Stress, Hormones & Health (Part Two) Transcript

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Introduction to Stress Hormones and Health

So I'm going to talk to you about stress hormones and health. It's the very essence of what we do here, although we have a number of programs, heart, gastrointestinal.

But stress and hormones are really the bulk of the types of treatment that I do. Is your health in pieces? And these different pieces, if you can't see it, are your hormones, your stress, you're fitness, and your nutrition.

These are all important parts. And of course, emotional and spiritual. But just talking in terms of physiologic, the things that I deal with, these are the pieces.

So these our common symptoms that we see. Fatigue is our number one. People who are irritable, angry there is something that it's not very nice but when men's testosterone levels start to decline as they get older men will become irritable and angry and in anti-aging medicine we call it the grumpy old man syndrome because people get grumpy.

Common Symptoms of Hormone and Stress Imbalance

You may be depressed putting on the spare tire around the middle Sleep problems, having trouble concentrating, low libido or sex drive is a big one that we see.

Feeling overwhelmed by everyday tasks. So these are all common problems if you're wondering why people come here. This is lot of it. Fatigue is the number one.

And in your folders, if anybody wants to take notes, I gave you a little sheet to write notes on. What can you do about fatigue? When you see a doctor and you say I'm really fatigued and they do some testing and say everything looks okay, that's like bad news, right?

You don't want to hear that. You want hear maybe something's wrong that can be fixed. And eventually people go around and see lots of practitioners of all kinds with complaints of fatigue.

Everybody still thinks everything is okay on all their testing and evaluation, and sometimes people feel crazy. And this cartoon says it's only hypochondria, but it is a very virulent form.

The other thing that happens, and it happens especially to women, is that if you persist enough with what's bothering you and nobody can figure out a solution, they figure it must be in your head.

So you're not really tired, you are really depressed. Take an antidepressant. And that of course just brings a whole host of side effects and other problems and doesn't do anything about fatigue.

So I compared what we can do in functional medicine, what are the things we look at when we're trying to figure out why somebody's fatigued.

Why Fatigue Happens and What Conventional Medicine Misses

And I can tell you that when I was practicing gynecology and somebody came in to see me and said I'm tired, I would get those two tests. I'd look to if they were anemic, low blood.

Of course I saw a lot of women with heavy menstrual periods, so sometimes people did have anemia. And I would check their thyroid, and if that was okay, it was nothing I could do.

And most of the time, that all okay. I didn't have any place to refer somebody, I did not have ideas for them. In functional medicine, yeah, we still look at anemia, but we look the thyroid much differently.

Hormone decline very associated with fatigue. Stress will make you fatigued. What we call adrenal burnout when you've been stressed for a really long time you get this very profound fatigue that no matter how long you sleep you never feel refreshed.

And then other things that regular medicine never thinks about, food sensitivities, my gluten intolerance, things like that can give people brain fog and fatigue, migraine, headaches, not to mention all the bloating and stomach problems.

Some people have heavy metal toxicity. Either they have high exposures or they're not able to get rid of the metals they are exposed to. It poisons the enzyme systems throughout your body and you can't manufacture energy without good enzyme function.

So people feel fatigued among other things. Sometimes prescription medicine will make people feel fatigued. The statin medications are a key example. Fatigue, brain fog, and muscle pain.

Why? Because statins medications prevent you from making one of the most important components of your energy cycle in your cells. It's called coenzyme Q10.

People have probably heard of CoQ10 Statin drugs block your manufacture of CoQ10 and so the little parts of your cells where energy is made has to have Coq10, and if it doesn't have it, it does not make energy.

And that accounts for the muscle pain, because muscles have a lot of energy producing areas in muscle cells. Muscle cells move, so they need lots of the energy and when they are blocked from producing energy, you get muscle pains, fatigue and weakness.

autoimmune disorders. And the thing about auto immune problems is we actually can figure out the cause of a lot of them.

Functional Medicine Causes of Fatigue

I had ulcerative colitis, which is auto-immune. Maybe some of it was ulcative-colitis. Most of is was gluten. i had autoimmune thyroid problems called Hashimoto's.

and I have psoriasis, another autoimune problem. And when you eliminate gluten, when I eliminated gluten the psoriasis went away and the Hashimoto's, the antibody that I was making, levels went way down.

Not recognizing the causes of autoimmune leads people. Again, it's like the picture I showed you with the plant and the roots. If you only see the auto immune part up at the top, you load people up with anti-inflammatories, right?

Prednisone, very strong anti inflammatory, and never really look at what the root is. What's making somebody trigger this immune process? Sleep disorders, there is a sleep disorder that is hardly ever recognized called sleep disordered breathing and it happens almost completely in women and not the people that you think of with sleep apnea who are overweight with a thick short neck.

It occurs in slender women. And it is as devastating as sleep Apnea but nobody is aware of it to diagnose it and we have special ways of doing that. Conventional medicine, nothing else.

Now we're onto the second page of ideas and understanding why people can be fatigued. Environmental toxins are so damaging and it's a really, it is a bind because how do you stop breathing or you know, get away from, you buy a car and all the off gassing from the plastic in the car, we got a new car in December, still has the new cars smell.

I know I'm still smelling and inhaling all of that rubber and petroleum and plastic. Intestinal infections, yeast

overgrowth, tremendous cause of fatigue and brain fog.

Neurotransmitter decline, those important brain chemicals I was talking about, that can be a source of fatigue. And a lot are tied into poor digestion.

I had one of my very first patients, we did a neurotransmitter test on her, and she had really low levels of all neurottransmitters. Why? And she was very anxious.

She didn't make enough stomach acid, she couldn't break down her protein, which is how you get neurotransmitters. They're made in your intestine from the protein that you eat and break it down.

So understanding that a problem up here might have something to do with a stomach problem is the kind of thing that we're able to in functional medicine.

Hormones as Body Messengers

And I mentioned nutritional deficiencies and diet. We'll talk about diet a little later. Diet is really a huge part of staying healthy and feeling good.

Hormones are the messengers. Women have ovaries, men have testicles, they produce hormones, and they travel all over your body through your bloodstream to send messages.

Estrogen and testosterone, messages get sent to your brain. That's what makes women turn into women and men turn in to men. Besides our reproductive organs, estrogen receptors in our skin that keeps our skins looking healthier.

In our heart and blood vessels, there are receptors for these hormones. These hormones travel throughout our body, so they're messengers. They tell other parts of our bodies what to do.

And our hormones are optimal when we're at about 25 to 30 years old. Now, we used to say that. I'm not sure that even applies anymore because I am seeing 25-30 year olds who are hormonally depleted.

Probably a combination of toxins in the environment that interfere with estrogen activity. The food is very nutrient depleted, so we're not getting the minerals that, for example, zinc that you need to make testosterone.

So I'm seeing young people between 25 and 30. I never thought I would see when I started doing this kind of medicine, I thought it was going to be all menopausal women and men about the same age and older.

But anyhow, traditionally 25 to 30, our hormones are considered, they're optimal. And then they decline as we age. Women, in addition, have reproductive changes.

So, besides the age-related decline in hormones, we have menopause.

Hormone Decline Across Aging and Menopause

And the changes are leading up to menopus, which the average age is about 51. This is perimenopause last two to five years. It's really more like 15 years, it starts in your mid-30s and women know things start changing.

Nobody, if you go in and say something's changing, they'll go, oh it's fine, you're too young. But yes, It starts at our mid 30s, and then eventually ends up with menopausal around age 51. With men starting at age 30, testosterone starts declining, and it declines anywhere from 1% to 3% a year, which is a small amount, but not after you add up a number of years.

And by the time men are in their 60s to 70s, 50% of men have low testosterone. It affects your energy, it affects sexual function, your libido, cognitive, brain function.

your cardiovascular risk. Men with low testosterone are at increased risk of cardiovascular disease. And it's called andropause in men and menopause and women.

Some people call it manopaus when it happens to men. And then the issue of stress. Stress does huge damage to your health. And what happens when you get stressed, and this is part of an evolutionary change that happened, that developed in us, to protect us.

To protect from really severe danger. So the adrenal glands are right above the kidneys. This is a CT scan, kind of cross section. These are kidneys, the adrenals glands right on top, they make cortisol.

which is a very life-saving hormone unless you have too much of it for too long.

Stress, Cortisol, and Long-Term Health Damage

In prehistoric times, we would be under threat of an animal, a predator, going to eat us. And so what happens when this kind of situation arises is your adrenal glands pump out a huge surge of cortisol.

It's life-saving. Why? Because it mobilizes sugar. And it's not good to eat lots of sugar, but let me tell you, if you need to run away from a predator, you'd need mobilization of the sugar so that your muscles have energy and fuel, and your brain does, too.

But these situations were meant to last a short time. You'd run from predator climatary, get in a cave, then it was over. And then your cortisol levels came back down and your body repaired.

What happens with cortisol is everything gets put on hold. All of your intestinal function, your reproductive function. Everything gets on put hold so you can save your own life.

all the blood goes to your muscles and to you heart to keep pumping and pump it to muscles. If you've eaten, nothing happens to the food. It does not get digested when you're stressed because the And so this is a life-saving physiologic response.

But it's not life saving when it goes on chronically all the time. So we don't get stressed from fear of a predator and then have it be over. We're stressed all of the times.

And our body doesn't know the difference between our boss yells at us, we've got a horrible deadline, and a predator is going to come after us, our cortisol levels go way up.

And high cortisol level shrink your brain, higher risk for Alzheimer's, increase your risk of cancer, and it's very inflammatory. It's inflammatory and inflammation is why people get heart disease and cancer and Alzheimer.

Those are inflammatory chronic diseases. And in addition, like I said, you get weight gain, particularly the spare tire, moody, and it depletes your hormones.

And I know you can't see this slide, but let me just say, this is how your hormone get made. The ones over here, where the lady's smiling, are what are called your feel-good hormones, And down here are the cortisol that you pump out when you're scared of a tiger.

When this pathway is in effect, when you're stressed, this one gets cut off and you don't make as much of your feel-good hormones. You don' t feel as good when your stressed.

Women's menstrual periods get messed up because they don t make enough progesterone. People lose their libido when they get stressed they're not making as testosterone and estrogen.

So stress takes away your feel-good, keep you healthy hormones because your body thinks you're going to die and it's got to do something about it.