from an imbalance in the ratio of progesterone to estrogen. The symptoms of estrogen excess may be a result of the transformation of estrogens rather than the absolute amount of estrogen in the body.

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Indole 3 Carbinol (I3C) helps with estrogen conversion. Studies have shown that I3C elevated the metabolism of estrogen by 50-75%. This substance is available by supplementation, but it is found naturally in cruciferous vegetables. However, if you overcook your veggies, it destroys the I3C. Antacids interfere with the absorption of I3C. Besides cruciferous veggies and I3C, kudzu, B6, B12 and folate are helpful in supporting proper estrogen combustion.

Hormone balance has to do with many factors. The thyroid and adrenals play a huge role in reproductive hormone health and need to be addressed with lifestyle and supplemental changes, as well. The adrenals will take over hormone production after natural or surgical menopause. The adrenals are also responsible for hormone transport. The thyroid is responsible for metabolizing hormones. Because of this, all hormone-balancing programs require thyroid and adrenal support.

Q. *How do I tell what I need to do in order to balance my hormones?*

A. Saliva hormone testing is an effective way of determining what your current hormone balance is. Most blood hormones (about 95%) are bound to specific proteins that carry them through your bloodstream and can be considered the hormone 'storage' fraction. The other 5% represents your *free* hormones - those available to move easily into your target organs and fulfill their functions. Your saliva contains these free hormones that can be easily measured to give an accurate picture of those hormones that are readily available to your tissue. The information you need to determine your hormone balance, is how much hormone is entering your tissues, so saliva testing is the best tool for measuring hormone balance.

Q. *What about progesterone creams? Are they helpful in balancing estrogen levels?*

When the ovaries produce progesterone and it enters the bloodstream, about 98% of it is tightly bound to proteins in the bloodstream, so it is not free to move into the tissues. In contrast, when hormones are delivered through the skin, a much higher percentage is bioavailable.

Hormones delivered through the skin don't accumulate in the bloodstream because they are efficiently delivered to tissues. This is why a daily dose of 15 to 30 mg of progesterone cream results in a very small increase (if at all) on a blood test, but a significant increase in a saliva test.

The natural progesterone in progesterone creams is identical to the progesterone in the human body. It is not the same as the synthetic progestins that doctors commonly prescribe. Synthetic progestins produce side effects including breast cancer, facial hair growth, depression, cardiovascular disease, liver disorders and other problems.

This natural progesterone is made from a plant source. It was originally produced from the compound, diosgenin, origi-

nally isolated from the Mexican wild yam by Professor Russell Marker in the 1940's. The Mexican wild yam was the source for the original birth-control pill. Mexican wild yam also contains dihydroepiandrosterone or DHEA, an adrenal hormone that decreases with age and in certain degenerative conditions including postmenopausal osteoporosis.

Although a balance of estrogen and progesterone is most beneficial, progesterone enhances receptor sensitivity to estrogen, so supplemental estrogen may not even be needed when progesterone is used. Loss of bone density is generally related to an age-dependent decrease in gonadal hormones. Osteoporosis at menopause may be due more to a lack of progesterone than estrogen. There is a greater decline in progesterone than in estrogen, and progesterone begins to decline earlier. While estrogen supplementation slows bone loss, progesterone creams can actually rebuild bone.

By using a transdermal cream formula, the natural progesterone is allowed to flow through the skin and go directly into the bloodstream, completely bypassing digestion. Since progesterone enhances receptor sensitivity to estrogen, women who are taking estrogen should reduce their estrogen dose in half when starting progesterone. Many will be able to eliminate or reduce estrogen further in the next several months.

Q. *Do xenoestrogens affect men?*

A. A small amount of estrogen is necessary in men to prevent bone loss and for sex drive. The fact that men have only a small amount of estrogen is also the reason hormone replacement is much safer for men. As a man ages, his testosterone declines allowing his body to accumulate fat particularly around the belly. Belly fat contains an enzyme called aromatase that converts testosterone to estrogen. The rise in estrogen and decrease in testosterone make the men feel bad.

Excess estrogen combined with DHT, the stronger form of testosterone, promotes BPH, otherwise known as a swollen prostate. Excess estrogen increases the rise of prostate cancer through the same process that occurs in a woman's breast. It increases the potential for conversion of estrogen to 16-alpha hydroxyl estrone—a carcinogen.

Xenoestrogens contribute to the death of testicular tissue in men and boys, depression caused by testosterone suppression, premature aging, infertility and obesity. The link between xenoestrogens and obesity can readily be seen by the high rates of obesity in areas where there is high exposure to xenoestrogens (farms in the Midwest and the industrial deep South). So, men should also avoid xenoestrogens and take steps to balance their hormones. We'll have more to say about this next month.

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Parting Thoughts from the Herb Guy

Women's Emotional Health

by Steven H. Horne, RH (AHG)

Many of the health problems women face aren't caused by xenoestrogens, toxins or even poor diet. They have emotional causes. Having done a lot of emotional healing work with women for the past 20 years, I can say without reservation that many women have developed reproductive disorders directly due to shame about their femininity, female reproductive functions (like periods) and sexuality.

I didn't have space to devote to this topic in this newsletter, since I wanted to focus primarily on the topic of xenoestrogens. So, I've posted some articles on my personal website about this subject. One is an update of an article I wrote several years ago entitled *Blame it on Hormones*, which discusses the research into the biological differences between men and women. Contrary to the politically correct idea that the differences between men and women are culturally induced, there is ample evidence to support the perspective that most of the psychological and emotional differences between men and women have a biological foundation and are due to hormones. Understanding this can create greater understanding and respect between the sexes.

One of these differences is that women are more feeling-oriented than men. In fact, just as more testosterone tends to make a male body larger and stronger, the more estrogen a woman has, the stronger this feeling-orientation will be. So, while men tend to be physically stronger than women, women are emotionally stronger than men. In fact, the truth is that men are extremely emotionally fragile. This may seem contradictory at first, but it is true and I'll write more about it next month.

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I'm also posting an article called *Liberating Women*. This article explains why valuing thinking and achieving over feeling and relating devalues femininity and women, since estrogen programs women to be more feeling and relationship oriented. One of the things I frequently tell students is that there are things that the heart understands that the brain doesn't. If we placed greater value on the estrogen-induced feelings and intuition that women have, we would probably be more respectful of the environment and each other.

As it is, however, I think many women still feel secretly ashamed about their femininity and that this is a major factor in the development of reproductive diseases in women. If you are interested in this aspect of health care for women, check out these articles I've posted at www.steven-horne.com.

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