Compounded Bioidentical Hormone Replacement

Compounded bioidentical hormones are chemically processed from precursors found in yam or soy plants to have exactly the same chemical structure as hormones produced by the human body. The benefits of bioidentical hormones include fewer side effects versus synthetic derivatives, individualized therapy, and positive benefits of estrogen, testosterone, and progesterone balance. Bioidentical hormones can be compounded in various dosage forms, including creams, capsules, and lozenges.

Symptoms of hormone imbalance can include abdominal weight gain, hot flashes, night sweats, irritability, decreased sex drive, fatigue, dry skin or hair, heavy or irregular menses, difficulty sleeping, and MANY more.

**Estrogen** therapy has both benefits and risks. Some of the documented benefits of adequate estrogen levels include increased metabolism, increased insulin sensitivity, improved sleep quality, reduction of overall heart disease risk by 40-50%, decreased blood pressure, improved concentration, maintenance of good bone density, and increased energy and sexual interest. However, excess estrogen levels can cause depression, fluid retention, headaches, poor sleep, irritability, mood swings, fatigue, increased risk of auto-immune diseases, weight gain, and increased risk of breast and uterine cancer.

The human female body makes three primary estrogens: estrone, estradiol, and estriol, abbreviated E1, E2, and E3. Estrone (E1) is a very strong estrogen that has been linked to breast and uterine cancer in some women. US Compounding prefers not to give estrone, but some patients require it temporarily to achieve symptom relief. Estradiol (E2) is the estrogen that our bodies produce in the highest amount, and it is crucial for proper estrogen balance. Estradiol has also been linked to some breast cancers. Estriol (E3) is the weakest estrogen in our bodies, and is produced as a breakdown product of estrone and estradiol. It is thought to have protective effects against many of the health problems that excess levels of estrone and estradiol may cause. Symptoms of too much estrogen can include breast tenderness, headache, irritability, and hot flashes.

US Compounding advocates conservative, customized dosing to maintain proper hormone balance and promote healthy estrogen levels. Estrogen levels are improved with a diet high in grains and fiber, moderate exercise, stress reduction, certain B vitamins, omega-3 fatty acids (fish oil), and maintaining a healthy body mass index (BMI). Just as important as maintaining a healthy
estrogen level is ensuring its proper balance with other hormones in the body, including progesterone, testosterone, and cortisol.

**Progesterone** is a hormone produced by the ovaries and adrenal glands that helps to balance estrogen. Natural progesterone, which is very different from the synthetic progestins found in many non-compounded hormones, has many benefits. Progesterone improves sleep, has a natural calming effect, lowers high blood pressure, helps the body use and eliminate fats, lowers cholesterol, has anti-inflammatory properties, and is both a natural diuretic and a natural antidepressant. Too much progesterone upsets the natural progesterone/estrogen balance, and can cause hot flashes and fluid retention.

**Testosterone** is important in both males and females for proper body function. Testosterone increases sexual interest and sense of emotional well-being, increases muscle mass and strength, helps maintain memory and keep skin from sagging, helps maintain bone density, and decreases excess body fat. Some ways to naturally improve libido, without supplementing testosterone, include decreasing calorie and increasing protein intake, exercising properly, getting adequate sleep, losing weight, and reducing stress levels. Too much testosterone can cause acne, irritability, and (in extreme cases) facial hair growth and male pattern baldness in women.

**Cortisol** is a stress hormone secreted by the adrenal glands to help the body cope with day-to-day stresses. It should start highest in the morning and gradually fall throughout the day. Cortisol functions to aid in blood sugar balance, weight control, immune system responses, reaction to stress, and sleep. Elevated cortisol can cause fatigue, irritability, insomnia, decreased immunity, insulin resistance, elevated cholesterol, increased risk for osteoporosis, muscle weakness, easy bruising, and weight gain (especially around the “middle”). Low cortisol, characterized as adrenal fatigue, can cause fatigue, insomnia, decreased sexual interest, decreased immunity, allergies, unresponsive hypothyroidism (does not respond to treatment), emotional imbalances, lack of motivation, and digestive problems. Cortisol imbalances are corrected with over-the-counter supplements. For more information on cortisol, please visit [www.adrenalfatigue.org](http://www.adrenalfatigue.org).

The first step on the road to hormone balance is setting up an appointment to review your medical history and symptoms. A simple saliva test you do at home gives us a picture of your hormone levels and how your body metabolizes these hormones. Based on these results, we work with your physician to provide you with customized hormone prescriptions. Most women see symptom improvement the first month, though a full two months is sometimes required to see the maximum effect of a new regimen or a dosage change. At US Compounding, we treat the whole person, with the ultimate goal of improved overall health and well-being. For many patients, hormone balance is just the first step towards a whole new life.