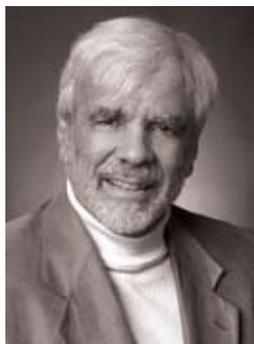


Bio-Identical Hormone Replacement

An Interview with Jonathan Wright, MD

by Sadiqua Hamdan, MA



Dr. Jonathan Wright is the Medical Director of Tahoma Clinic in Renton, Washington, where he also practices. The clinic, which Dr. Wright founded in 1973, focuses on disease prevention and treatment by natural biochemical means. The infamous 1992 FDA Tahoma Clinic “raid” (“The Great B-Vitamin Bust”) was a major impetus for Congressional reform of vitamin/mineral regulation. Dr. Wright continues to be an advocate for patient freedom of choice in healthcare.

He is both a Harvard and University of Michigan graduate and, since 1983, has taught natural biochemical medical treatments to thousands of physicians in the U.S., Europe, and Japan. In 1982, he personally developed the clinical use of bio-identical estrogens, and was the first to use DHEA in private practice. He originated a natural treatment for elimination of childhood asthma, D-Mannose treatment for E. coli urinary tract infection, and discovered cobalt’s effect on estrogen detoxification.

Dr. Wright has authored/co-authored 11 books, selling over 1.1 million copies, with two achieving best-selling status: “Book of Nutritional Therapy” and “Guide to Healing with Nutrition.” He authors “Nutrition and Healing,” a monthly newsletter emphasizing nutritional medicine in medical practice that reaches over 100,000 readers worldwide. Dr. Wright also speaks nationwide at medical association conferences and, along with Alan Gaby, MD, presents the comprehensive and scientifically documented “Nutritional Therapy in Medical Practice.”

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Please briefly explain BHRT and why it is important?

BHRT stands for Bio-identical Hormone Replacement Therapy. It refers to the replacement of hormones with molecules that are precisely identical to the

hormone molecules our own bodies made in greater quantities when we were younger. The aim of BHRT is to increase hormone levels to a place where we’re confident we can reduce risks of specific health problems existing today that did not exist prior to the 20th century, as well as relieve menopausal symptoms.

Menopausal symptoms are one example of where BHRT can really help. By nature, women’s hormones drop much more abruptly than men’s and create quite a shock to the brain. Possibly because they come on gradually—not at the relatively rapid rate of menopause—it’s not always recognized that many of the changes that happen to men in their fifties and sixties are due to a gradual decline in testosterone, not simply their age. These changes include not just loss of libido, but also declining muscle mass and tone (even with considerable exercise), variable decline in memory and cognitive function, worsening mood, and loss of enthusiasm about many things that used to be of considerable interest.

There is “hard science research” and epidemiological evidence that the hormones our bodies produced in greater quantities when younger, if kept at higher levels, can go a long way towards reducing the risk of Alzheimer’s. Alzheimer’s was rare in the nineteenth century, yet, according to the National Institute on Aging’s website, 45 percent of people who live to be 65 years old will have Alzheimer’s disease by the time they’re 85. Hormones also offer protection and risk reduction against cardiovascular disease and reduce the risk of bone loss in both men and women.

Excellent research from Georgetown University shows that estrogen is important for maintaining female lung function.^{1,2,3,4} This is significant because among non-smokers, eight times as many men as women get COPD (congestive obstructive pulmonary disease).

What are some indications or symptoms that men and woman should look for to see if they need BHRT?

For women, symptoms of menopause itself include hot flashes, depression, mood swings, inability to sleep, irritability, and forgetfulness. Remember, though, that just relieving menopausal symptoms, as important as that can be, is “just a start.” Unfortunately, impending heart attacks and bones about to break from osteoporosis rarely have “symptoms” before they occur.

Symptoms in men are subtler but include decreased libido, grumpiness, tiredness, forgetfulness, and inability to build muscle mass.

Why is BHRT often necessary today when our healthy ancestors did not need it?

Western civilizations in the 20th and 21st centuries no longer adhere(d) to the dietary patterns that Dr. Weston Price observed in his tour around the world and then documented in his book *Nutrition and Physical Degeneration*. Compared to the indigenous populations that Dr. Price studied, many, many fewer people today follow a traditional diet of foods that are unprocessed, unrefined, natural, and pesticide-and hormone-free.

It's known that Asian women who follow a traditional diet do not get menopausal symptoms, or if they do, they're mild. For men who follow a “traditional human diet” — again, 100 percent natural, organic, unprocessed, unrefined, and pesticide and hormone-free, hormone levels decline as well, but more gradually. Men who do not follow a traditional diet experience symptoms in their fifties and sixties that are not strictly related to aging but are due to a decline in testosterone. Hormones help men feel better, too.

Can the need for hormone replacement be eliminated or mitigated?

It could be mitigated if one were to use a time machine to travel back to a time when the term “organic farming” didn't exist, because all farming was organic. Then sugar, food refining, chemical farming, herbicides, and pesticides all started making their way into the picture and food began to change. However, eating a “free-range,” non-GMO, organic, hormone-free diet can reduce the need for BHRT.

What dietary habits lead to hormone imbalance, and are there specific foods we could eat to correct that?

Not really. There are no “wonder foods” for keeping up your hormones. It is true that omnivores have higher levels of hormones compared to vegetarians. But it is also true that vegetarians have more bone mass, which has less to do with hormones than with the acid/alkaline balance in the body. Eating a particular food, like soy, for example, that contains a lot of plant estrogens, does not equate to higher levels of hormones. Research in Japan shows that middle-aged individuals who ate soy 4 times a week had greater cognitive decline than those who didn't. Basically, the type of diet that seems to be best for the human system is one we could have been eating when we were in pre-farming, pre-agricultural days — tens of thousands of years ago. Few of us have fully adapted to farmed food, even though we don't recognize that because we literally have no way to personally observe how healthy we'd be without it unless we radically change our present diets. However, one observable characteristic is that a large percentage of food allergies and sensitivities are caused by dairy products, gluten, soy, and corn — all farmed foods.

One third of all men 45 years of age and older are predisposed to making too much estrogen out of testosterone. Men aren't aware of this and doctors often overlook it or treat it incorrectly. So many men have this tendency because the aromatase enzyme that converts testosterone into estrogen is induced by insulin.

One third of men (and women, too) in the United States have a genetic tendency to develop type 2 diabetes. These people have gone through several decades of increasing insulin resistance before getting type 2 diabetes. The increase in resistance means the body has to make more and more insulin to overcome it so that sugar can go efficiently into the cells where it gets burned for energy. That gradually increasing insulin signal makes more testosterone turn into estrogen, which is obviously more of a problem for men than for women.

With that said, do not take a patent medication that reduces estrogen because it can often drive a man's estrogen level too low. Studies show when men's estrogen is cut down too far—below the normal level for males—bone density is lost. Why? Because it's the estrogen that is transformed from testosterone, not the testosterone itself, that builds bones.

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If lab tests show that a man is turning too much of his own testosterone or administered testosterone (rubbed on skin) into estrogen, the best thing to do is to run an insulin resistance test. For more information about insulin resistance testing, visit Meridian Valley Lab's website (www.meridianvalleylab.com). If you have insulin resistance, you're on the road to type 2 diabetes unless you change your diet. If you don't want to go "all the way" to type 2 diabetes, you'll need to go on a special diet, do high intensity exercise, and add supplements (vitamin D, omega-3 fatty acids, chromium, and many others) to reduce insulin levels. It takes time—sometimes a year or more—but the insulin resistance can be normalized, and with that, the insulin signal also drops from overly high to normal, so the tendency to make excess estrogen from testosterone disappears.

While a man is working on the cause of the excess estrogen, instead of patent medicines he can use a combination of Chinese botanicals to lower estrogen levels to male-normal, but not too low. There is a normal level of estrogen for men, and exceeding that level can also cause problems—affecting the cardiovascular system and prostate gland, for example.

You hinted that men's hormones are declining at an earlier age than in prior generations. Why is that?

A study was done involving Danish organic farmers and Danish university students.⁵ It observed men in their forties who practiced organic farming, ate their own produce, and followed an organic way of life for at least 20 years, and also male university students mainly in their early twenties. Guess who had the higher testosterone levels? One would expect a twenty-year-old to outperform a forty-year-old man anytime, but that was not the case in this study. Why? If you're a university student studying hard and not eating right or eating the average Danish diet (which you would hope is not as bad as the American diet), the study suggests you should eat like a Danish organic farmer, even if you're not one.

How can lifestyle habits like lack of exercise and sleep affect our hormones?

Night shift workers are prone to breast cancer and other cancers largely due to the disruption of melatonin secretion. Melatonin is not a hormone usually included in BHRT, but people who need to sleep better can buy it off the shelf. Without melatonin coming in at the right time, mainly overnight, cancer is more likely to develop.⁶

Exercise is good for raising testosterone and estrogen levels. Getting enough sleep will help them as well. If we went looking, we could find other hormones that would be significantly affected by a lack of sleep and exercise.

How does stress affect our endocrine system?

Higher levels of stress increase cortisol, an active form of cortisone, which is on ready reserve to help us handle stress. Continuous or prolonged stress, however, causes a catabolic response in the body by breaking down our tissues. This is a perfectly natural process. New molecules go in and old molecules go out. While cortisol accelerates the breakdown of tissue, by contrast, estrogen, testosterone and DHEA accelerate building it. If there is a disproportionate amount of cortisol with respect to the other three hormones, tissue will break down and something will go wrong more quickly. This also throws off our neurotransmitter balance. We want a strong cortisol response when acute stress comes on, but then we should do everything we can to calm down, such as meditation or plain old relaxation.

How do environmental toxins affect our hormones, and what can be done about it?

I run into people who have all the signs of a weak thyroid, but test results appear normal. By taking the extra step of performing a test for reverse T3 (rT3), one may find the problem. Ninety percent of regular thyroid tests omit reverse T3. The active form of thyroid hormone (T3) helps us stay awake and energized. But do we want to burn energy in times of famine or starvation? In this case, our bodies make more than "normal" levels of reverse T3, which blocks access of regular T3 to its receptors. This causes less energy to be burned, so we live longer in times of famine. As I mentioned, T3 and rT3 balance each other if one is eating a good diet. Davis Lamson, ND, a Tahoma Clinic colleague and former Professor of Oncology at Bastyr University, went to a clinical laboratory, and examined nearly 2,100 test panels that included all thyroid hormones, even rT3. The tests had been done because the doctors ordering them suspected weak thyroid. The most frequent abnormality—as seen in 32.5 percent of panels—among people who had signs and symptoms of hypothyroidism was a higher than normal level of reverse T3, with abnormal TSH (thyroid stimulating hormone) a distant second at 12 percent. It was then determined that nearly every

person with elevated rT3 had high levels of toxic metals in their body. When they were treated with chelation therapy to rid the body of these toxins, their symptoms of weak thyroid cleared up and the rT3 was lowered to normal.

Are soy derivatives like isoflavones and genistein useful for treating women with hormonal problems?

There is no better treatment for lack of hormones than BHRT. However, soy derivatives may be a useful alternative for women who are afraid of BHRT due to a history of breast cancer, or for men and women who would prefer an alternate treatment.

Since raw dairy is packed with natural growth hormones for baby animals, should humans consume it? Is there an advantage to drinking goat's or sheep's milk over cow's milk?

If a person is going to drink the milk of another species, it is best in its raw state. But if one looks at a book on medical genetics, one finds that ninety percent of Asian and African ethnic groups cannot tolerate milk, with the exception of a few dairying tribes in Central Africa. Only a fraction of Caucasians have evolved to be able to tolerate milk and dairy, but it is really not good for a baby or adult human. There is no advantage to drinking goat's or sheep's milk either. Human breast milk is the only milk I can recommend and it is not currently—to the best of my knowledge—available on the market.

Do eggs have any beneficial hormones and if so, what types do you recommend?

There are no hormones known to be useful to humans in chicken eggs. But there are relatively large quantities of very useful substances called “phospholipids.” Our brains gradually lose the ability to synthesize phospholipids as we grow older so it makes sense to eat something with major phospholipids in it. Eggs are an excellent source. Even though soy contains lecithin (a phospholipid) I do not recommend eating it since it lacks the essential omega 3 fatty acids that our brains also need, along with the phospholipids, to form cell membranes. For men, soy contains too many plant estrogens for regular consumption. But back to eggs: the best type of eggs come from a chicken that is truly free range and has been feeding on an omega-3 source, including green plants such as purslane (an excellent source of omega 3s, and insects).

Are herbal remedies ever appropriate for treating hormonal imbalances? If so, which do you recommend?

Hormonal imbalance can be present with or without menopausal symptoms. For example, a 33-year-old woman may have no symptoms at all but is checked because of a family history of breast cancer. If she has a higher level of 16-alpha-hydroxy estrogen than 2-hydroxy estrogen, then she's at significantly higher risk for breast cancer.

Are herbal remedies good? Sure they are. Black cohosh is an herb that increases estrogen to some extent, and some European women report feeling better when they use it. Dr. Garry Gordon, one of the co-founders of the American College for Advancement in Medicine, has popularized an herb called *Pueraria mirifica* (Kwao Krua) from Thailand that he called HRT (“Herbal Remedy from Thailand”). It actually contains a small quantity of estriol, an anti-carcinogenic estrogen present in human women, and may relieve menopausal symptoms. Another herb, *Vitex agnus*, in large doses, can increase progesterone levels. A woman can find a number of botanicals that can lessen symptoms of menopause and postpone the need for biomedical hormone replacement. The second type of hormonal imbalance is having too much of the wrong kind of estrogen. It's been proven by Dr. Leon Bradlow of Rockefeller University and colleagues that, if a woman has an imbalance in the ratio of 2-hydroxy to 16-alpha-hydroxy estrogen, then she is more likely to develop breast cancer. A woman in this situation does not have to use herbs but should instead eat cruciferous vegetables—broccoli, cauliflower, cabbage, brussels sprouts, bok choy, and others—that contain substances that lower the risk of cancers by increasing 2-hydroxy and lowering 16-alpha-hydroxy estrogen.

There are actually dozens of molecules called “estrogen” as a group. One is estriol. Research tells us that the human body has two estrogen receptors: alpha, which can stimulate cell proliferation and even cancer growth, and beta, which reduces cell proliferation and can stop cancer from developing. Estriol acts as an anti-carcinogen and levels can be increased by foods that contain a lot of iodine and seaweed—that is, unless estrone and estradiol, which are both carcinogenic, are produced in greater quantities. Fortunately, a low level of estriol synthesis happens in only a small percentage of women, and is likely

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a DNA problem. This is why people who follow a traditional Japanese diet, which has the highest level of iodine in the world, have the highest average levels of estriol and the lowest risk of breast cancer. The lowest intake of iodine is the U.S. and Mexico, and those populations are known to have the highest risk of breast cancer in the world.

For men, if testosterone drops below what we want, we consider that an imbalance. There are botanicals that can raise testosterone: *Tribulus terrestris* and *Ashwagandha*, which can both be found in your local natural food store.

Are there nutritional supplements that might be helpful for preventing or treating hormonal problems?

Vitamin A (not beta-carotene) helps with menorrhagia (really heavy menstrual bleeding). A study was done with women who took 50,000 I.U. of vitamin A for six weeks.^{7,8} In more than 50 percent, the menorrhagia stopped and another 30 percent had substantial improvement. Vitamin A significantly elevates estrogen. A sub-group of women in their twenties who had no periods at all were studied and found to have extremely low estrogen levels. These women all took vitamin A, their estrogen levels tripled, and their periods became normal.

Vitamin A also has a lot to do with testosterone production, but we rarely get it in our diets. How many people do you know who eat raw liver these days? We think if we eat enough carotenoids that our bodies will make enough vitamin A. A weak thyroid will prevent that from happening efficiently. It is a good idea to consider vitamin A if we want to keep our hormone levels up. However, women who may become pregnant should be careful because daily vitamin A doses higher than 10,000 I.U. can increase the risk of fetal defects.

In the Iranian Dwarf Study, biochemist Ananda Prasad, now known as one of the leading zinc researchers, set out to find the cause of the high rate of dwarfism in the farming villages of Iran, where the average 22-year-old grew to be only 4 ft. 9 in. (145 cm).⁹ There was no evidence of secondary sexual characteristics (e.g. facial hair, normal sized genitals) and the women weren't having regular periods. Dr. Prasad finally traced it to zinc, which was lacking due to the large amount of grains (wheat) in the diet. Grains have phytates that bind zinc and prevent it from being assimilated. Dr. Prasad gave the young

people a lot of zinc, and they grew three to four inches and blossomed sexually.

What was discovered was that zinc and vitamin A were the keys to the secretion of growth hormones, as well as estrogen, testosterone, and so forth. However, before anyone rushes to the store and starts chowing down on zinc, they should be aware that it needs to be balanced with copper. Otherwise, an imbalance of zinc and copper could cause cholesterol levels to increase, HDL to decrease, and cause an irregular heart-beat. One should consult with a nutritional therapist to see if copper supplementation is needed.

Finally, boron elevates serum levels of estrogen in women and testosterone in men. Zinc, boron, and vitamin A appear to be the most important nutrients for helping us make better sex hormones, while vitamin A and zinc are the most beneficial for growth hormone production.

What are your thoughts about non-prescription hormone products like DHEA, pregnenolone, and glandulars?

Taking DHEA in capsule form is a bad idea. It is a wonderful hormone but the route of administration is wrong. That's why we're told not to swallow estrogen – because it causes inflammation of the liver and increases the risk of blood clots. If you are going to use estrogens and DHEA, rub them on. Although DHEA taken orally does not cause inflammation or blood clots, it follows the same route as anything else that is swallowed. It is transported to the gut and then to the liver. When hormones get there, it's the liver's job to dispose of them. This is therefore not the first place hormones should go.

When you rub them on, hormones go through the blood vessels and into the heart, not the liver. The heart pumps the unchanged DHEA into the body so every cell gets a crack at the original hormone, so the basic rule with steroid hormones, particularly estrogen, testosterone, progesterone, and DHEA, is to NOT swallow them. You do not get the full effect from any ingested hormones because the liver is busy disposing of them and your body does not have a chance to use them at all. Taking hormones orally can cause unforeseen hormonal imbalances. As a case in point, two weight lifters came to my office who had been taking large doses of pregnenolone by mouth. I had them do the best test available, where a urine specimen collected over 24 hours was used to test

30 different steroid metabolites along with thyroid and growth hormone. Their estrogen levels were 20-30 percent above male-normal. In another case, a woman came to me who had been taking pregnenolone and it raised her cortisol abnormally high.

Instead of glandular, I now use cell therapy, which was started by Dr. Paul Niehans in the late 1920s. A woman went to see Dr. Niehans after she had her goiter (enlarged thyroid) and parathyroid glands removed, the latter accidentally. She had a number of symptoms of calcium insufficiency, including titanic [powerful] spasms. Once the parathyroid gland is removed, your body can no longer regulate calcium properly. It drops low in the bloodstream and people die within a few weeks due to lack of available calcium. To help this woman, Dr. Niehans went to the local slaughterhouse and dissected the parathyroid glands from a gestating sheep embryo, put them in a syringe and injected them into the woman's pectoral muscle. Within 48 hours, her blood calcium levels went up towards normal and the spasms went away. She lived another 30 years with that one shot of parathyroid gland. Unlike adults, fetal animals and fetal humans have very similar growth factors. Our tissues do not reject fetal cells from animals.

Once I learned about cell therapy and read Dr. Niehan's book, *Introduction to Cell Therapy*, I stopped using glandulars and started using the actual cells. I trust cell therapy and would not do anything with a client that I would not do on myself. My wife and I have taken them. Most people see the best improvement within two months, but that may be because the therapy is part of a comprehensive program that includes diet, psychological work, exercise and supplements. Cell therapy is another powerful tool but we cannot rely on it entirely.

What recommendations do you have for increasing libido in men and women?

Mucuna pruriens raises levels of dopamine, which increases libido in both men and women. It may also benefit those with Parkinson's. Another herb that enhances libido is damiana, but you may want to avoid it because it could be toxic. Also, those who exercise tend to have higher libidos.

We have heard that access to BHRT is threatened. What can people do about that?

In February 2008, the FDA sent letters to compounding pharmacists saying they should not use the words "bioidentical hormone therapy" since the agency had

not approved estriol. Over 100,000 responses were sent to Congress instead of the FDA (since the FDA does not run for election) and since then, the agency has done nothing to threaten BHRT. BHRT was then popularized by Oprah and a series of books by Suzanne Somers. The FDA knows the wave of public outrage would be much greater now than in 2008 if they were to go after BHRT. We should, however, stay vigilant and pay attention to organizations such as PPNF.

Dr. Wright, thank you for getting the word out to people about BHRT.



ABOUT THE AUTHOR

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