at are
-Identical Hormones?

ntical or "natural" hormones have the same chemical ure as hormones that are made by the human body. In for a replacement hormone to fully replicate the function mones which were originally naturally produced and nt in the human body, the chemical structure must match iginal exactly.

hains may be added to a natural substance to create a etic product that can be patented by a manufacturer. These ural differences may be responsible for side effects that are ienced when non-bio-identical hormones are used for cement therapy.

nary reason for the confusion encountered when reviewing es of efficacy, safety, and side effects of various forms T is that most studies have grouped all forms of estrogen r the title "estrogen replacement therapy", and the us progestins as well as progesterone under the name gesterone", and often have failed to delineate the specific of hormone that was investigated.

storing Hormonal Balance

dentical Hormone Therapy (BHT) is the replacement of ient hormones with hormones that are chemically identical ose that the body naturally produces. BHT has improved quality of life for millions of women and men who suffer n hormonal imbalance. The ideal process for achieving nonal balance includes an assessment of hormone levels complete evaluation of signs and symptoms, followed by acement of the deficient hormones which have declined to aging or illness.

ences:

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We work together with practitioners and patients to customize medications and meet specific needs.

o-Identical Hormone Therapy

r women

trogens

e a group of related hormones, each with a unique profile of activity. e often prescribed in combination to re-establish a normal physiologic alance. The use of one or more of these hormones is referred to as trogen Replacement Therapy (ERT).

identical estrogens are used

- relieve menopausal symptoms.
- r the treatment of postmenopausal problems including ginal atrophy, dryness, or infections, painful intercourse, id various conditions of the urinary tract.
- decrease the risk of osteoporosis and colorectal cancer.

ntrast to bio-identical estrogens, NON-bio-identical conjugated equine gens (CEE) are commonly prescribed. These conjugated estrogens are ed from pregnant mares' urine; however, most estrogens found in es are NOT naturally produced by humans. Published research has n that the risk of breast cancer is increased with the long term use of [1,2,3] and the risk is further increased when the synthetic progestin roxyprogesterone acetate (MPA) is added.[4,5] A large team of tists have determined that unlike synthetic progestins which increase st cancer risks, natural progesterone has the potential to slow the th of many breast cancer tumors or even shrink them.[6]

ogesterone

commonly prescribed for perimenopausal women to counteract strogen dominance."
duces the risk of endometrial cancer in women who are receiving trogen.
preferred by women who had previously taken synthetic ogestins, according to a Mayo Clinic study.[7]
ay enhance the beneficial effect of estrogen on lipid and cholesterol ofiles[8] and exercise-induced myocardial ischemia (reduced oxygen pply to the heart muscle) in postmenopausal women in contrast to ogestins, such as medroxyprogesterone acetate.[9,10,11]
is a different side effect profile than synthetic progestins such MPA.[12]

sterone and synthetic progestins have generally indistinguishable effects idometrial tissue (i.e., both prevent hyperplasia of the lining of the s, which can progress to endometrial cancer). However, in other body ms, natural progesterone has properties that are very distinct from etic progestins. Within the nervous system, the neuroprotective and yelinating effects of progesterone are promising, not only for preventing lso for reversing age-dependent changes and dysfunctions.[13]

drogens

sterone and dehydroepiandrosterone (DHEA) may be added to man's hormone therapy to alleviate recalcitrant menopausal and further protect against osteoporosis, loss of immune function, obesity, and diabetes. A decline in serum testosterone is associated with hysterectomy, and there are age-related gender-independent declines in DHEA and DHEA-sulfate. Additionally, ERT may cause relative ovarian and adrenal androgen deficiency, creating a rationale for concurrent physiologic androgen replacement.[14]

Note: Proper selection of specific hormones, doses and routes of administration can provide significant clinical advantages. Non-oral (transdermal) estrogens do not undergo first pass hepatic metabolism, have minimal effects on clotting factors, and are associated with potential advantages on the cardiovascular system and blood pressure control. In particular, the risk of developing deep vein thrombosis or pulmonary thromboembolism (blood clots) is negligible with transdermal administration when compared to oral estrogens. In addition, evidence shows that bio-identical progesterone has a favorable action on the blood vessels and on the brain, while this might not be true for some synthetic progestins. Recent trials indicate that the use of bio-identical progesterone with estrogens confers less or even no risk of breast cancer as opposed to the use of synthetic progestins. In conclusion, the choice of the transdermal route of administration of estrogens and the use of bio-identical progesterone might offer significant benefits and added safety.[15]

Hormone Therapy for men

Men frequently experience declines in testosterone levels that correlate with the hormonal changes that women experience at menopause; however, men typically have a slower and more subtle hormonal decline, and develop symptoms over a period of time. When hormones are replaced or restored back to physiologic levels considered normal for younger males, men may experience a dramatic reversal of many of these changes.[16]

In clinical trials, Testosterone Replacement Therapy (TRT) has produced

- improvement in psychological well-being and mood.[17,18]
- improvement in erectile dysfunction and libido.[17]
- increased muscle mass and strength.[19]
- preservation of bone mass.[20]
- a positive effect on the clinical course of Crohn's disease.[21]

Testosterone therapy has the potential to slow or halt the progression from metabolic syndrome to overt diabetes or cardiovascular disease via beneficial effects on insulin regulation, lipid profile and blood pressure.[22]

An extensive review of the medical literature reveals that the majority of clinical studies show that properly administered testosterone replacement therapy, in which estradiol and dihydrotestosterone (DHT) levels are also controlled, has no adverse effects on myocardial infarction risk. Testosterone replacement therapy is often accompanied by an aromatase inhibitor, such as anastrazole, to control estradiol levels; and a 5α-reductase inhibitor, such as dutasteride or finasteride, to control DHT.[23]

Natural testosterone must not be confused with synthetic derivatives or "anabolic steroids," which when used by athletes and body builders have caused disastrous effects. Hormone balancing for men may also include dehydroepiandrosterone (DHEA), chrysin, zinc, selenium, and other supplements.

Thyroid Hormone Therapy

Symptoms of hypothyroidism (low levels of thyroid hormone) include fatigue, cold and heat intolerance, hypotension, fluid retention, dry skin and/or hair, constipation, headaches, low sexual desire, infertility, irregular menstrual periods, aching muscles and joints, depression, anxiety, slowed metabolism and decreased heart rate, memory impairment, enlarged tongue, deep voice, swollen neck, PMS, weight gain, hypoglycemia, and high cholesterol and triglycerides. Yet, more than half of all people with thyroid disease are unaware of their condition.

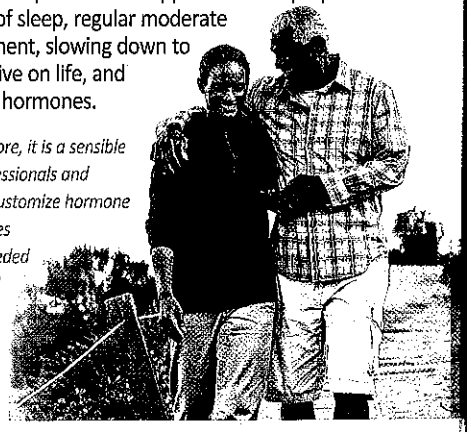
T4 (thyroxine) is an inactive form of thyroid hormone that is converted in the body to T3 (triiodothyronine), the active form. Some hypothyroid patients remain symptomatic on T4 therapy and T3 may also be required for optimal thyroid replacement therapy. However, the only commercially available form of T3 is synthetic liothyronine sodium in an immediate release formulation which is rapidly absorbed and may potentially cause serious side effects including heart palpitations.

Research indicates that to avoid adverse effects, patients and their physicians may wish to consider the use of sustained-release T3 in the treatment of hypothyroidism, particularly when the response to levothyroxine (T4) has not been complete.[24,25] Another option is using a physiologic blend of T4/T3.

Adrenal Dysfunction

The adrenal glands secrete hormones such as cortisol, estrogen, and testosterone that are essential to health and vitality. Anti-inflammatory and anti-oxidant adrenal hormones like cortisol help to minimize autoimmune disorders. After mid-life, the adrenal glands gradually become the major endogenous source of sex hormones in both men and women. Intense or prolonged physical or emotional stress commonly associated with modern lifestyles or chronic illness can lead to adrenal dysfunction (sometimes referred to as "adrenal fatigue"), which is an important contributing factor in health conditions ranging from allergies to obesity.

These hormones closely affect the utilization of carbohydrates and fats, the conversion of fats and proteins into energy, and cardiovascular and gastrointestinal function. Proper adrenal support includes proper nutrition, getting plenty of sleep, regular moderate exercise, stress management, slowing down to regain a proper perspective on life, and replacement of deficient hormones.



Every person is unique. Therefore, it is a sensible approach for health care professionals and patients to work together to customize hormone therapy. Bio-identical hormones can be compounded in the needed strength and dosage form and administered via the most appropriate route to meet each individual's needs.