

14 - Bioidentical Hormones

BioBalance Podcast — Dr. Kathy Maupin interviewed [Brett Newcomb](#)

Recorded on November 4, 2010

Podcast published to the internet on November 17, 2010

This text published to [drkathymaupin.com](#) and [biobalancehealth.com](#) blog on November 19, 2010

KM: Today, Brett Newcomb and I will discuss bioidentical hormones, differences between them and why I prefer biobalance pellets.

BN: I'm a visual thinker, and it's sort of like the difference between inductive and deductive reasoning styles. As I understand it, traditional medical protocol is I get sick, I go to the doctor, they identify my symptoms and they try to backtrack to what went wrong and patch it or fix it. And where medicine seems to be going today—at least in my conversations with you the medicine that you practice seems to be moving towards a more holistic or preventative understanding of illness and particularly referencing your speciality which is the aging process. So one of the things you're trying to do is to look at how do we avoid symptom chasing and how do we set up protocols that look at the whole of the person and do the best job that we can do to keep them as recognizably and healthfully them as opposed to deteriorating shadows of themselves. In our conversations about that what you've talked about is a cascade of events of deterioration that seems to begin with changes in sex hormones. You had mentioned to me four of five cascading event sequences that began with that. And before we talk about delivery mechanisms for hormone replacement, maybe we should talk about why that is treatment that you use and why that's a goal you have. Could you speak to those cascading events?

KM: The aging process starts at a different time depending on your life and your genetics, but in general the average time is sometime after 40. That is when the sex hormones decrease. Testosterone goes first in women and then estrogen. In men, testosterone is their main hormone, that's the hormone that starts decreasing at 40. For men, the magic number is 400 total testosterone is when you get symptomatic, they don't feel well, they gain belly fat, they lose their sexual prowess.

BN: Do they get moody and pathetic.

KM: Yes, they get kind of moody, kind of girl-like. But it's not just the total testosterone for men, it's a free testosterone—free doesn't mean it doesn't cost anything, it means that it's free of binding—it's not bound to a protein. The way we store testosterone in the body is to have it bound to a protein which inactivates the testosterone. The protein blocks the testosterone from attaching to receptor sites. So when the protein is released from the testosterone, that's free testosterone. Then it's open to work.

So we look at free testosterone as a more crucial element and that should be over 129. That's our magic number for when most people are functional.

BN: So you can do a blood test and get a result back that tells you what the basic testosterone count is and what percentage of those are free testosterone. So when you evaluate a male patient, you are looking at what those ratios are in terms of general well being, positive energy, sense of self, those kinds of things. And you have data points that are visible and predictable.

KM: Yes I do.

BN: So then treatment would involve finding a delivery system that would restore those data points to not some idealized standard, but to whatever level is required by that individual to feel rejuvenated as themselves. Is that the goal?

KM: That's the goal. One of the problems with that goal is that we don't have a total and a free testosterone from when they were 30 or 29 when they felt very good.

BN: So it's going to have to be experiential, they're going to have to feel it and be able to articulate to you, "wow, I had this surge but it didn't last," or "I'm feeling consistently better, and more hopeful and energized and so on."

KM: It's the art and the science of it. The science is I need to get men over 400 and over 129, but some men used to be at 800 and at 250.

BN: And that wouldn't be good for everybody. You want to try to replicate what was my system.

KM: The way I do that is by talking to my male patients, asking them compared to others did they have a high sex drive, did they have a frequency of intercourse when they were first married, what was that like? And I'm trying to...

BN: I get that question all the time when couples come to see me, "What's normal?" Is once a week normal? Is 5 times a day normal? Is 50 times a month normal?

KM: I'm not sure there is a normal.

BN: And they get really frustrated with me when I give that answer. What's normal for you in terms of your desire curve and what your history has been, and in terms of what's palatable in your relationship with your partner because of overlapping compromises. Almost always there's an imbalance in couples. Couples find tolerance zones that make for harmony in their relationship.

KM: So maybe I should ask, "How many times do you want to have sex, not how many times did you have sex?" Not how many times were you successful. But I'm looking for that and also exercise levels, how often someone exercises because that tells me something about their general need for testosterone.

That's in the men. I also look at their lab. When I look at their pre-lab, I treat them, I'm trying to get to these goals for the testosterone. I also do post-lab to see if their cholesterol got better. Generally, when their testosterone is low, their cholesterol is high. I look at how their white cell count has improved because with low testosterone we have poor immunity. So their white cell count drops, I look at it and it usually comes back to normal when they have enough testosterone. So I'm looking for normalization of every other..

BN: What about the lipids?

KM: That's the cholesterol. Not triglycerides. That has to do with their diet. If they have a diet high in alcohol or carbohydrates triglycerides could be high even without testosterone.

BN: So it may not be as effective in counteracting adult onset diabetes?

KM: It is somewhat. Some of the studies that have come out in the last year show it does improve insulin resistance, but it doesn't improve your diet. I can't help that.

BN: So if I'm slamming down alcohol that's high in sugar content...

KM: That's not my job to follow you around and tell you not to drink. It's my patients responsibility to do their part.

BN: The post lab results will give you data points that measure all of those factors which then go to the holistic concept of global improvement in quality of life and quality of health.

KM: It's not just about sex. Are they thinking clearer. Men tend to get anxiety attacks when their testosterone drops. When women get a hot flash, men get anxiety attacks; those floods from the pituitary gland that's trying to make more testosterone.

BN: It's like the warning alarm is going off—the pituitary is sending it out—we get anxiety because it's not finding the free testosterone it uses in the appropriate way.

KM: There feedback system between the testicles and the pituitary. It shuts it down.

BN: Do you get the same kind of data points when you do blood tests on women?

KM: I'm measuring testosterone and estrogen. Progesterone is something that I don't usually measure. If someone has PMS, I treat them with natural progesterone, but if they're menopausal and they don't have a uterus, I don't need to use progesterone. It doesn't contribute in my patients to their well-being. With pellets, their outcomes are generally so good that I don't have to use progesterone unless the patient has a uterus —I'm just protecting that uterus from bleeding.

Women lose their testosterone first, usually forty to forty-five.

BN: In terms of symptoms of change, what does that look like? A woman who has lost her naturally-generated testosterone, how she experience herself? Would there be no desire for sex, would there be moodiness, high cholesterol, what would you look for?

KM: You hit most of them. Usually it's moody, lack of desire, but also lack of fantasies. Orgasms got much less intense or they disappear. Generally there's just not this sexual feeling. They feel like they're not sexual at all anymore.

BN: So the disposition to arousal or arouse-ability declines and that makes it harder to get aroused and harder to be responsive because the lights are on but nobody is home.

KM: Right. The neurotransmitters for that area of the brain are just not there, most sexual desire and response are in the brain.

BN: From what women tell you, is that a sudden change that they notice or is one of those gradual declines where it fades away and they would say that's a normal part of the aging process, I'm going through menopause and I'm getting older?

KM: It's slow, you almost don't... I had that when my ovaries were out. I didn't even notice. I didn't know exactly why I didn't care if my husband was home or not, like "Uh, what's he still doing here?" Really, and I have a lot of people saying that, "You know, I can do this by myself." And they feel like they don't need their spouse of this hormone being low.

BN: It's sort of an adaptive acceptance of their reality without awareness that it happened because of a change or a loss that could be remediated.

KM: They just think they got old. But they don't know it could be fixed and most doctors don't encourage them to have that fixed. They would encourage a man to take Cialis, but wouldn't encourage a woman to get her sex drive back for some reason.

Usually it's a slow change and that's where I say that's kind of like that change God gave us that we say "no" to sex after 40 because we're not very fertile and our eggs are old, we might have abnormal babies, and we're not going to live long enough with that 50-year lifespan. That was a long life up until the last 200 years, so you shouldn't have babies if you're not going to be able to take care of them. God's protecting us from having babies because we don't have a sex drive. It also releases the male to go find another female.

BN: I love that description because it's such a rational explanation that's assigned to interpret a sequence of physical events. I always say that man is not a rational animal—he's a rationalizing animal. I think that's what people do. That description you give is one that I hear in therapy as well. What you and the holistic anti-aging medical community are beginning to suggest is that you now have the data and a measurable

way to say physiology has changed and it can be repaired so that this doesn't have to be the natural sequence of events and we don't have to settle for this. We don't have to come up with rationalizations that help us accept change in reality. We can fight back. And we can fight back by getting bioidentical hormone replacement treatments That have an effective delivery system.

That brings us to what are the delivery systems and why are some effective and some are not or what is the effectiveness of one against the other?

KM: Let's go back to the tents. The center of the population was in the middle-east and most men would be gone if there was no sex drive or if they were turned down enough. So they leave the tent. The next step is progesterone which makes us have PMS. Not only do we not have a sex drive, we are crabby all the time. Only the hangers-on are going to stick with it and are still there when we hit menopause which is even worse—we just get exhausted and don't feel like doing anything. So who process shows a progression of how we go through the 40s and 50s, how I rationalize why people get divorced in their 40s, why that mid-life crisis happens. But men are also beginning in their late 40s to lose their testosterone and we get into a whole other stage.

Going back to why I use bioidentical hormones... I practiced OBGYN for over 25 years in private practice. Most hormone replacements that were oral just didn't work. Even when we didn't have anything else, most women would take Premarin or whatever we had then—Estrace—but it just didn't work. They didn't feel better because they didn't get testosterone.

BN: So that's because in the oral delivery mechanism the hormone had to be bound to some base that could deliver it; kind of like most aspirin is sugar.

KM: There's a first pass effect. Any hormone that's oral goes through your stomach, goes into your liver before it goes to the rest of your body. When it gets to the liver it's broken down into things that aren't just estrogen, but things you don't want like estrone—which is old lady estrogen that gives us belly-fat, long boobs, not pretty breasts, but old. It also makes our mind kind of foggy. We still get some estradiol which does help our brains, so it offsets one-another. Just by going through the liver and being changed into these other things, we have tons of side-effects, and we get a little bit of benefit, but it doesn't bring us back to who we were, and we don't get testosterone.

BN: So the oral delivery causes it not to stay together in it's optimal form to maximum benefit. It causes it to break down into all its various subsets, some of which are negative. So we get plusses and minuses. So other than oral, what are the delivery mechanisms?

KM: Then we developed vaginal creams, which just helped the vagina, they really didn't get absorbed into the body. That was the next enhancement. That was more of a lubrication. Then when bioidenticals came on the scene, we were just about getting to

normal patches that have estradiol in them but is not truly bioidentical. We were also getting pure estradiol creams that go on your arm, a transdermal patches or creams.

These are better than the oral—they don't get changed into so many different substances that are negative. They get changed into estrone a lot more readily than the pellets.

BN: That's a better, more complete absorption without the adverse breakdowns.

KM: But it has some. You also have to use the creams more than once daily—you have to remember to do it.

BN: Is there another option?

KM: The other bioidenticals are sublingual, you can use sublingual tablets that have estrogen or progesterone in them, but testosterone is not absorbed sublingually. My blood tests show that it just doesn't go through the mucosa of the mouth. Sublingual, you put it under your tongue, and that has to be dosed once or twice a day. It does get changed somewhat. It's not pure estrogen or pure progesterone when it hits your bloodstream but it's better than transdermals.

BN: All of the three that you talked about so far are modified as an artifact of absorption into the body. And the fourth method, the one you haven't gotten to...

KM: The fourth method are hormone pellets placed under the skin—subdermal placement and that's what I do because it's the best way to receive hormones.

BN: They don't have the absorption process deterioration or modification the other systems have.

KM: It is immediately absorbed into the bloodstream in the fat. The blood picks it up as you need it and it goes directly into the blood and to the target tissues. It crosses the blood-brain barrier very easily, which some of the others don't, so it helps migraines and makes your sex drive come back if you're using testosterone. It makes your feminine figure come back without making estrone—the old lady estrogen. It doesn't have that conversion that other have and it's also absorbed more purely.

BN: What about an intra-muscular injection of a liquid testosterone?

KM: None of those are pure testosterone. They are bound to other ingredients, going into the muscle they have to put something else with it so it delays the absorption in the muscle. It is not pure testosterone. We get a lot of people coming to us from places where they were given shots; women have full beards. They make a ton of DHT out of it and that's what makes the beard. Balding comes from DHT and there's a lot that comes from the IM that we don't have.

BN: Looking at delivery systems you have found one that you are medical comfortable using because it has minimal side effects, maximum absorption, in a consistent on-demand delivery system that replicates the natural system that has begun to break down through the aging process.

KM: That's right. We also balance other hormones: thyroid, adrenal, and we attend to pituitary problems. Most of these other things you'd have to see another doctor for if you were seeing someone who was replacing you estrogen, then we do that ourselves.