

Achieving Optimal: Dr. Tim Jackson on Healing Your Hormones



If you have a documented deficiency of a vitamin or mineral, it would only make sense to replace that nutrient. If you have less-than-optimal hormone levels, it is becoming “in vogue” to supplement or replace that hormone as well. But with hormone deficiencies showing up

at increasingly earlier ages, at what point do we draw the line and investigate alternatives? Does a 19-year-old female really need exogenous progesterone? Does a 21-year-old male require lifetime testosterone replacement? Even if the answer to the previous questions is yes, wouldn't those two individuals end up deficient once again and require higher doses without addressing the mechanism behind the low hormone levels? Perhaps you're already on a cocktail of bio-identical hormones but haven't seen the benefits that you were expecting. Whatever the case may be, I hope to outline some potential mechanisms below that may shed some light on various scenarios that I see happening and keeping you from living the life you want.

Hormones and BMWs

Your body knows nothing of looking good on the beach or performing well on the sports field or in the bedroom. It only

knows of one goal – keeping you alive. And you can live without testosterone. You may not feel well, but you'll live. Ladies, you can live without your precious progesterone, albeit not very well. But you cannot live without cortisol; you'll die within a short period of time. For this reason, your body will sacrifice other hormones in order to keep cortisol levels up, especially in the presence of inflammation. Think of the sex hormones as your new sports car or BMW. Let's say a war breaks out and you need the doors and other metal to shield your house. Suddenly, your BMW or sports car doesn't seem nearly as important. In our bodies, this is often referred to as "pregnenolone steal syndrome." Normally, pregnenolone, which is made from cholesterol, gets converted into DHEA, which is then transformed into testosterone or estrogen. Under stress of any form, pregnenolone gets turned into progesterone, which is then converted into cortisol. This is one of the reasons why so many females have issues with their monthly cycles and present low on lab work for progesterone. Some texts refer to this as 'progesterone steal' in females. You can replace the progesterone, testosterone, etc., but it is only a matter of time before your body continues depleting its pregnenolone stores.

What Causes Hormone Imbalances?

What type of stressors lead to pregnenolone steal? ANY form of stress: blood sugar imbalances, circadian disruption, emotional stress, malabsorption, systemic infections, dental infections, dysbiosis and many others. In short, anything that disrupts the normal homeostatic state of the body will activate the HPA. Until you successfully remove that stressor, you're unlikely to experience optimal health. Remember: your body only has one stress response, i.e., fight or flight. And if your brain thinks you're running from a tiger, how high on the physiological hierarchy of needs do you think sex is? Or, as I tell my male clients, "you can't have an erection running from a dinosaur!" Any type of inflammation or other stressor

will cause the release of cortisol to help put out the inflammatory fire. Chronically high cortisol will cause blood sugar fluctuations and inhibit the conversion of T4 to T3. In addition, those blood sugar and insulin fluctuations lead to increased oxidative stress, a very bad situation for your mitochondria. If you throw in a SNP of MTHFR, GSTM, SOD, etc., the mitochondria are even more vulnerable to oxidative damage. And the decreased T4 to T3 conversion that occurs will lead to a sub-optimal body temperature. When this occurs, your immune function drops significantly. In fact, all of your enzyme functions decline. But if the only solution is to add thyroid hormone or hydrocortisone, the chances of achieving optimal are pretty slim.

The Hormone Symphony

The adrenals and thyroid are intimately connected. Dr. Kruse has already discussed the importance of the PVN and the fact that the brain must be able to tell time. I agree completely. I would only add that we must also address systemic causes for inflammation in order to completely balance the hormonal cascade. Optimizing hormones is NOT about elevating one hormone to supra-physiological levels and suppressing the antagonistic hormone. Hormones are like a symphony – each one plays a crucial role. Above, we discussed what elevated cortisol can do. Low cortisol levels are equally dangerous as you'll be unable to mount an effective immune response or control inflammation. In addition, a certain level of cortisol is needed for the thyroid to function. If your body temperature remains sub-optimal despite exogenous thyroid, the problem may reside with a low cortisol level. And if you're taking a Statin drug that blocks the formation of cholesterol, how well do you think you're going to create pregnenolone, which then makes cortisol? Not very well. Take home message: Cortisol and thyroid imbalances should always be managed first since these two hormones (namely thyroid) allow the usage of all of your other hormones.

Insulin Resistance and Hormones

Dr. Kruse has discussed in detail the impact of blood sugar imbalances, leptin issues, etc. Insulin resistance should not be overlooked in the case of sex hormone imbalances. In women, elevated blood sugar will increase testosterone levels. This is one reason why women with PCOS can develop facial hair. In men, high blood sugar will raise estrogen levels. The more insulin resistant a male is, the more likely he is to aromatize testosterone into estrogen. Do you think giving testosterone replacement to a male with insulin resistance is a good idea? Actually, the answer is maybe. We know from the literature that optimizing testosterone will improve insulin sensitivity and reduce waist size. But each situation must be viewed differently. One thing is for sure – you can't go wrong by improving insulin sensitivity prior to beginning testosterone replacement. When a male does begin Testosterone replacement therapy, it is of utmost importance to keep an eye on Estradiol. In general, an optimal E2(estradiol) level for males is between 15-20. We must keep in mind, though, that men with very low testosterone levels will also have low levels of E2. The more testosterone that is available, the greater the chance for increased levels of estradiol, which opposes testosterone at the receptor levels. Elevated estrogen has the potential to increase sex-hormone binding globulin (SHBG), as well as thyroid-binding globulin (TBG). Hopefully, you can now see the havoc created by elevated levels of estrogen and how the entire hormonal cascade can potentially be altered.

What have your experiences been with hormones and hormone replacement therapy? Did you get the results you were looking for? Share your experiences with us! Leave a comment.

About Dr. Tim Jackson

Dr. Tim Jackson, D.P.T., received his undergraduate degree in Health Science and Chemistry from Wake Forest University in

2003. He completed his Doctorate in Physical Therapy (DPT) from the Medical University of South Carolina in 2009. Realizing that manual therapy and orthopedic care helped only some of his patients, he began studying functional and environmental medicine, as well as digestive health, in an effort to help others achieve wellness.

Dr. Jackson is educated in nutritional biochemistry, digestive health and its systemic effects, as well as functional endocrinology. He recently completed the Spine portion of the Active Release Technique methodology, a system that addresses musculoskeletal trigger points and helps to expedite the healing process. Currently, he is working on his Functional Diagnostic Nutritionist certification.

Dr. Jackson trained with Dr. Kendal Stewart, M.D., to learn the far-reaching implications of methylation deficits and their role in neuro-immune syndromes. He combines his background in integrative medicine with the cutting-edge protocols developed by Dr. Stewart to optimize patient outcomes.

Heal Your Hormones Bootcamp

Dr. Jackson will be the host of our upcoming Heal Your Hormones Bootcamp, a five-week program to help you dissect the protocol you need to more fully diagnose and treat your hormone issues. The Bootcamp begins on Tuesday, Nov. 12, and runs through Dec. 10, so register now!

Click [here](#) to listen to the FREE, community-wide introduction to *Healing Your Hormones* with Dr. Jackson, a two-hour webinar and Q&A.

Additional Resources

- [Heal Your Hormones Bootcamp](#)

- Energy and Epigenetics 3: Autoimmunity, Cancer, Autism
- How Does the Leptin Rx Work?