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Male Hormones
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Women got it right long ago that their overall health and well being is connected to their hormonal balance. Men are slow to understand how their hormonal changes inhibit their physical, sexual, and cognitive functions. The outward appearance of a typical middle-aged male shows increased abdominal fat and shrinkage of muscle mass, which is an expression of hormone imbalance. The loss of the feeling of well being, sometimes manifesting as depression, is a common psychological complication of hormone imbalance. Most of these changes are just attributed to aging processes; as such we are expected to accept the fact that our bodies are entering into a long degenerative decline. Wrong! Don't just accept this as fact: there are alternatives.

The most important relationship that has been established is that of testosterone and estrogen when it comes to male physiology. We all have this view that testosterone exemplifies aggressive male and estrogen passive female energy. The trick is in the balance. Testosterone has been known as a hormone of desire, however it should be seen as a "total body hormone," affecting every cell in the body. The changes seen in aging, such as the loss of lean body mass, the decline in energy, strength, and stamina, depression, and decrease in sexual sensation and performance, are all directly related to testosterone deficiency. Degenerative diseases such as heart disease, stroke, diabetes, arthritis, osteoporosis, and hypertension are all directly or indirectly linked to testosterone decline. Testosterone also functions as a pro-hormone. Local tissue conversion to estrogens, dihydrotestosterone (DHT), or other active metabolites plays an important part in cellular physiology.

Excess estrogen seems to be the culprit in prostate enlargement. Low testosterone levels are in fact associated with more aggressive prostate cancer. While fear of prostate cancer keeps many men from testosterone replacement, it is in fact testosterone deficiency that leads to the pathology that favours the development of prostate cancer.
Testosterone improves cellular bioenergetics. It acts as a cellular energizer. Since testosterone increases the metabolic rate and aerobic metabolism, it also dramatically improves glucose metabolism and lowers insulin resistance.
Testosterone is the most powerful cardiovascular protector for men. Low testosterone correlates with heart disease more reliably than does high cholesterol. Testosterone strengthens the heart muscle; there are more testosterone receptors in the heart than in any other muscle. Testosterone lowers LDL cholesterol and total cholesterol and improves every cardiac risk factor. It has been shown to improve or eliminate certain arrhythmias and angina.
Testosterone shines as a blood thinner, preventing blood clots. Testosterone replacement is the most underutilized important treatment for heart disease.
Unfortunately, to many patients' detriment, they are mostly treated with conventional drugs for depression, elevated cholesterol, and a host of other conditions that may be caused by an underlying hormone imbalance. If doctors checked their male patients' blood levels of estrogen, testosterone, DHEA and thyroid they might be surprised to learn that many problems could be resolved by adjusting hormone levels.
A common side effect of antidepressant drugs is the suppression of the sex drive. Sometimes depression sufferers either accept this drug-induced reduction in quality of life, or will get off the antidepressants so they can at least have a normal sex life. Testosterone replacement for those who show low levels of this hormone will often enhance patients' sex drive and will have the opposite effect of most prescription antidepressants. Published scientific studies show that testosterone therapy often produces an increased feeling of well being.

Low levels of testosterone may contribute to the following:

Fatigue, inability to concentrate, memory failure, reduced intellectual agility, passivity, disinterest in surroundings, inner unrest, great timidity, touchiness and irritability, moodiness and emotionality.

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A major problem with aging men is not low testosterone production, but rather excessive conversion of testosterone to estrogen. The resulting hormone imbalance (too much estrogen and not enough free testosterone) especially in overweight men partially explains why so many are impotent and have a wide range of premature degenerative diseases.

Individuals with high estrogen and low testosterone levels could be affected by several of the contributing factors, such as:

- *Aromatase Enzyme* – As men age they produce larger quantities of an enzyme called aromatase, which converts testosterone into estrogen.
- *Liver Enzymes* – A healthy functioning liver eliminates surplus estrogen and sex hormone binding globulin. Excessive alcohol consumption, environmental toxins and pollutants along with many prescription medications impair liver function and are one of the major causes of hormone imbalance. By the way, heavy alcohol intake will have an estrogenic effect on both men and women.
- *Zinc Deficiency* – Zinc is a natural aromatase enzyme inhibitor. Adequate consumption of zinc (30-90 mg/day) helps prevent testosterone to estrogen conversion.
- *Obesity* – Abdominal fat in some circles has been referred to as an endocrine tumour for a good reason. Fat cells create aromatase enzyme that in turn further contributes to more build up of abdominal fat. Low testosterone allows the formation of abdominal fat, which then causes more aromatase enzyme formation thus further converting testosterone into estrogen.

Excessive estrogen can increase the production of SHBG (sex hormone-binding globulin), which binds the active (free) testosterone into an inactive (bound) testosterone. This bound testosterone competes for receptors on cell membranes. For testosterone to produce long-lasting, libido-enhancing effects, it must be kept in the ‘free' form (not bound to SHGB) in the bloodstream. It is necessary to keep excess estrogen in check because this hormone will compete for testosterone receptor sites in the sex centers of the brain and the genitals.
The fact that most men have too much estrogen does not mean that it would be acceptable for a man to have low estrogen. Estrogen is used to maintain bone density, and abnormally low levels may increase the risk for prostate cancer. The objective is to achieve hormone balance and not to go to extremes. However, for the most part the problem is that there is usually too much estrogen and not enough testosterone.

Before starting a supplementation and a natural hormone correction program that may include testosterone replacement, men should have a PSA test and a digital rectal exam to rule out prostate cancer. Very few treatments are risk free and this would be a prudent approach.

A small minority of men with low testosterone and prostate cancer will not have an elevated PSA or palpable lesion detectable by digital rectal examination. If this group uses supplemental testosterone, they risk an acute flare up in their disease process. Continuous monitoring is very important. The major concern that has kept men from restoring their testosterone is the fear of prostate cancer. The misconception remains that since most prostate cells need testosterone it is better not to replace the testosterone that is lost with aging. However, the fact is that most men that develop prostate cancer actually have low testosterone levels and the majority of published evidence shows that serum testosterone levels do not affect one's risk from developing prostate cancer.

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Correcting a hormone imbalance:

* Review all drugs you are regularly taking to see if they may be interfering with healthy liver function. Drugs that can affect liver function include NSAIDs: acetaminophen, aspirin, ibuprofen, the “statin” class of cholesterol-lowering drugs,some heart and blood pressure medications, and some antidepressants.
* Lose weight. Fat cells, especially abdominal fat, produce the aromatase enzyme, which converts testosterone to estrogen
* Make sure you are getting 30-90 mg of Zinc per day, it functions as an aromatase inhibitor for some men
* Consider taking 320 mg/day of Saw Palmetto, 240 mg/day of Nettle (Urtica Dioica)
* Consume 400 mg/day of I3C (Indole 3 Carbinol)
* Take a supplement called Chrysin 1000mg/day along with Piperine 10mg/day, Chrysin with Piperine are flavonoids and act as mild aromatase inhibitors.
* Reduce or eliminate alcohol consumption to enable your liver to remove excess estrogen
* Provide proper adrenal support with Eleutheroccosus Senticosus, Rhodeola Rosea, and DHEA

Consider Muira Puama, Yohimbine, Tribulus Terestris and many other botanicals that increase free testosterone and suppress excess estrogen. increase consumption of cruciferous vegetables (broccoli, cauliflower, etc.)

After reading this please remember that in dealing with sexual dysfunction and libido, there is always a huge psychological component to enhancing well being. Regular exercise, proper dietary assessment, lifestyle choices, emotional stressors, relationship issues and numerous other components may play a crucial part in your own recovery. Physicians and patients urgently need to be educated about the benefits of testosterone and the delicate balance between androgens (testosterone) and estrogens. Each individual has his or her own pattern of hormone balance; this indicates that hormone replacement and balancing should be individualized and carefully monitored.