



## KNOW YOUR HORMONES

### **ESTROGEN** es•troegen

Primarily a female hormone, it is secreted by the ovaries, but is also present in men. In women, estrogen protects against heart disease, stroke, osteoporosis, Alzheimer's disease, memory disorders, vaginal atrophy and urinary incontinence. It also prevents symptoms of menopause, including hot flashes, irritability, mood swings, hot flashes, and night sweats. It improves balance by improving the visual somatosensory system within the central nervous system. Estrogen deficiency also results in sagging breast tissue and skin, increased facial wrinkles, fatigue, depression, mood swings and decreased libido (sex drive). Estrogen is instrumental in orchestrating the menstrual cycle and works in harmony with progesterone, both of which are essential to normal, healthy female function. Often equine (horse) based "estrogen" taken from pregnant mare's urine is used to replace human estrogen. These equine-based products actually contain equilins and estrones, not human estradiol or estriols, and these equine products have been linked to an increased incidence of cancer and heart disease.

### **PROGESTERONE** pro•ges-terone

This is considered a female hormone but is present in both men and women. The root components of the word ("pro" means "for" and "gesterone" means "gestation") clearly point out the importance of this hormone for fetal development. It is produced in four areas of the body: the ovaries, the corpus luteum (the ruptured follicle), the adrenal glands and in pregnant women, the placenta. Progesterone is often used to treat PMS. It protects against uterine and breast cancers, osteoporosis, fibrocystic disease, and ovarian cysts. Optimal progesterone levels often help with alleviating depression, reducing anxiety, providing a sensation of calmness, and improving sleep at night. Often synthetic progestin is used to replace natural progesterone and is accompanied by significant side effects. There are numerous benefits to optimizing progesterone levels and keeping estrogen and progesterone in balance with each other.

### **TESTOSTERONE** tes-tos•terone

Produced by the adrenal glands, testes, and ovaries, it is a hormone vital to both sexes. It contributes to muscle mass, strength, endurance, decreased fat, increased exercise tolerance, enhancement of wellbeing, and sex drive. In males, testosterone protects against cardiovascular disease, hypertension, and arthritis. It leads to improved lean muscle mass, increased bone density, decreases in cholesterol, improved skin tone, improved healing capacity, and increased libido and sexual performance. It prolongs the quality of life by decreasing age-related diseases- as does estrogen in females. Testosterone is also extremely important in females for body fat reduction, sense of well-being, improving memory and mental status, libido, endurance, and energy, thus making supplementation an ideal option for both men and women.

### **PREGNENOLONE** preg•nen•one

This is another precursor hormone. It is made in the brain and functions as a memory enhancer, and is a factor in cellular repair, particularly in the brain and nerve tissue. It protects against neuronal injury and facilitates cerebral (brain) function. This hormone is important for quality of sleep, mood, and is used in the treatment of adrenal fatigue (stress syndrome)



### **DHEA de•hydro•epi•an•dro•sterone**

This is the most abundant hormone in the body and is a precursor hormone, which is a substance from which other important hormones are produced. DHEA is mainly secreted by the adrenal glands but is also produced by the skin and brain. It is an essential component in many of the body's physiological and metabolic functions including building the immune system, reversing the effects of stress, regulating hormone balance, and helping maintain levels of well-being. It promotes an anabolic or protein building state, which increases lipolysis or the breakdown of fat. It can increase energy, strength, and libido. Studies have linked deficiencies to increased cardiovascular risk, and autoimmune disorders, such as fibromyalgia. Optimal levels of DHEA can help restore sexual vitality.

### **CORTISOL cor•ti•sol**

Is an important hormone in the body, secreted by the adrenal glands and involved in the following functions and more: Proper glucose metabolism, regulation of blood pressure, insulin release for blood sugar maintenance, immune function, and proper inflammatory response. Normally, this "get-up-and-go" hormone is at its highest levels in the morning and at its lowest at night. Cortisol has been termed "the stress hormone" because it is secreted in higher levels during the body's "fight or flight" response to stress and is responsible for several stress-related changes in the body. Higher and more prolonged levels of Cortisol in the bloodstream (like those associated with chronic stress) have been shown to have negative effects on the body, such as: Impaired cognitive (mental) performance, suppressed thyroid function (weight gain), blood sugar imbalances such as hyper (high) or hypo (low) glycemia (blood sugar), decreased bone density, decline in muscle mass, higher blood pressure, lowered immunity and inflammatory responses in the body, slowed wound healing, and increased abdominal fat, which is associated with a greater amount of health problems that fat deposited in other areas of the body.

### **MELATONIN mel•a•ton•in**

This is produced by the pineal gland (in the brain). It is a neurotransmitter hormone that regulates circadian rhythm (your patterns of sleep). Research has shown that the cells of the body rejuvenate and repair during the deeper stages of sleep. Deeper stages of stage IV sleep help produce natural "CD4" killer cells-which are important to a strong immune function and growth hormone production. Deep sleep also helps energize the body and improve mood. Melatonin has powerful antioxidant effects, which also help with disease prevention. Melatonin deficiency is linked to poor sleep, jetlag, irritability, hypersensitivity and premature aging. Studies also link it to inhibiting breast cancer cell proliferation.

### **THYROID HORMONE thy•roid**

Produced by the thyroid gland this metabolic hormone regulates temperature, metabolism, and cerebral function. It contributes to energy levels and the body's ability to maintain a constant temperature. It increases fat breakdown, improves head hair growth, reduces cholesterol levels and body weight. Thyroid hormone is probably the safest and most beneficial cholesterol reducing agent, yet it is infrequently used for this purpose. It is also vital in the prevention of cognitive (mental) impairment.