Hormone Health:
How to Get Your Hormones Back in Balance

Hormones: What are they? Why are they so important?

Hormones are biochemical compounds produced by various organs or glands of the body. Hormones are essential to life function. Without hormones, we really cannot survive. They control most aspects of all of our bodily processes. Without hormones, a woman cannot get pregnant. Without hormones, a man cannot get a woman pregnant. Without hormones, a child cannot grow. Without hormones, we cannot sleep. Without hormones, we cannot properly fight infection or the effects of stress. The list goes on.

Think of our body system's functioning like a system of checks and balances. Various hormones control the cascade of functions that occur. Most hormones have an agonist/antagonist type of relationship with\ another hormone. For instance, estrogen and progesterone are both steroid hormones that are dependant on each other. Cortisol and DHEA are adrenal hormones that have such a relationship. Balance is the key to proper hormone function and therefore, bodily function. When hormones become imbalanced, trouble follows. The "system of checks and balances" of our endocrine system will normally respond in an opposite direction. If one hormone improperly rises, another hormone will usually fall. Imbalance is the result.

The Importance of Testing

When hormone imbalance is suspected, it is vitally important to properly test your hormone levels. Many doctors and patients dive into "treatment" with synthetic (man-made, unnatural) hormone therapy or bio-identical (natural) hormone therapy. This is like playing "Russian roulette" with your health and body function. Without testing, it is impossible to know what is going on with your hormones. Treating in such a manner is madness, but it happens all of the time. Doctors prescribe birth control pills, give hormone creams, and/or give injections or patches everyday. All without testing to see what the patient's true hormone levels are at that time.

Proper testing allows for proper treatment and proper results from treatment. It becomes a simple game when you know the players and the rules. Testing allows this to happen. With a reliable and viable test sample, a full picture of the patient's health can be obtained and allow us to fully evaluate the present status and outline an adequate treatment protocol.

Saliva Testing vs. Serum Testing

There is differing opinion amongst physicians as to the best method of testing hormone levels. Some hormones, such as thyroid, are best tested with serum (blood) testing. However, hormones such as the adrenal hormones and steroid hormones are best evaluated utilizing saliva.

Saliva testing allows multiple, time specific specimens. The hormone values reflect real life physiological conditions and responses. Saliva is easily collected by the patient under real life situations in the comfort of their own home. There is really no biohazard involved. Most importantly, saliva testing allows multiple samples to be collected at different times of the day and month. It also measures the unbound bioactive hormone fraction available to living cells of the body. This is the functional hormone level that needs to be evaluated. Such evaluation allows therapeutic options to be expanded and treatment to be very specific.

Serum testing only approximates real life conditions, as it is a single sample only. There is always a possible biohazard issue with the drawing of blood. Most importantly, routine serum hormone testing reflects the total hormone level, not the bioactive hormone fraction. Total levels are crude estimates of the bioactive hormones. Treatment options become limited when using serum testing only.

Hormone Testing in Your Own Home

It is simple as it sounds. The appropriate testing kit is provided to the patient and the testing is performed at home. It is easy and harmless. The simple collection of saliva in provided tubes occurs at specified times of the day and then the samples are mailed to the lab in the packaging provided. The lab evaluates the saliva and the test results are provided to us so that we may

prescribed the appropriate protocols to provide the patient with the desired results.

The Devastating Effects of Hormone Imbalance

Hormone imbalance is a true epidemic in our country. The average American female and male over 35 years of age suffers from some form of hormonal imbalance. With the poor diet, stressful lifestyles and declining popularity of physical exercise, more and more younger men and women are developing hormonal imbalances. The effects of such imbalances increases as we age and become more devastating and harder to treat the longer they go on and the worse they become. Because most of the symptoms come on gradually, it is difficult to figure out initially, until the problems become more pronounced and the hormones become even more imbalanced.

It becomes a vicious cycle that slowly robs you of your energy, your vitality and your life and lifestyle. It also robs your loved ones of their lifestyle. Unless properly diagnosed and evaluated, proper recovery is very difficult to achieve. This is where a properly trained healthcare professional is so important. You will require a doctor who is up to date on hormonal function and can discover “subclinical” hormone imbalances, not just “diseased” glands or organs.

Often times it is the simplest of signs that indicate hormone imbalance, but these signs are blamed on other factors. Some of the initial symptoms include:

- Fatigue not relieved by rest
- Poor sleep
- Craving for salty or sugary foods
- Decreased sex drive
- Decreased ability to handle stress
- Increased time to recover from illness or injury
- Light headed, dizzy, or nausea after periods of not eating
- Depression
- Lack of enjoyment or happiness
- Weight gain/loss

- Anxiety
- Digestive disorders
- Dry and thin skin
- Hair loss
- Unexplained headaches
- Immune deficiencies
- Inability to concentrate
- Infections
- Liver disorders
- Chronic pain
- Inflammation
- Blood pressure problems
- Low body temperature
- Hot flashes
- Night sweats
- Mood swings
- Poor memory
- PMS
- Sleep disorders
- Slow metabolism
- And more and more and more

Various clinical conditions are the direct result of hormone imbalance that, in most cases, can be completely preventable. Such conditions include:

- Chronic viral infections (EBV, Herpes, etc.)
- Yeast overgrowth
- Allergies
- Chronic fatigue syndrome
- Migraines
- Autoimmune disease
- Cancer
- Cardiovascular disease
- Insomnia
- Hypoglycemia
- Type II diabetes
- Osteoporosis
- ADD/ADHD
- Irritable bowel disease
- Celiac disease
- And more and more and more

Quite simply, hormones affect body function. Hormone imbalances affect body functions in a detrimental way. The more hormones and systems involved and the longer the time that the imbalances have been present, the more symptoms will devastate your life.

How Did I Get Like This?

There is a song by the Talking Heads entitled “Once in a Lifetime.” Part of the lyrics ask the question, “How did I get here?” The backup singers provide the answer: “All of the days go by.” This is an appropriate answer for the question that many patients ask: “How did I get like this?” The true answer is that the days go by and by and by and by. Day after day the average American participates in an all-out onslaught on their own health. Overwork, physical and mental overstrain, sleep deprivation, noise pollution, late hours, surgery, medications, injuries, inflammation, pain, toxicity, ingestion of chemicals, poor diet filled with packaged and processed non-nutritive foods, electromagnetic fields, poor digestion, blood sugar issues, environmental xenohormones, allergies, and the list goes on and on. We did not even talk about emotional stressors. Oh, we just did.

All of these insults to our systems lead to endocrine disruption and hormone imbalances. When we chronically don’t take proper care of our systems, they begin to malfunction. Your body may require more of one hormone in a certain instance. When that hormone increases over a period of time, others will begin to decrease leading to imbalance. Allow this strain of the system to go on long enough and you have a full scale war going on inside of you, and you are the benefactor of all the suffering.

Adrenal Glands

The adrenal glands are two small walnut sized glands that sit atop the kidneys on each side. The adrenals are considered our “stress” glands. They produce hormones (over 50). Most notably they produce pregnenolone, DHEA and cortisol. They also make progesterone, estrogen, and testosterone and are directly related in those levels.

The adrenal glands have a major role in the controlling, monitoring and maintaining of various body functions such as:

- Musculoskeletal health
    - Muscle integrity and function
    - Bone production and turnover (osteoporosis)

    - Connective tissue turnover and function
- Neural tissue health
    - Memory and learning
    - Nerve function
    - Sleep and mood functions
- Endocrine function
    - Pancreas/insulin function
    - Thyroid function
    - Female and Male hormone levels and function
- Fat and Protein metabolism
    - Mucosal surface lining integrity (1st line of immune defense)
    - Protein turnover
    - Weight and fat distribution and body make-up
- Detoxification capacity
    - Heavy metals and other toxins
    - Liver function
- Eicosanoid Modulation
    - Inflammation function
    - Immune system regulation
- Metabolism
    - Cell energetics
    - Glucose homeostasis

So many vital bodily functions are affected by the adrenal glands. Chronic stress responses adversely affect the adrenal system and produce excessive loads on the adrenal glands and their production of various hormones.

When the adrenal system becomes overwhelmed, it begins the process of cycling into adrenal dysfunction, fatigue and eventually exhaustion unless something is done to fully evaluate and begin to correct the problem.

Female Hormones

Female hormone imbalance is rampant in our country. It affects nearly all women at one time or another in their lives. Indirectly, it affects us all! It is reported that 60% of American women suffer from PMS. It is apparent that major interference with female hormone balance is occurring on a daily basis. A major cause of these changes is estrogen dominance. Estrogen dominance occurs when the estrogen level increases, or when the progesterone levels decreases. Balance between these two hormones is essential for proper function of the female hormone system and the body.

Research has shown that many women will have months where they do not ovulate. When the women does not ovulate, the corpus luteum does not form, therefore no progesterone is produced. If such a situation occurs again, a progesterone deficiency will develop resulting in estrogen dominant state and all of the issues that ensue with estrogen dominance. One reason for a women not ovulating is the chronic stress response and adrenal fatigue. When adrenal function becomes compromised, hormone imbalances result. Several problems can develop, one of which is abnormal cycles, hormone patterns, long or short periods, and no ovulation.

Estrogen most often takes the blame for various symptoms related to female hormone imbalances. Ask stated earlier, proper testing is the only way to truly determine the status of the female hormones and the imbalances themselves. Below is a list of “symptoms” that normally arise in response to estrogen excess, deficiency and progesterone deficiency.

Male Hormones

Because so much attention is paid to menopause and female hormone issues, men often slide under the radar when it comes to hormone issues. However, men are just as susceptible to adrenal problems, thyroid issues and hormone imbalances. It is commonplace to see men in our office with low testosterone levels. Conventional medical treatment involves the use of testosterone creams or injections. We often see poor results with this treatment regimen. The reason is often due to the fact that the patient has low testosterone levels because of poor function, or the inability to properly convert precursor hormones such as androstenedione or DHEA to testosterone. These precursor hormones are made in the body to be available to convert to testosterone among other duties. Symptoms involved with low testosterone levels are often low sex drive, impaired sexual function, aches and pains, incontinence, thin skin, loss of muscle tone, wrinkled skin, hot flashes, depression, lack of drive, confidence and motivation. Treatment with testosterone can help, but we see using natural supplements that stimulate proper production and conversion to testosterone provides better results, without any side effects. We are often able to discontinue the supplements over time as the body can be re-trained to produce the testosterone necessary to function right.

Men can also have issues with excess estrogen, which leads to weight gain, excess breast tissue, and other symptoms of high estrogen levels.

Maintaining healthy androgen (masculine hormones) levels can aid in a strong cardiovascular system, brain function, strong bones, good sex drive, muscle building, younger looking skin, and fights depression.

Pancreas/Insulin

The pancreas is a vital organ. It makes hormones that are essential to energy production and it makes enzymes that are secreted into the upper small intestine that are essential for proper digestion and nutrient absorption. It produces insulin and releases it in response to a rise in blood glucose (sugar). When we eat, our blood glucose level rises. The brain monitors this and in response signals the pancreas to release insulin. Insulin transports the glucose into the cells of the body so the mitochondria of the cell can convert the glucose to ATP (adenosine triphosphate) which is what we utilize as energy.

It is important that we have normal insulin levels and insulin is released in the right amounts so that proper blood glucose levels can be maintained and proper energy production can be performed.

Many Americans become insulin resistant over time. This is a situation in which the cells of the body become resistant to the presence of insulin and basically do not allow insulin to enter into the cells to release glucose into the cell for energy production. The end result is low energy production and fatigue and weight gain. The weight gain is due to an excess of insulin in the system and insulin is a fat storing hormone. Prolonged insulin resistant states can lead to full blown Type II Diabetes.

On the flip side, we can also be hypoglycemic. This occurs when our blood sugar levels rise and fall quickly.

Chronic hormone imbalance, poor diet, chronic stress and other hormone imbalances can affect our insulin levels and lead to dysfunction, pancreatic disorders and Type II Diabetes. Type II Diabetes is one of the most common preventable diseases. Maintaining proper pancreatic function is essential to avoiding the devastation that is caused by diabetes, insulin resistance and hypoglycemia. Balancing the associated hormone levels is essential and must be maintained as part of an overall wellness lifestyle.