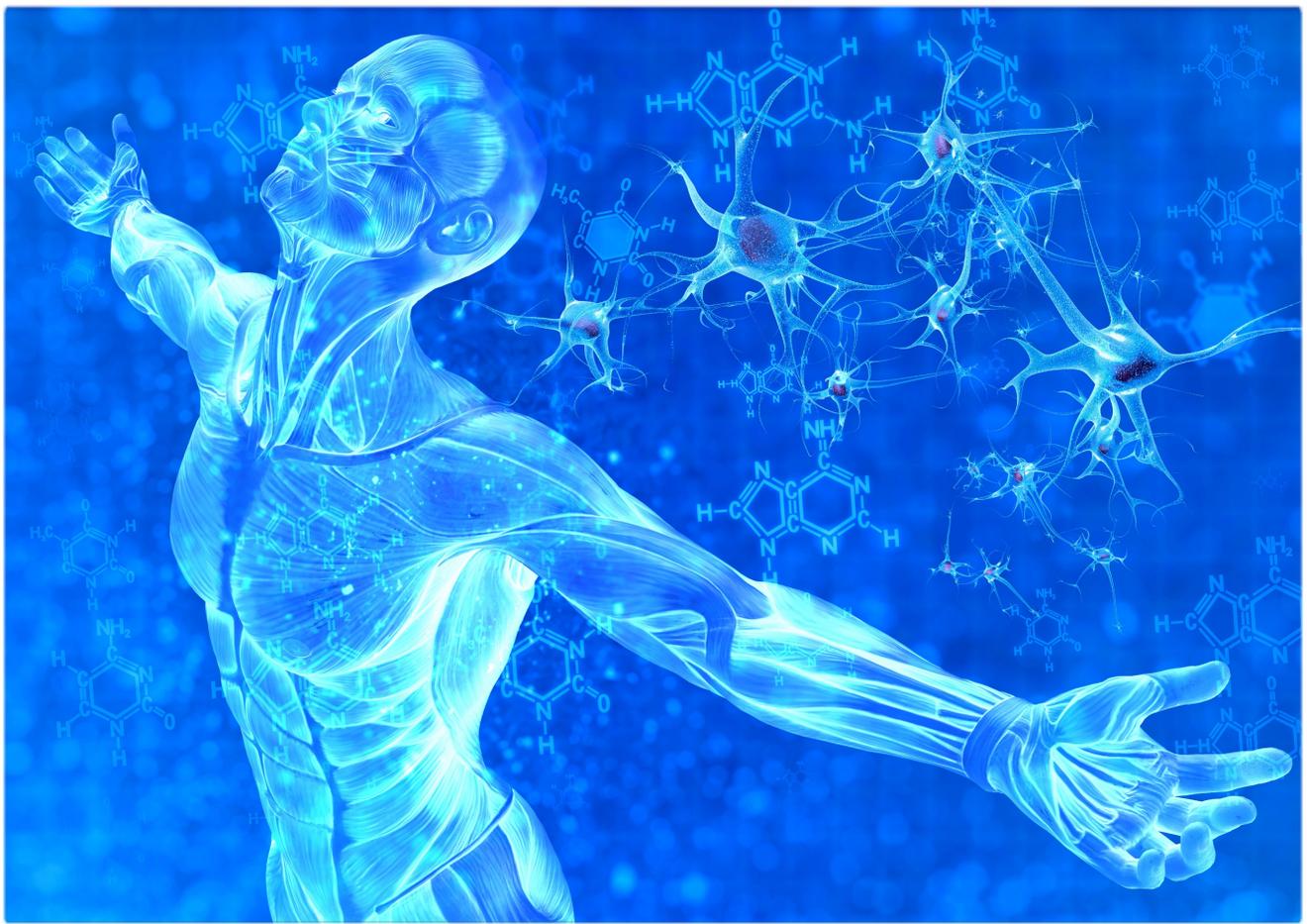

Hormone Deficiency

A MAJOR LINK TO WHY WE AGE

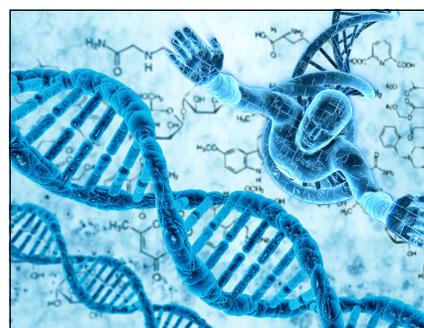


INTRODUCTION

From conception, HORMONES, which are produced by the endocrine glands, serve as messengers from your brain, telling your internal organs how to function. A decrease in the production of hormones begins in middle age and continues to diminish in a linear fashion until old age. Symptoms of aging can include:

- Lack of energy
- Loss of muscle tone
- Tendency toward depression
- Lack of sleep
- Bone degeneration
- Mood swings
- Decreased libido
- Inability to lose weight
- Menopausal symptoms

The great news is that the ultimate in prevention has finally been realized.



Insufficient Hormones Have Been Discovered As A Major Element In The Process Of Aging

Fortunately, the National Institute on Aging has instructed several major U.S. universities to study this phenomenon. Research from around the world during the last five years has led the NIA to realize the tremendous benefits of hormone replacement therapy. The emphasis of allopathic medicine has always been to diagnose and treat a disease process. Unfortunately, many of the disease processes, including cardiovascular disease, stroke, cancer, and Alzheimer's disease have been blamed on the aging process. However, conventional medicine has never treated aging as a disease process, nor has it tried to prevent this disease process. Now we can look at aging as a significant factor in disease and attempt to prevent the symptoms of aging by treating aging as a disease itself. We have begun to change our thinking that it is normal to deteriorate with age and therefore acceptable. Fortunately, we know that much of the deterioration of aging is preventable.

Scientists have realized the importance of supplementation with hormones. Scientists at the Gerontology Research Center of the National Institute of Health in Baltimore, Maryland are working with other researchers to examine the role that reduced plasma

sex hormones play in age-related disturbances, including musculoskeletal function, body composition, and metabolic function. Combined hormone replacement therapy, by returning growth hormone and sex hormone levels to levels typical for young people, has shown additive or synergistic effects. Physical and psychological function is improved, including improvement in cardiovascular function, improved cholesterol levels, increased lean body mass, and improved muscle strength and fitness. Let's take a look at the various hormones and their roles.

Hormones are tiny, chemical messengers continuously secreted into the bloodstream by endocrine glands to regulate activities of vital organs. Hormones stimulate a multitude of life giving processes throughout the body which maintains health, harmony, growth, healing, and repair. Probably the best known hormone is insulin, which is secreted by the pancreas. Before the development of the production and administration of insulin, many people died as a result of diabetes or had severe debilitating illnesses. Once scientists were able to synthesize insulin, the severe changes associated with diabetes were reversed.

Genetic engineering has now enabled endocrinologists to synthesize all the natural hormones found in our bodies. This significant advancement in the ability to synthesize our hormones has led to endocrinology research into the correction of the deficiency of hormones that contributes to our aging decline. It is the operation of the endocrine system that is responsible for the regulation of the body's temperature, sexual desires, growth, healing, aging, and immune system. It is the endocrine system that allows the central nervous system to communicate with every cell in the body. Hormone deficiencies affect every cell in the body and result in degenerative changes and the aging process as well as symptoms of aging. However, bringing hormone levels back to a level we had when we were younger reverses many of the unfavorable effects that begin to appear as we age.

Key Hormones

DHEA

DHEA is a hormone secreted by the adrenal glands. This hormone is a precursor to other sex hormones. In addition to having its own hormone effect, it results in a shift to an anabolic or protein building stage. It reduces cardiovascular risk by increasing lipolysis or breakdown of fat. It also stimulates the immune system, restores sexual vitality, improves mood, decreases cholesterol and body fat. Recent studies point to DHEA as an anti-stress hormone, reversing the effects of stress on the immune system.

ESTROGEN

Estrogen is secreted by the ovaries. Estrogen protects against heart disease, stroke, osteoporosis, Alzheimer's disease, and memory disorders. It protects against vaginal atrophy, urinary incontinence, and prevents symptoms of menopause, including hot flashes and temperature deregulation. It improves balance by improving the vaginal somatosensory system in the central nervous system. Estrogen deficiency results in urogenital atrophy, incontinence, sagging skin in the breast, increased wrinkles in the face, increase fatigue, depression, mood swings, and decreased libido. It is of extreme importance that the estrogen prescribed be a natural estrogen and not a synthetic estrogen. The synthetic estrogens have shown to be harmful. We only prescribe natural hormones and never use the cancer causing hormones (i.e. Premarin). For optimal protection, natural estrogen supplementation should be balanced by natural progesterone supplementation.

MELATONIN

Melatonin is secreted by the pineal gland. It is a circadian rhythm hormone, thereby affecting the patterns of sleep. Research has shown that the cells of the body rejuvenate and repair during the deeper states of sleep. It is during the deeper states of sleep that the body produces natural killer cells or CD4 cells. Melatonin increases the deep state of sleep and stage IV sleep, thereby increasing and enhancing immunity. Improved sleep patterns serve to energize the body and improve mood. Melatonin has powerful antioxidant effects which accounts for disease prevention qualities. Melatonin has tremendous cancer prevention effects due to its enhancement of the immune system. Melatonin deficiency results in poor sleep, jet lag, irritability, hypersensitivity and premature aging.

PREGNENOLONE

Pregnenolone is a precursor to other hormones. It functions as a memory enhancer and is a factor in cellular repair, particularly in the brain and nerve tissue. Pregnenolone protects cerebral function and protects against neuronal injury.

PROGESTERONE

Progesterone is secreted by the ovaries and reduces symptoms of premature

menstrual syndrome. It protects against uterine and breast cancers, osteoporosis, fibrocystic disease, and ovarian cysts. It dramatically decreases menopausal symptoms. Most U.S. physicians prescribe synthetic progestins which cause such side effects as bloating, headaches, fatigue, and weight gain. The natural progesterone must be prescribed in place of the synthetic progestin to avoid the side effects and protect against cancer. We emphasize the use of natural hormones and not synthetic hormones, which have been proven time and time again to cause significant side effects.

TESTOSTERONE

Testosterone is a hormone secreted by the adrenal glands, testes, and ovaries. It contributes to muscle mass, strength and endurance, decreased fat, increased tolerance, enhancement of well-being and psychological status. Testosterone protects against cardiovascular disease, hypertension, body fat, and arthritis. It leads to improved lean muscle mass, increased bone density, decrease in cholesterol, improved skin tone, improved healthy capacity, increased libido and sexual performance. It prolongs the quality of life by decreasing the diseases of aging, as does estrogen in the female. Testosterone is also present and extremely important in the female as well as the male, making supplementation absolutely recommended for men and women.

THYROID HORMONE

Thyroid hormone is a metabolic hormone secreted by the thyroid gland that regulates temperature, metabolism, and cerebral function. It contributes to energy levels, temperature regulation, and body warmth. It increases fat breakdown, resulting in weight loss as well as lower cholesterol. It protects against cardiovascular disease and improves cerebral metabolism. It helps prevent cognitive impairment. Thyroid hormone is probably the safest and most beneficial cholesterol lowering agent, yet is infrequently used for this!

UBIQUINOL (COQ10)

Coenzyme Q10 (CoQ10) is a natural antioxidant synthesized by the body, found in many foods, and available as a supplement. It comes in two forms: ubiquinol, the active antioxidant form, and ubiquinone, the oxidized form, which the body partially converts to ubiquinol. In general, coenzymes support enzymes in their various biochemical functions. CoQ10 is a vital participant in the chain of metabolic chemical reactions that generate energy within cells. It is found in every cell of the body, but is present in higher concentrations in organs with higher energy requirements such as the kidneys, liver, and heart. Many medical studies demonstrate CoQ10 benefits when taken as a supplement, most of which stem from its vital role in oxygen utilization and energy production, particularly in heart muscle cells. Coenzyme Q10 is beneficial for heart health in many ways. It assists in maintaining the normal oxidative state of LDL cholesterol, helps assure circulatory health, and supports optimal functioning of the

heart muscle. CoQ10 may also help support the health of vessel walls. In addition, Coenzyme Q10 may play a role in reducing the number and severity of migraine headaches, and improving sperm motility in men.

VITAMIN D3

Vitamin D3 is one of the most useful nutritional tools we have at our disposal for improving overall health. This vitamin is unique because cholecalciferol (Vitamin D3) is a vitamin derived from 7-dehydrocholesterol. However, Vitamin D3 acquires hormone-like actions when cholecalciferol (Vitamin D3) is converted to 1,25-dihydroxy Vitamin D3 (Calcitriol) by the liver and kidneys. As a hormone, Calcitriol controls phosphorus, calcium, and bone metabolism and neuromuscular function. Vitamin D3 is the only vitamin the body can manufacture from sunlight (UVB). Yet, with today's indoor living and the extensive use of sunscreens, we are now a society with millions of individuals deficient in life-sustaining, bone building and immune modulating 1,25-dihydroxy Vitamin D3. Research has continued to document Calcitriol's role in the risk reduction of fractures to a significant degree. The latest research shows that a deficiency in 1,25-dihydroxy Vitamin D3 is linked to a surprising number of other health conditions such as depression, back pain, cancer, both insulin resistance and pre-eclampsia during pregnancy, impaired immunity and macular degeneration. Furthermore, as we age, we are less equipped to produce sufficient quantities of this vital nutrient.

Supplements and Vitamins

We're often asked by patients if they may purchase supplements and vitamins at retail chain stores. While we understand the desire for convenience and/or to save a little money, there is strong evidence showing an alarming number of supplements and vitamins sold at even high profile retail chain stores do not contain the amount of ingredients labeled. In other cases, the ingredients labeled are not present at all. In recent news, findings proved just that. You can read more about the subject by viewing the links below.

- **New York Times:** http://well.blogs.nytimes.com/2015/02/03/new-york-attorney-general-targets-supplements-at-major-retailers/?_r=1
- **The FDA:** <http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm246744.htm>

When using supplements and vitamins from outside sources, challenges arise because unknown elements and ingredients are introduced (or lack of expected ingredients are missing all together) that can keep our providers from accurately treating the patient.

At The DOCTORS Center Wellness, our patients health is of utmost importance. This is why we strongly encourage you to purchase supplements from our facility or have them filled with a prescription through the pharmacy. We carry the highest quality products that can only be found in medical facilities. In addition, the pharmacies we use are held to the highest industry standards. This makes it easier for you to achieve optimum health and fitness.

SUMMARY

The basics for optimal health and longevity are proper diet, exercise, nutritional supplementation and hormone replacement therapy. This stops cellular degeneration and allows regeneration of tissue, healing, and slowing down of the aging process.

Hormones are not drugs. They are natural substances that have existed in our bodies since conception. The doses of hormones taken with hormone replacement therapy should never exceed what your body has already been accustomed to in its younger years. They caused no harm to the body at that time and when restored to youthful levels, continue to provide the health and vigor that one loses as they age.

When hormones are taken as prescribed by physicians and monitored closely, they produce no negative side effects. When all the declining hormones are taken together in the correct doses, they work with each other to restore declining immunity which in turn helps protect the body against cancer. Physical deterioration is not a requirement of growing older. It is now possible to stop much of this undesirable aspect of aging as well as the symptoms and diseases associated with aging. Hormone replacement therapy is an updated science which has been shown to not only prolong life, but to prolong the quality of one's life. At The DOCTORS Center Wellness, we specialize in total hormone replacement regimes as well as exercise, diet and nutritional supplementation to achieve maximum benefits and deter the aging process. After a complete physical examination and laboratory evaluation, a personalized hormone supplementation program will be prescribed for you and monitored until optimal hormone levels have been achieved