



## Conscious Life presents

### How Your Nervous System Impacts Your Hormones

Alex Howard

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#### **[00:00:09] Alex Howard**

Hi, I'm Alex Howard and welcome to this session where we're going to be exploring how your nervous system impacts your hormones. We've all heard so much about how stress impacts us. The word trauma has become a big buzzword in recent years. There's lots of people talking about mind-body medicine, but how does all of this relate to your hormones? If we're suffering with imbalances in our hormones, that's a real physical lived experience.

How can it be the case that things that have happened in the past or things that have impacted us in our mind and our emotions, how can that be causing physical impacts in our body? My hope is that through this session we're going to answer those questions together.

Now to say a few words about myself and why I'm sitting here talking about this topic. In addition to being the founder and CEO of Conscious Life, which is the company which is producing and creating this online conference, I'm also the founder and chairman of the Optimum Health Clinic. It's one of the world's leading integrative medicine clinics specializing in fatigue-related conditions, trauma, anxiety, sleep issues, hormones, digestive issues and so on.

And for the last 20 years, we have been using a combined Therapeutic Coaching, which is a combination of psychotherapeutic principles with a coaching solution-based methodology. So a Therapeutic Coaching approach with a Therapeutic Nutrition approach. That's an approach using a Functional Medicine-informed approach to nutritional therapy.

I came to this work because I spent seven years during my... From my mid-teens to my early 20s suffering from ME, otherwise known as Chronic Fatigue Syndrome. And what was really important for me along that journey was the realization that when we're managing complex chronic illnesses, there is no one answer.

The amount of times I went and saw different medical experts that had the answer that turned out not to be the answer. I became almost allergic to anyone that claims to have the answer to any complex area. But there are many answers. There are different stages to the healing journey. There are different systems impacting the body, different subtypes and predisposing factors that we may have.

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And so along the way, my great passion became decoding and making sense of all of these different jigsaw pieces and putting it together in a way which is hopefully helpful for people on their own healing paths. And so in this session, my aim, as I say, is to unpack the relationship between childhood trauma, what happens in our nervous system, and how that impacts upon our hormones.

So let's start with a question. What is trauma? People will often answer this question with saying, well, trauma is traumatic events. Being in a war zone or having something horrific happen to us. A physical assault or sexual abuse or something like that. Those things obviously are traumatic, but they're not the only things that are traumatic.

A sister conference to this Hormone Super Conference is our Trauma Super Conference. We've had over, I think, nearly a million people. Over a million people have attended our Trauma Super Conference over the first four iterations of that event. And I've asked this question, "What is trauma?" to well over 100 people through those... Must be probably 200 people through that interview cycle.

World-leading experts on trauma, people like Dr Gabor Maté, Dr Peter Levine, Professor Stephen Porges and many others. So when it came to writing my most recent book, which is called *It's Not Your Fault: Why Childhood Trauma Shapes You and How To Break Free*, I felt some pressure to answer this question well.

What I realized is trauma is not just the events. Trauma is what happens in our nervous system and the outcomes of that in our lives. To break this down a bit more, I came up with what I call the ECHO Model Of Trauma, because, in a way, what happens to us in childhood, it echoes. It's like it happens, but it ripples, it echoes through our lives. But as well as being a description of the experience, ECHO is also an acronym of four stages that happen with trauma.

So the first is the events. We're going to go through these in a little bit of detail. The first is the events, the what happens. The second, the C of ECHO, is the context. We all have three core emotional needs, and when those needs are not met, we don't develop the resilience that we need to meet the challenges of life. When the events are overwhelming or when those core emotional needs are not met, there is a shift in the homeostasis, in the balance of our nervous system.

When this shifts, it has outcomes in our body and in our lives. One of these outcomes is the impact upon our hormones. So often people are going to see medical professionals to understand and have intervention to address hormones without looking at why they've gone out of balance in the first place. Dysregulated hormones, in a way, is a symptom of something else that's going on in the system.

A dysregulated nervous system may not be the only piece. For some people, it's the most important piece. For other people, it's a piece. But it's one of the primary reasons for many of us why our hormones can become out of balance.

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So let's look at the events of trauma. Yes, there are obviously traumatic things as we've touched on. In fact, there's an amazing body of research looking at Adverse Childhood Experiences. Things like physical abuse, sexual abuse, childhood emotional neglect, growing up around parents that had addictions or a parent that's been incarcerated in prison. Those are what we'd call overt traumas. They are obviously traumatic experiences.

Sometimes the things that shape us the most are more covert, and are more subtle. Sometimes we're so normalized to those things, we don't even identify or recognize them at the time, or even hindsight as traumas.

Let's say one day in the classroom at school, you got super-excited, you put your hand up to answer a question. You got it wrong. And the class laughed and maybe the teacher laughed. You went home and you felt sad, you felt shamed, you felt judged. What you wanted and what you needed was to feel the reassurance, the kindness, the softness of your parents, and to be told that you were allowed. You were welcomed to just feel the way that you felt.

But maybe what happened is that your parents were super-busy. Maybe they'd learnt that feeling emotions is not a good thing. So they rewarded you for shutting down how you felt. In fact, maybe at bedtime they said, "Oh, well done for being such a big boy or big girl. And don't let the silly people make you feel bad".

But they shamed you for the feelings. Maybe this happened lots of times. And then what you learned is that feelings are bad. You get more love when you hide how you feel, not when you express how you feel. And this taught you a whole bunch of things in your life about feelings, emotions, relationships and so on.

It's an example of a covert trauma. Maybe a subtle event, but we learn fundamental things from these experiences. The events of trauma can be one-offs. They can happen many times, they can happen in childhood, they can happen in adulthood. But the events happen, the context within which the events happen is really important. Context is everything.

Two people can experience the same events, but have different outcomes in their life. Our emotional resilience is determined by our three core emotional needs being met. These are the need for safety. As a small child, we get this through co-regulation of our nervous system with our caregivers. Huge amounts of research that shows distressed child, soothed by parent. They're calm, it calms the child.

When we didn't get that co-regulation in the way that we needed, we often then didn't learn how to self-regulate. How when we get impacted, knocked by life, to bring ourselves back to a place of safety.

We then have the core emotional need of love. This is not love for what we do or love for what we achieve. It's love for who we are as we are. It's one of the key foundations of growing healthy self-esteem. When we don't get this need met, or when we're taught that love is tied to action and what we do, it has all kinds of impacts on how we develop. In fact, many of the patterns of behavior we struggle with in life are attempts to try to meet this need in unhealthy ways.

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Then we have the core emotional need of boundaries. That's the ability to say yes and no to other people, but also to ourselves. Now, the core emotional need of boundaries is particularly important for developing our strength. We have something to push against. Something that's safe, predictable, that we learn from, that we grow our capacity and our strength in doing that. And we need our strength to meet the challenges of our lives.

So we have the events. We then have the context. These three core emotional needs. If these needs are met, we can handle most of what life throws at us. As adults, we are no longer dependent upon others to meet these needs for us. We can learn to cultivate these resources and capacities inside of ourselves.

So, going back to our model, we have the events, we have the context, our three core emotional needs. If the events are overwhelming and/or the core emotional needs are not met, we have this shift in the homeostasis of our nervous system. Homeostasis means the same, safe, stable, consistent. If that's being in a calm, relaxed, healing state, over time that can become dysregulated.

Now, to understand the impacts of trauma on our nervous system, we need to understand two different types of stress: acute stress and chronic stress. Acute stress. Let's say you and I are walking down the street here in London, and we don't hear the big red electric London bus that's coming towards us, because it's electric. And then one of us notices it and screams or grabs the other one, and we jump out of the way.

In that moment, our survival is dependent upon our stress hormones, particularly adrenaline and cortisol. We get a big hit of adrenaline and cortisol, which allows us to respond to that immediate threat and danger. And so our blood flow flows to our arms and legs, and so we can respond. Our mind starts to run faster, we start to get a sense of alertness and reaction. We need that because we're going to do, in that moment, one of three things.

We're going to fight the threat. Not a great idea with a bus. We're going to flight, we're going to run away, or we're going to freeze, and then maybe it misses us and it goes past us. Whichever of these three things we do, we need a large amount of energy immediately in that moment. This is the healthy utilization of our stress hormones for acute stress.

The second type of stress is chronic stress. It's like that bus is chasing us all of the time. We are constantly releasing adrenaline and cortisol and other stress hormones. We are getting normalized to being in a dysregulated state. We'll talk in a moment about all of these, of the outcomes this can have on our physical body, our mental body, and our emotional body.

When we get normalized to being in a state of chronic stress, we develop what I call a maladaptive stress response. A maladaptive stress response is a chronic state of sympathetic nervous system activation when in a safe environment.

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We need those stress hormones when that bus is coming towards us. It's the same response we'd have had thousands of years ago with the saber-toothed tiger hunting us. We can fight the tiger. We can flight and run away, or we can freeze. By the way, that freeze state takes an enormous amount of energy to sustain it. Like, the whole system sort of locks up and shuts down.

A maladaptive stress response means that the homeostasis, the balance of our nervous system, has moved, and we get stuck. We get normalized to that state. We often don't realize it's happening.

I remember in the early years of the Optimal Health Clinic, I'd be explaining maladaptive stress response to people, particularly in our work with complex fatigue-related conditions. And people would say "What you're saying makes complete sense, but it's not true for me". And yet they would be so ramped up in their nervous system that as an empathetic person, I would be feeling a sense of activation in my own system.

And so to really start to reset the nervous system, the first thing is we have to be aware of what's happening. We have to recognize it. If you can see it, you don't have to be it. So, just going back to our model again, we have the events, we have the context, the three core emotional needs. We then have the homeostatic shift in our nervous system.

We then have the outcomes in our lives. The outcome of trauma is we normalize to a world which is not healthy or optimum. We don't develop the three core emotional needs we need to heal. And there are a whole bunch of outcomes in our mental, emotional and physical body.

Now, what's also interesting is each of these areas has a crossover with our hormones. One of the outcomes of a maladaptive stress response is anxiety. Because we're in that constant state of fight or flight. Our system is constantly activated trying to keep us safe. But in the way that it's trying to keep us safe, it's actually depleting our energy and resources.

We start to see, by the way, when our stress hormones are over-activated, it impacts upon our sex hormones, it impacts upon our thyroid hormones. Our whole hypothalamus and pituitary and adrenal axis starts to become dysregulated. It starts to become out of balance.

Same thing happens with sleep. Psychologically, sleep is a natural state. It's a natural state of surrender and letting go. If we don't feel safe. If our nervous system is activated, it's hard to get to sleep. A couple of ways to explain this. Firstly, just going back to our saber-toothed tiger hunting us. If we are in physical danger, it's not safe to sleep because the tiger may eat us.

Our nervous system doesn't distinguish between a perceived danger and a real danger. That's why you can anticipate something that you're afraid of and your system starts to become activated.

Another way to understand sleep. Our brain has four types of brainwave patterns: beta, alpha, theta and delta. When we are in a state of excess beta, our brain is beta for busy. Our brain is active and busy. We will have less alpha. Alpha is a state of quiet, relaxed awareness. When we have less quiet, relaxed awareness, then we have to fuel this busyness. How do we do that? With excessive stress hormones.

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We then have... And this comes to the sleep bit. When it comes to sleeping at night, if we have an excess of beta during the day, we will tend to have more theta at night. Theta is dreaming sleep. That's why you can go to sleep and wake up feeling exhausted because you've not been having delta sleep, which is deep sleep.

It's in delta sleep, we release things like growth hormone. It's where we are balancing the various bodily systems. And so when we are in a constant state of dysregulation, our mind's busier. Too much beta during the day, not enough alpha. Too much theta, too much dreamy sleep, not enough delta sleep. Also, of course, can then be a cause of fatigue.

Impacts on our health in all kinds of ways. When we are in a dysregulated state, another way of thinking about it, for our body to heal, it has to be in a healing state. When we are in a maladaptive stress response, all of the energy is going into fueling that. That energy is not available for healing and bringing balance.

Outcomes in our relationships. To be in a healthy, connected relationship, we need to be able to feel safe in ourselves. Addictions. One of the primary things going on in addiction is people trying to self-regulate a dysregulated nervous system.

Depression. People often think of depression as being sad all of the time. My observation of people that are suffering with depression, it's not that they feel sad, it's that they don't feel. There's a numbness, there's a shutdown. That's that freeze response. The system has got stuck in a frozen shutdown place.

So let's track this back to hormones. Events have happened in childhood. They've also happened in adulthood. Some of these events have happened literally decades ago. We may have not had those three core emotional needs met in the way that we needed.

Our nervous system became dysregulated. It's likely we became highly normalized to that dysregulated nervous system. There are then outcomes in our mental body. Anxiety and so on. In our emotional body. Relationships and so on. And in our physical body. Fatigue conditions, complex chronic illnesses. But of course, also hormone imbalances.

To rebalance our hormones. Yes, we may well need to work directly on the level of hormones. We may need to look at things like food, blood sugar, and potentially bioidentical hormones. A bunch of ways we may need to work with what's happening physically. But there's two critical ways that we also need to understand the impacts of trauma on our hormones.

The first is what we've been talking about, that the reason why our hormones are dysregulated in the first place may well be because of the unhealed impacts of childhood trauma. But the second is, the way that we respond to what's happening is often informed by the same trauma.

So let's say that you've got used to living with imbalanced hormones. Maybe it's been exacerbated by menopause. If you're a man, maybe it's that you've reached middle age and you're suffering from low testosterone. Things that may well need to be addressed directly. But the way that we

respond to those symptoms and those experiences also is determined by those childhood experiences.

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Let's say that you learned that the way that you meet that core emotional need of love is by being an achiever. You have to be the best. You have to be the top. You're constantly challenging and pushing yourself to constantly achieve in the things that you're trying to do. And in doing that, you're constantly pushing beyond your capacities and your limits.

And then you start to notice that your hormones are out of balance and you're struggling. And maybe you wouldn't have labeled it as hormones out of balance. You just don't feel great. The healthy response would be to really listen, to take rest, to investigate what's happening. But maybe your response was to push through because you learned that the way you get love is by driving and pushing.

Or maybe what you learned was that other people's needs are always more important than yours. And if you take care of others, then you'll feel safe. And that's the way that you learn to meet that core emotional need of safety. And so when it comes to healing the impacts of trauma, when it comes to balancing our hormones, we can't just work with the physical impacts. We also have to work with the nervous system.

Otherwise we're going to keep being out of balance, or we can bring balance and we're going to have more imbalance. We've got to learn to calm, to reset what's happening with our nervous system. We've got to learn to change, to break the underlying habits of thinking, behavior and so on, which are perpetuating the cycle.

So let's then talk a little bit about how we RESET the nervous system. We talked a bit earlier. I was giving the example of people coming into the clinic and not recognizing the dysregulation. So we firstly need to recognize what's happening. Remember I said, if you can see it, you don't have to be it.

So if we can recognize that the system is dysregulated, we then need to examine, well, why? What are the beliefs, the habits, that achiever pattern, that helper pattern. What are the ways that it became dysregulated in the first place? But how are we continuing that dysregulation now?

And if we can understand and examine those patterns, we can go to the next step, which is to stop them. There are two parts to this. The first is to be able to recognize, examine and stop, and to learn to retrain what's happening in our system. The second is to learn how to be in a calmer state. Effectively if we go back to that core emotional need of safety, how do we learn how to self-regulate our nervous system? Meditation, breathwork, yoga, Tai Chi, Qigong and so on. Practices to learn to settle and reset the system.

The next stage, if we can start to calm the system, we can start to work with our emotions. We all have a big black box full, or big black sack full, of all the emotions and feelings we've not felt through our lives. We shove them in there, we go around ever so often they kind of explode and leak out.

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As we calm our system, we get closer to feeling. In fact, one of the reasons why the system gets activated in the first place is it's a way to escape those feelings from those events of trauma.

As we work to calm the system, as we work to settle what's happening, we can really start to feel. We can process that emotional history and then we really can be in a calm, healing state. Then ultimately the final step, the T of RESET is to transform our relationship with ourselves. To learn how to meet those three core emotional needs. And as we do that work, it brings back the balance to your hormones.

You may well still need to work on the physical impacts: diet, supplements, bioidentical hormones, all the amazing things that myself, Meagan and Anu have been talking to experts about in this conference. But if we only do those things and we don't also deal with this piece, what we're often finding is we're on a still slowly sinking ship because the driving of the... Or at least part of the driving at least of the imbalance is still there.

So after this conference, we're going to tell you more about a twelve-week online coaching program called the RESET Program, which you can join to learn how to reset your nervous system. But at this point, I just wanted you to have this context on this piece of the jigsaw as you're watching and enjoying the rest of the interviews in this conference. Super-happy you're here.

We're super-proud of the event that we've created. Thank you for joining us. I hope this session has been helpful. I look forward to talking with you in the other sessions and we look forward to telling you more about the RESET Program after we finish the conference. Thanks for watching.