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*\* \* \* Intro Music \* \* \**

Welcome to Supplementing Health, a podcast presented by Advanced Orthomolecular Research. We are all about applying evidence based and effective dietary lifestyle and natural health product strategies for your optimal health. In each episode, we will feature very engaging clinicians and experts from the world of functional and naturopathic medicine to help achieve our mission to empower people to lead their best lives naturally.

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[01:10] *Cassy Price:* Welcome back to Supplementing Health. This week I am chatting with Dr. Pam Wilson about sources of stress, the affects it has your health and tools we can use to manage the impact. Welcome Dr. Wilson. Thanks for joining me today.

[01:22] *Dr. Pam Wilson:* Cassy, thank you very much for inviting me. I am very excited to be able to work with AOR. You are a great company, and this is a great opportunity for all of us to educate the consumers.

[01:32] *Cassy Price:* Agreed. What the body recognises as stress nowadays is not necessarily what we inherently think of as stress, right? There are so many new forms of stress that are impacting us day to day, like our phones and our technology and the traffic that we drive in day to day and all of these other little things that historically wouldn't be labelled as stress. What are some of these other hidden sources of stress that our body can be dealing with that we would necessarily think of right off the bat?

[02:07] *Dr. Pam Wilson:* That is a great place to start because if we don't understand where stresses are in our lives, we don't know how to modify them. When we look at stress it can actually be bad or negative things, or it can be good things as well. That is often where they can hide. As you said, now we have a lot more stress with technology and screen time and phones etc. Stress has always been looked at as not enough hours in the day, job stress, family illness but the good things like planning your wedding, starting your family, a promotion at work, moving your home. These are good things, but they are also going to trigger this physiological stress response in the human body. We have to step back and identify how our body is reacting. Sometimes our body will tell us where that hidden stress is. We have to look and see that it is things that are negative and also some things that are positive. They can both impact us.

[03:16] *Cassy Price:* Absolutely. I think it is good to take that inventory when you are feeling stress and see what could be playing into it. Science has linked chronic stress to a number of illnesses throughout different studies. Can you share how that unmanaged stress plays into potential illness?

[03:37] *Dr. Pam Wilson:* Yes. we know that the body wants to hang out in this place of balance or harmony. It known as homeostasis. We also know that when there is chronic stress in our bodies it has a cost to our energy load and our metabolism. This chronic stress and the cost it has to our body

and the depleting of our body, it is known as an allostatic load. We have to know that if we have constant ongoing stresses and this stress response is kicking in to manage them it is going to deplete our metabolic reserves. A really good example is that in the stress response, the fight or flight response environment, our body is going to release a lot of glucose from body tissues to give us the fuel that is going to be demanded for that fight or flight or that stress environment. When this goes on and on and our body then starts to decrease our insulin's sensitivity to the glucose so we can continue to get that fuel to our body for fight or flight. This is often one of the first places that we step into cardiometabolic syndrome. It might be more of a hypoglycaemia. People are feeling they have got a little brain fog, they are hangry if they haven't eaten in the last four or five hours. Absolutely, the ongoing stress if it is unmanaged, we know that physiologically it leads to change in the body and chronic illness.

[05:19] *Cassy Price*: I know on your website you talk about your three pillars of resilience which are eating well, moving well and thinking well. Does stress management tie into all three of those pillars or are there specific pillars that focus more on that stress management piece compared to others?

[05:38] *Dr. Pam Wilson*: It really is all three and it depends on the individual walking into my office and where I might put a higher priority. As a general rule, if we are not eating well, if we are not supplying our tissues with nutrition so they can't continue to deal with the stresses of life and if we are eating the wrong foods, we are going to start creating inflammation in our body and in our tissues and that affects our body's ability to handle to stress response. Movement, it is just so critical. We know that exercise when done at appropriate levels, it can help our body manage and deal with stress. I'll have patients come into me that are training for ultramarathons or iron man triathlons and if somebody pushes too hard based on all of the other stresses in their life, we can see that too much movement will also be too much of a stressor. Proper movement and proper exercise is something that I always think we have to pay attention to. Our thoughts, our thoughts actually affect the cellular chemistry in our bodies. We always have to think about what we are thinking about because if we don't, we can have this stress be unmanaged and unresolved and ongoing. As we just said it leads to chronic illness. It really is all three areas.

[07:09] *Cassy Price*: Does it become more difficult to undo the effects of stress the longer that we are poorly managing it or the longer that we are exposed to excessive stress levels?

[07:21] *Dr. Pam Wilson*: I believe yes. I see in my practice that it depends on the mindset of the individual, where they are in not just the quantity and how much of this stress load you are getting but what their coping strategies are. If somebody comes into my office or we have somebody who has stress management protocols, they meditate, they do exercise, we usually can help them get to a place of health a lot faster. I think that there are so many people that have lost hope and have that attitude of "my life is so busy, I don't feel well, I have illness, I just don't see a way out of this." If their mental approach is at that level then it is going to be harder to help them manage the stress so it is not necessarily the duration of the stress I think it is also the individuals ability to handle recognise and cope with the stress. It is kind of a whole package not just necessarily time.

[08:36] *Cassy Price*: You were talking about the mental piece of it or the cognitive piece, you talk about identity narratives, can you elaborate on those and speak to the ways that your self-talk contributes to stress?

[08:53] *Dr. Pam Wilson*: Yes, that is kind of moving on from the last topic we discussed. Identity narratives is basically this concept of us reconstructing our past based on our perception of it and our perceived present how we are interacting and feeling about now and then it is like how are we

imagining how our future might look like. If someone has self-talk that is very negative, “I never can get it right. I never can lose weight. I am always sick. I am always in pain. I don’t have any strategies to deal with all that is going on.” That person is going to perceive right now that there is no hope for their imagined future. I want to make sure that I am going to step back and say, “what is your self-talk?” I will encourage them to talk in the present as they are visualising the future. It is the old self talk of the mantras; I am healthy, I am strong, I am fit, I can handle this. If you say it in the present as you are handling it your brain literally rewires itself and says “okay, we can handle this. I am good. Let’s go.” This is what is so exciting about the recent understanding of epigenetics and quantum physics. We literally can see and understand and measure how our brain and our cellular chemistry changes based on our story and our narrative and how we perceive ourselves. It is important to work on that aspect of our mental emotional health. It is one of the areas where we can actually intervene with stress management.

[10:58] *Cassy Price*: Can excessive positivity, sometimes labelled as ‘toxic positivity’, have a stressing effect in the body? I know here we are talking about that positive self-talk. Can it go too far in the positive direction?

[11:14] *Dr. Pam Wilson*: That is a really interesting question. I would be primarily giving my opinion on this. I haven’t read any studies on that but after 32 years in practice I would say that positive is always the side we want to drift towards however if someone is in the state of denial and not stepping back and developing strategies to deal with the stress and not acknowledging that it does exist, my opinion would be that you could go too far in that direction. There has to be that balance and that homeostasis.

[11:51] *Cassy Price*: Are there different coping strategies that you would give to someone based on age or life stage or is it the same set of potential tools for everyone?

[12:03] *Dr. Pam Wilson*: The tools are very similar but the tool that we choose at any particular point in time is going to be based on where that person is on their stress scale or whether they are just so burnt out that there is physiologically and chronic illness or whether they are on more earlier stages and they are not sleeping well, and their cortisol levels are too high. It is really a matter of looking at each patient individually and looking at where they need to start.

[12:42] *Cassy Price*: Speaking of the physiological piece, one of the effects of stress that we know of can be on cognition and lots of people refer to brain fog and those sorts of things. What are some of those effects speaking more in physiological terms that occur when it comes to cognition and memory?

[13:08] *Dr. Pam Wilson*: Basically, what happens is that when we are in the stress response we are in that fight or flight mode. Physiologically we know that certain things happen. Some of the more prevalent concepts is that our eyes are going to dilate so we can see to fight or flight. We are going to have more energy, from the glucose that I spoke about going to the muscles, so we can run or defend ourselves. One of the things that happens is that the brain is shut down from higher executive functions. It is basically survival mode. When the brain goes into the survival mode and the chemistry of our body goes into that sympathetic fight or flight which is not at that point wired to make cognitive decisions or higher executive functions and hold onto memory.

[14:05] *Cassy Price*: With those physiological changes, how can unresolved stress be linked to chronic pain? Usually if you are in fight or flight, you are not really feeling any of that sort of stuff, right, if that adrenaline jumps so you can go and lift a car or run a marathon or whatever, right?

[14:27] *Dr. Pam Wilson:* Just as you said, when we are in that HPA access or that stress response, sympathetic fight or flight, we typically don't feel pain quite so much. There is a difference between us burning off the adrenaline and the epinephrin by fighting or by fleeing. When we are sitting at our desk and we are just dealing with the ongoing mental emotional stresses of life, we just keep in this loop. At that point, the body does perceive that we are not really running, and we are not defending ourselves, so it is a low level disfunction and pain can breakthrough. It doesn't necessarily stop us from feeling muscle skeletal body type pain.

[15:33] *Cassy Price:* How can someone know if they suffering from that HPA dysfunction?

[15:41] *Dr. Pam Wilson:* I give a questionnaire in my office, and it will red flag how many of the things somebody may be having that are directly related to the stress reaction. I would say there are four primary areas that I am looking to evaluate. One is how are you sleeping. It is so important. If somebody is not sleeping at seven or eight hours a day or if they can't go to sleep or if they wake up during the night and they can't get back to sleep and their mind is constantly going, these cortisol levels are imbalanced. Poor sleep is one of the first things that indicates that we have an HPA dysfunction or a stress reaction that is unresolved. The other thing is that blood sugar imbalance. If somebody does have that brain fog when they can't go more than four or five hours without having some food without getting a headache or that hangry feeling that they haven't had food, that blood sugar imbalance is often the indication that there is a stress response for unresolved stress going on. It is important to say that perceived stress is actually a stressor. That mental emotional response to what one person might perceive as not a big deal but you if it is a problem and that perceived stress is definitely going to create a reaction. I will ask questions about family health and loved ones and work environment to see if there might be that hidden stressor that they have not identified that is affecting the physiologically. Chronic pain in itself can be that first indication of somebody's stress. That will often help us understand that there is an underlying inflammatory response going on. If we have unresolved inflammation because of poor diet or injury that is a sign that the stress reaction or the stress response is being overloaded.

[18:05] *Cassy Price:* If someone is suffering from a HPA dysfunction can that be corrected without clinical support or generally you need to work with your doctor to get that resolved?

[18:16] *Dr. Pam Wilson:* Again, I think it is the level of stress both the quality and the perceived level of stress and how long it has been going on and the individuals' coping strategies. I think we have to look at all of those variables. There are a lot of online resources right now and so if somebody has low level stress and they feel it and they perceive it and they are not feeling well, they can probably go online and they can google the information and they can have some strategies that they can try and that may work for an individual based on where they are. When it gets to the point that it is more severe, and it has been ongoing for long periods of time I believe that that individual needs not just information but they need a strategy and that is where the clinician steps in and really can do some blood testing or saliva testing or these more detailed questionnaires to try to figure out where is the high impact area for us to intervene and help this person resolve it. Not everyone may need clinical support, but I think it is certainly helpful and beneficial.

[19:40] *Cassy Price:* You were talking about how exercise is good tool when you were talking about your three pillars there but that it can also end up being a form of stress. How do you know at which point you have gone too far when it comes to that exercise piece?

[20:02] *Dr. Pam Wilson:* Once again it is individual. It depends on that person's fitness level. It depends on what kind of an exercise load they can tolerate to begin with. Once the additional stress

reaction or response kicks in because of other stressors, because exercise is itself recognised as a physical stressor. If you are exercising it mobilises that sympathetic stress response and when the exercise is done the body flips into that recovery place of para-physiological rest and relaxation and recovery. If somebody doesn't have a lot of stress in their life, if their family environment is good, if everyone is healthy, if their job is one that they enjoy and there is not a lot of additional stress there and they have been exercising for very long periods of time at certain levels that stress is going to be positive. It is going to be beneficial. It is not going to be an overload because when it is appropriate levels it literally will reduce our stress hormones like adrenaline and cortisol because it will consume them in the muscular contraction of exercise. It releases endorphins and they are basically a natural pain killer, and they are mood elevators. If I have that individual who is working a 70–80-hour work week, a lot of responsibility both at work and at home and they are trying to 'burn off that stress' if you will by exercising seven days a week, I know that person is draining their metabolic reserves. We only have a cauldron of so much at any point in time that we can draw upon in order to manage stress. I talked about that allopathic load that is cost to the body in dealing with the stress. If somebody is just bleeding that reserve, so to say, if they put too much exercise on top of it, they have tipped the scale against themselves. It is based on the individual.

[22:23] *Cassy Price*: Sometimes people can become essentially addicted to some of these coping mechanisms like exercise or like screen time. People try and 'unwind' with their favourite series of Netflix or whatever but those aren't necessarily healthy coping mechanisms and can become addictive when done in excess. What are some of the steps that someone could take to address this if they have gotten to that point where they are either on the verge of addiction or using it as a crutch?

[22:58] *Dr. Pam Wilson*: I think that too much of a good thing or an okay thing like screen time or exercise it is a matter of becoming self-aware. I talk to my patients about my AIM principle that at any moment in time they want to assess an environment, assess a situation, set an intention and then move towards it. The AIM. I ask people to step back and to evaluate how much exercise is too much because most people can figure that out. If they find that they are not able to step back and assess the environment and make healthier decisions, then it is probably time for them to sit down with a professional or talk therapy or somebody to help them manage that. Sometimes I find in my practice if I help my patients be aware of what those boundaries are and try to give them parameters of what is too much then most people can step back and go "oh, okay, that is too much screen time." "Maybe I am hurting myself by exercising too much." Now on the flip side of that coin if someone is stepping into other coping strategies like alcohol or drugs to try and numb themselves from dealing with the stress that individual in my opinion really needs to seek professional help quickly. They want to make sure that we don't end up with addictions that are going in the direction of really compromising our lives.

[24:50] *Cassy Price*: How much screen time should people be getting? When does it become too much, in your opinion?

[25:01] *Dr. Pam Wilson*: We talk about screen time as an environmental stressor. That particular stressor, the data is really just starting to come in and compile. There are different thoughts on this, but I think the general concession is that outside of your work environment about two hours a day is the maximum screen time relative to computer, tv, gaming, phone etc. We talk about probably staying at least an hour away from bedtime so all of the stimulation of the screen and activation of the eye and the retina and it raises blood sugar levels and blood pressure when in excess, we want to make sure those things are calming down before we go to bed. Again, it is very individual. I find that patients who work at computer screens all day long as some people working now with multiple

computer screens who are virtually as supposed to sitting in a conference room and interacting with people. I am asking my patients that live on the computer all day long to consider less than two hours of screen time at the end of the day is probably something to think about.

[26:26] *Cassy Price*: That makes sense. I think too especially over the last couple of years with people working from home and whatnot, even those who maybe were less on the computer are now more so than previously which definitely has an impact as well. I really appreciate you taking the time to chat with me today. If our listeners want to learn from you, they can go to your website [www.drpamwilson.com](http://www.drpamwilson.com), correct?

[26:54] *Dr. Pam Wilson*: That is correct.

[26:57] *Cassy Price*: They can also find you on Instagram?

[27:01] *Dr. Pam Wilson*: Yes. I am on Instagram and on Facebook @drpambewell is the link. It has just been a pleasure speaking with you and it is so nice to be in these podcast environments where it is open conversation and trying to give people information to not only have better information but hopefully developing some strategies to get into a better place in life.

*\* \* \* Outro Music \* \* \**

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