

Bio-Identical Hormone Replacement therapy for Men and Women to Optimize

Anybody who has watched children become teenagers can give witness to the power of hormones.

They're amazing!

To get one teaspoon of Estradiol, the active ingredient in "Premarin", you'd need to drain all the blood from 250,000 pre-menopausal women. Each of their bodies also contains a teaspoon of sugar and two tablespoons of salt. To get a teaspoon of Estradiol you'd have to deal with a hill of sugar and a mountain of salt.

Anybody who has noticed some loss of energy and enthusiasm may be having some signs of the predictable (but NOT normal) signs of hormone level decline that is common in the aging process.

The thyroid gland puts out less of it's hormones, known as T3 and T4. The adrenal glands make less glucocorticoids (think of cortisone) and mineral corticoids.

We know all about menopause don't we?

It's been said that the difference between a woman going into menopause and a terrorist is that you can negotiate with a terrorist!

Men have a similar problem; Andropause. It doesn't get reported a lot however.

Many folks also have problems with sleep, as they get older as well.

Strength & coordination, energy levels fail, as does enthusiasm. We tend to slow down, as we get older.

Most people think "menopause" when they hear of "hormone replacement therapy" (HRT). Thanks to the Women's Health Initiative (WHI) study we've learned a lot more about "traditional" HRT. Most of us don't realize that the hormones that were studied were not the normal human hormones. The pharmaceutical industry couldn't have funded big studies without the money they get from patentable molecules. It turns out that many of the hormones used in HRT & birth control medications are "designer drugs". Human hormones are modified so that a patent can be granted thus allowing huge profits. Those profits have then funded studies that unfortunately for the pharmaceutical industry cast a bad light on managing aging with their hormones (but not necessarily ALL hormones!). Breast cancer is a huge concern for most women. Estrogen is actually three compounds: E1 is Estrone; this is the biggest culprit for causing cancer. E2 is Estradiol, the predominant form in horses (Premarin comes from Pregnant Mare's Urine) but that doesn't mean it's best for human females. Estriole is E3, the major form that ladies have flowing through their systems during most of their lives (small amounts of the other forms are also present). The WHI didn't look at human profiles, it looked at patented/profitable forms of hormones.

There is currently a lot of interest in "non-traditional" medical circles at advancing the use of "bio-identical" HRT. These are NOT the agents used by the big pharmaceutical houses for lots of profit and potential problems for the patients.

How many ladies get breast cancer, heart disease, stroke or Alzheimer's disease while in their reproductive years?

In my years of practice I have heard of fewer breast cancers than I can count on one hand and no stroke, heart attack or Alzheimer's cases.

This is exactly the premise behind use of bio-identical HRT.

Something else to keep in mind is that it's not just Estrogen that flows thru the ladies systems during their more active reproductive years.

Progesterone is obviously another important hormone that yes, is altered in standard pharmaceutical HRT as well.

Many don't realize that Testosterone is also present in the ladies. It's largely responsible for that libido that we all enjoy so much. A little of it is essential; too much and we're looking at "the bearded lady" with wild mood swings to boot!

Di-HydroEpiAndosterone (DHEA) is another hormone that is a precursor to many of the sex steroids (which incidentally all derive from that dangerous substance "cholesterol"). Properly done Bio-Identical HRT comprises ALL of these substances in a careful balance.

Some practitioners want to test hormone levels prior to prescribing. This is a tricky thing to do since the hormone levels are constantly fluctuating during each day as well as the obvious cycles that happen monthly during the reproductive years. It's hard to interpret a blood test due to this constant daily variation. Some labs use urine and/or saliva testing of the hormones to produce a more "pooled" lab test that can be easier to interpret.

Other practitioners will have a standard "starting point" formula that is used. After a few months on the therapy testing can be done if the mix isn't controlling symptoms properly and then the formula can be fine tuned for a more appropriate response.

Route of administration is also important. Hormones have what is called "first-pass effect". When given by mouth they go through the liver before reaching the rest of the body. The liver's job is to detoxify and remove poisons and yes, hormones as well from the body. This is obviously problematic for dosing a substance that works in such a minute concentration in the body. It's impossible to predict how much an individual's liver will remove since so many other drug, genetic and dietary factors influence how efficiently a given person's liver will work on a particular chemical.

Currently the preferred method is to deliver the hormones thru the skin, transdermally. Since the hormones vary cyclically throughout the day we typically dose the hormones more than once daily as well. Most of us are not able to keep up with multiple daily doses of medications. There is a rule of thumb that the more times a drug needs to be given during the day the more doses will be missed or taken improperly. This is known as noncompliance. A reasonable solution is to use a cream that is rubbed into the inner surface of the arm or leg twice daily. Enough to provide some daily cycling but not enough that multiple doses will be missed. This delivery system avoids the first-pass effect and actually has been linked to a lower risk of breast cancer.

Next month we'll review other hormones that are given to provide comprehensive physiologic Bio-Identical Hormone Replacement.

Imagine having tickets to attend a concert of a large philharmonic orchestra at the Kravitz center. On arriving and taking your seat the curtain lifts and the show begins... Instead of seeing a full orchestra however, you see a soloist or a duet.

This is probably NOT going to provide the benefit and enjoyment of a full orchestra.

Hormones are a lot like musicians in a large orchestra. They do their best when working together in harmony.

As we get older, men and women tend to have declines in hormone levels. There are many reasons for these declines, age itself is part of the problem. Another part of the problem is that in this "modern" world that we live in, there are a lot of pollutants and other chemical assaults on our systems. Pesticides and their breakdown products or residual metabolites can have hormone-like effects. Organs don't work as efficiently due to factors such as this and the accumulated oxidative and other damages that happen to all of our organ systems over time.

It's important to repair the damage at the cellular level with good nutrition and detoxification. It's also very helpful to get the declining hormone levels back to a level that they were at during a time of our lives where we had more vim, vigor and vitality.

Luckily all of this is possible and these hormones can be taken as medications to provide their effect on the various parts of the body even after the organ initially responsible for their production has fallen behind in its job.

Women take Estrogen and Progesterone at least for HRT. Ideally they should be getting some Testosterone and DeHydroEpiAndosterone (DHEA) as well.

Men can take supplements of Testosterone. This will help restore the vigor and vitality of years gone by, improve strength and coordination and yes, let's not forget that the mood & libido will also benefit. It also treats osteoporosis which although rare does afflict some men. Testosterone can be taken as a patch but works best when given by injection for most men. In other countries formulas are available for patches that work better than we have in this country.

It's probably a good idea to take a supplement such as Saw Palmetto or a prescription drug such as Proscar, Flomax or Avodart. The prostate gland is sensitive to the effects of testosterone. Many believe that the use of extra testosterone puts the patient at risk for enlargement of the prostate and/or cancer. Use of the supplements listed will help prevent this risk.

Thyroid hormone is also essential for proper functioning. It typically also tends to fall off some with aging and can be taken as a supplement by mouth. T4 is the form produced by the thyroid gland, in the peripheral tissues of the body it's converted to the more active T3 form. Most prescription drugs of this hormone are only the T4 form. Many anti-aging practitioners prefer to use the mixed T3 & T4 form given as a single pill daily. The blood levels need to be monitored periodically with use of this medication.

Stress is another area of concern in this era of mankind. Perhaps you've heard of Adrenalin, the "fight or flight" hormone made by the adrenals. Stress increases this, chronic unrelieved stress can put the adrenals under a lot of stress such that they may eventually start to fall behind in meeting the body's needs for the critically important adrenal hormones. The astute aging management practitioner will evaluate the function

of the Adrenal glands and possibly the Hypothalamic-Pituitary-Adrenal axis to enhance the level of function.

Sleep can be disrupted during aging as well. Melatonin is an "over-the-counter" (OTC) hormone that can help initiate a natural sleep. It is not addicting. Melatonin won't disrupt the normal cycles of the sleep architecture or prevent/distort the all important REM state where dreaming happens.

The Pituitary also produces Somatomedin, also known as Human Growth Hormone (HGH). HGH levels are highest at about the age of twenty and declines steadily throughout aging. This is a more expensive hormone to replace. HGH is only given by injection at least once daily. There is the possibility that it can accelerate cancer growth since it has a tendency to accelerate growth and cancer is the growth of "out of control" cells. These fears have not really come to pass in the decades that this hormone has been given for this purpose however. True HGH is ONLY given by injection at this time. Oral packets of the amino acids that it is made of can sometimes enhance the levels a bit but not as reliably as taking the injections directly themselves. As with so many of the hormone replacement strategies it also requires regular follow up and monitoring of the therapy. The apparent age-reversal effect of this substance is awesome and amazing! Folks in their 70s can look like their only in their 40s if they take enough of it as part of a comprehensive anti-aging approach. This approach includes avoiding toxins & excessive weight, getting adequate exercise, rest and generally taking good care of yourself.

There are many things that we can do as a team to manage the aging process. Most of the work falls on the patient to live a good clean life, avoid damaging substances, behaviors and activities. It's essential to also have a knowledgeable guide to provide guidance, monitoring, management and the necessary prescriptions for the hormones that are not available over the counter.

To Your Health!

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