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Defining 'Bio-identical', 'Customized', or 'Natural' Hormone Therapy

'Bio-identical', "customized", or "natural" hormones are those that have the same chemical structure as the hormones a woman's body produces; estrogens, progesterone, and testosterone. These bio-identical hormones are made in the laboratory beginning with extracts of soy and yam (thus the term 'natural' is used by some). The soy and yam extracts are taken through a series of chemical processes and made into estrogens (estradiol, estriol, and estrone), progesterone and testosterone, again, with the same chemical make up as those hormones found in the normally menstruating woman's body.

These bio-identical hormones are then sold to companies who supply them to both compounding pharmacies and pharmaceutical companies. In response to a practitioner's prescription for a patient, a compounding pharmacy will then 'compound', 'customize', or 'make up' BHRT – bio-identical hormone replacement therapy. Pharmaceutical companies, on the other hand, offer numerous prescription types and doses of bio-identical estradiol (the most potent and important estrogen) and one form of bio-identical progesterone pill (Prometrium) used for hormone therapy. These fall under the definition of BHRT. In most instances these pharmaceutical products can also be 'customized' to fit an individual woman's needs. Whether from a compounding pharmacy or pharmaceutical company the hormone is 'bio-identical' if it is estradiol, estriol, progesterone, or testosterone. At this time testosterone for women is only available from a compounding pharmacy.

The main estrogen lost at menopause is estradiol which affects functions throughout a woman's body from skin, to bones to heart to brain

Hormone levels and hormone testing

Saliva testing to determine if a woman has the “right amount” of hormones has not been proven accurate or reliable. Even blood testing of hormone levels has the drawback that levels vary throughout the day as well as from day to day.

During the perimenopausal years (from a woman's first symptoms until several years past her final menstrual period) estrogen levels decline and fluctuate dramatically. It is difficult, if not impossible during these years, to get an accurate reading of our estrogen levels as they can vary from one minute to the next. More important, the desired levels in postmenopausal women have not been established. In addition, an individual woman's physical comfort may not even be related to her absolute hormone levels.

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Re: progesterone levels, if we are not certain if we are ovulating (which is responsible for our progesterone), we may want to measure a progesterone level during the last half of a menstrual cycle, however, that offers little insight into what the level may be the following month, for ovulation can be sporadic, especially during later perimenopause.

In terms of testosterone, it has been shown that a woman's testosterone level drops by about 50% from ages 20 to 40. Therefore, I often find it useful to replace a small amount of testosterone when prescribing hormone therapy. I will educate a woman on what to look for in terms of a proper balance of estrogen / testosterone. At this time testosterone for women can only be gotten from a compounding pharmacy. Again, I seldom find it necessary to test for testosterone levels.