



ASHEVILLE INTEGRATIVE MEDICINE

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Natural Hormone Replacement

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You may know you have a hormone related health problem. Or perhaps you suspect some of your health problems may be hormone related? Did you know that the following range of problems can be hormone-related:

- Fatigue
- Dry Hair & Skin
- Loss of Sex Drive
- Urinary Troubles
- Mood Swings
- Irritability
- Muscle Aches
- Infections
- Weight Gain
- Depression
- Menstrual Irregularities
- Headaches
- Anxiety
- Bloating
- Joint Pains
- Insomnia

Whether you have any of the above problems or have PMS, impotence, osteoporosis, menopause, perimenopause or hypothyroidism, natural hormone replacement can help balance you. The key point is that your doctor first has to be able to recognize that vague, stubborn health problems may be hormone related. Your hormone system (called the endocrine system) is intricately involved with the immune and nervous system, and any imbalances affect you at every level of your being. No hormone in the body works in isolation — they all work in harmonic interdependence with the rest of the body. One of the keys to well being is keeping your hormones in balance.

To evaluate you for hormonal imbalances, in addition to taking a detailed history and making a thorough physical exam, we may test your blood, saliva or urine. Most of us are familiar with blood tests as a way of obtaining information about one's particular health status, but saliva sampling can provide very useful information, especially for female hormones. Research has clearly established that salivary hormone levels correlate well with blood levels of hormones such as estrogen, progesterone, testosterone, DHEA and cortisol. Salivary hormone levels measure the amount of free hormone in the blood — that is, the part that is biologically active. This gives us an idea of how much hormone your tissues are truly being exposed to. This is difficult to tell from blood tests because so much of the hormone is bound to protein in the blood. Salivary testing is also desirable since it can be done in the convenience of the patients home, is less expensive than blood tests, and multiple samples can be easily taken over a period of time to really see what is happening at the hormonal level.

Once your particular hormone imbalances are understood, we can then begin to restore you to good health through individualized dietary adjustments, nutritional supplements, and natural hormone replacement prescribed for your specific needs. To obtain the intended benefits without the side effects of synthetic hormones, we use natural hormones. By natural, we actually mean "identical to natural", or bio-identical hormones. Although these plant-derived hormones are synthesized in a lab and are not extracted from humans, they are natural in the sense that they are biochemically identical to human hormones. Using nature as the template

we attempt to provide your body with what it needs, in familiar form, so it can "fill in the gaps" according to its own wisdom.

Currently in conventional medicine, what is most prescribed for women with any gynecological hormone-related problem, whether it's PMS, infertility, post-partum depression, post-hysterectomy, menstrual irregularities, or menopause, are strong synthetic hormones that only resemble your body's own. This is where the problems start. Hormones which are not identical to your own — like Premarin, Provera, and Birth Control Pills — don't fit! They don't fit into your hormone receptors like the lock and key they are supposed to, but more like a rectangle trying to fit into a square shape. It's not only that these synthetic hormones don't fit, but they also can't go down the normal metabolic pathways of detoxification and excretion as fast as bio-identical hormones. This means they linger and can accumulate in the body, making them stronger acting and with so many potential side effects.

Unfortunately, these unnatural hormones, in the form of Premarin and Provera, are the most commonly used substances in mainstream American medicine for the correction of women's hormonal imbalances. Premarin is an estrogen which is made from the urine of pregnant mares — yes, as in horses. Only 1/3 of it's dose is familiar human estrogens, whereas 2/3 are horse estrogens. These horse estrogens attach more strongly to the human estrogen hormone receptor than native hormones and may take 8 to 14 weeks to clear from the body compared to the one day clearance of native human estrogen. When post-menopausal women on Premarin began to develop uterine cancer, a synthetic form of progesterone, a progestin, was created to counterbalance the strong estrogen. Provera is medroxy-progestrone, a synthetic progestin with properties similar to progesterone but with a different molecular structure, which is many times more potent than natural progesterone. Progestins can produce very different, and often undesirable effects in the body compared to the natural progesterone. Beyond Provera's numerous side effects, it interferes with your body's own progesterone production.

You might wonder why these drugs have dominated the medical marketplace versus bio-identical hormones. It is because natural substances can not be patented, and only patented unique products allow drug companies to corner a market and make profits. In the rare cases where the drug companies have produced bio-identical hormones, such as Estrace (estradiol) and Prometrium (progesterone), they are counting on the patented delivery mode as their profit maker.

Fortunately the full range of bio-identical hormones are available through compounding pharmacists in any combination or dose required. Depending on your individual needs, a tailor-made prescription can be created for you. If a female hormonal imbalance or health problem is being addressed, your prescription may include any of the hormones found in the human ovary. These include three estrogens (estradiol, estrone, and estriol) as well as progesterone, testosterone, and DHEA.

Estradiol (E2) is the predominate natural human hormone produced prior to menopause. It is the primary biologically active hormone from puberty to menopause and is responsible for over 400 functions in the female body. It is the decline of estradiol after menopause that results in the post-menopausal changes in skin, bone, heart/blood vessels, brain and other organs.

Estrone (E1) is the predominate human estrogen found in post-menopausal women. It is made by the body fat as well as by the ovary and can be converted to and from estradiol. It seems to serve as the body's reservoir to make estradiol. Because estrone continues to be produced in the body fat after menopause it explains why heavier women seem to have a smoother

menopause than very slender women. Estrone is the estrogen most associated with breast cancer and for this reason we no longer include it in hormone formulations.

Estriol (E3) is the weakest of the human estrogens and is predominate during pregnancy. It is especially good for relieving vaginal dryness and urinary problems. It's lower potency does not make it as effective as the more potent estradiol in providing protective benefits for the bone, heart, brain, nerves, or for relieving the hot flashes, sweats and insomnia of menopause. However, at higher doses, its weaker potency seems to give it breast cancer protection, as it can block the stronger estrogens which encourage breast cell proliferation.

Progesterone predominates in a women's premenopausal years after each ovulation and during pregnancy. If you don't ovulate, and if you're not pregnant, the adrenal glands are the bodies' only other source of progesterone. Progesterone is critical for maintaining a pregnancy, for enhancing and balancing the effects of estradiol, for promoting new bone formation, for protecting against endometrial and breast cancer, and for a natural calming agent. As women ovulate less and less before menopause, they often produce less and less progesterone in proportion to estrogen. This leads to a situation of relative estrogen dominance, which can look like worsening PMS, fibrocystic breast disease, uterine fibroids, weight gain, and depression in women in their late thirties and forties.

Testosterone is usually thought of as the male hormone but it is also very important to the well-being of women at physiologic doses. It is produced in women's ovaries and adrenal glands at about 1/10 th amount males have. As women age and their ovarian and adrenal function decline testosterone supplementation in very low doses can be very important in restoring energy, enhancing sex drive, maintaining muscle mass, lifting depression, and even strengthening and building bone.

DHEA is the other male-like (androgen) hormone which women produce in their ovaries and adrenal glands. At physiologic levels it has multiple beneficial effects including: restoring energy levels; protecting against stress, depression, and even heart disease; building bone; enhancing the immune system; and helping to relieve menopausal symptoms. Since DHEA can convert to both estrogen and testosterone, it is best to only supplement when testing indicates it is low, or if you can measure your levels while on it.

These bio-identical hormones are delivered to your body by two main routes, either by mouth in a capsule form or transdermally by cream. Each way has its advantages and disadvantages. The transdermal creams are applied to parts of the body where the skin is thin and can be easily absorbed, e.g. inner arms, inner thighs, abdomen. Applying the hormones by skin takes it directly into the bloodstream, bypassing the liver and digestive tract, allowing greater immediate systemic effect. Women with gastrointestinal or liver problems may be best off using the transdermal creams. However, women who are having menstrual cycles usually can't use creams because you can't turn off the continuous subcutaneous release of the hormones. The creams build up in the subcutaneous fat layer, and even if discontinued it may take weeks or even months for the drug levels to decrease to baseline.

Taking hormones orally by capsule has the advantage over the creams in

1. the ability to stop and start oral doses of hormones as needed
2. the desired dose is better controlled
3. the oral route is much less likely to accumulate as high hormone levels in the body
4. better at controlling hot flashes

A women's decision to use natural hormone replacement will be based on many factors — every woman is different. Your medical history, your family medical history, the degree to which your symptoms are interfering with your quality of life, and your values may be most important factors. Individualized, appropriate dietary adjustments, herbal and nutritional supplementation, exercise, and stress reduction techniques may be enough support for many women to weather their hormonal imbalances. But for those other women, it is reassuring to know that there are hormones available which are identical to your own, which provide the benefits intended without the side effects of synthetic hormones, and knowledgeable practitioners to prescribe them.

SUGGESTED READING:

Natural Women, Natural Menopause, Marcus Laux, ND and Christine Conrad (New York: Harper Collins, 1997)

Screaming to Be Heard, Elizabeth Lee Vliet, MD (New York: M. Evans and Co., 1995)

Dr. Susan Love's Hormone Book, Susan Love, MD and Karen Lindsey (New York: Random House, 1997)

The Super Hormone Promise, William Regelson, MD and Carol Colman (New York: Simon & Schuster, 1996)

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