



Conscious Life presents

# TRAUMA SUPER CONFERENCE

## The role of pain and stress in healing trauma

Guest: Dr David Hanscom

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### [00:00:09] Meagen Gibson

Hello and welcome to this interview. I'm Meagen Gibson, co-host of the Trauma Super Conference.

Today I'm speaking with Dr David Hanscom. His Orthopedic spine surgery practice focused on patients with failed back surgeries. He quit his practice in Seattle, Washington to present his insights into solving chronic pain which evolved from his own battle with it. His book, *Back in Control*, is associated with an action plan, the DOC journey, which guides patients in solving mental and physical pain.

His latest book *Do You Really Need Spine Surgery?: Take Control with a Surgeon's Advice*, is intended for healthcare practitioners and patients alike to make an informed decision about undergoing spine surgery.

Dr David Hanscom, thank you so much for being with us today.

### Dr David Hanscom

Thank you, Meagen. I always enjoy our conversations.

### Meagen Gibson

So I want to start, we were talking even before we started recording about stress, and so I want to talk about how mental stress translates into physical symptoms.

### Dr David Hanscom

So humans have a problem called consciousness. And so every living creature stays alive by avoiding threats or danger. And we create actions to avoid the danger and survive for another day. So we have a biological imperative, first of all, to survive. And we have a second imperative to pass our genetics on to the next generation. That's it.

So humans, relatively recently, in fact, very recently in the course of evolution, language has only been around for about 100,000 years compared to hundreds of millions of years of evolution. So we have language that creates the same threat response as a physical threat. So it shares the same circuits. You get the same physiological response, which is fight or flight. And fight or flight is necessary, it's powerful and we cannot survive without it.

**[00:02:02]**

Humans have a word for it called anxiety. So, anxiety is the driving force behind essentially all human behavior. In other words, trying to avoid that sensation is the driving force behind all these, quote, psychological diagnoses. Because unfortunately, or fortunately, depends how you look at it, we cannot escape our survival response. And that survival response is about a million times stronger than our conscious brain.

So anything we do consciously to deal with this thing we call anxiety, I'm going to call it activated threat physiology and get rid of the word anxiety, anything to do rationally to try to solve it is impossible because you can't live without it. It's incredibly powerful. Talk therapy doesn't work. Mind over matter doesn't work. So the only thing we can do, as my friend Bruce Lipton says, you have to reprogram it.

In other words, anxiety and anger are automatic, hardwired survival resources, reactions. And Bruce and I have become good friends. We just put a series of videos together. And his point is that to change anxiety and anger, you might as well talk to the hard drive of your computer. You can't do anything. But what you can do, you can reprogram it. So we know fight or flight, or this threat response, is an ongoing process that happens every day.

So anxiety and anger are necessary for survival. And so what happens when you're under threat, physical threat or a mental threat? It changes your body's physiology. And those physiological changes create physical and mental symptoms. So you have stress, your body interprets it, creates an appropriate physiological response, and you develop symptoms.

So there's nothing to do with being imaginary because, again, this unconscious reaction is so much stronger than your conscious brain. And it's sort of interesting that somehow we think that there's a difference between the mind and the body. It's just absolutely a unit. In fact, the brain is part of the immune system. Half the brain is glial cells which have inflammatory receptors all over the brain.

So your brain is just a central control station, to relay a switch, it's interpreting sensory input, just like my cat does. Interprets the environment to act in a way to survive. The species of creatures who didn't pay attention to these cues just didn't survive. So you have this incredible survival reaction. It's uncomfortable. It's supposed to be uncomfortable because it's a survival sensation and it's never going to get pleasant. It's not supposed to.

So we can talk about how to solve it, but the bottom line is I'm just trying to say that, okay, stress, because we tend to think of stress in terms of psychological issues, right? It's not. It's just a threat. So you can call it threat, circumstances, stress, whatever you want to call it. That's your threat to survival.

So, again, we know how to survive physically because we're here. A lot of our survival skills, by the way, are not very pleasant or nice, but we know how to survive. We do not know how to survive emotional threats. Humans have not learned to navigate the language of consciousness, so we can't escape our thoughts. We're in constant threat physiology, and we get sick.

So we'll talk about this in detail as this program goes on, but it's the chronic stress, mostly in terms of human consciousness that causes your body to be in fight or flight. So it's that chronic stress

that makes people sick. I just have to say one more thing. There's a new term out that started in 2002 called medically unexplained symptoms. In other words, your stomach hurts, you have a headache, whatever you have going on. The doctor does a bunch of tests and they, quote, can't find anything.

**[00:05:47]**

They say, well, there's nothing wrong and live a good life. Or we'll give you some medication to help with the symptoms. That could not be farther from the truth. Everything's wrong. Your body's in fight or flight. Your inflammatory markers are elevated. Your blood pressure is up. Your muscles are tense. The blood supply to your stomach has shifted. You're hyper reactive as far as histamines, so people get skin rashes and psoriasis and all sorts of stuff.

So what I don't understand, I just have to rant for a second. We learn this in high school, college, and medical school, about fight or flight. Your body has a reaction to your stresses in a way to survive. This is not new news. In fact, it's really basic stuff. So I don't know how medicine in general got so far down the rabbit hole that most symptoms, you have to have a reason for it, structurally, and it's the opposite. 90% of symptoms are physiological. Again, just to be clear to the audience what physiology means, it just means how the body functions.

So, for instance, a parked car has no symptoms. You have to turn the car on. So whatever's wrong with the car will manifest when it's turned on. So that's the physiology of the car. So your body physiology is blood pressure, heart rate, sweating, all these different things happen. A lot of chemical reactions, hormone reactions, they happen in this millisecond. In a split second. So your body is just dynamically adjusting to the environment every second to survive. So how's that for a very long answer for a short question?

**Meagen Gibson**

No, I totally get where you're going with it. It was great. I just want to come back to a few points, and I really love the context that you put it in. It actually reminds me of another contributor that we talked to just a little bit ago before your interview was Dr Ron Siegel, who's famous for saying, we did not evolve to be happy. We evolved to survive.

**Dr David Hanscom**

Correct.

**Meagen Gibson**

And the fact that we've kind of divorced the body from thoughts in the brain and the head and don't think that our thoughts have any effect on, and even our perceived stress, because perceived stress and emotional stress is also a way that we biologically stay alive and further our species. We have to be able to fit in. We have to have cohesion in our family groups and our culture groups in order to survive until very, very, very recent history. So we're trying to put these thought controls on very physiological, biological responses and drivers, if I hear you right.

**Dr David Hanscom**

Yep. And of course, I'm doing a whole series right now on the family, and this may be a different conversation that we can have on another day, but I'm working with my friend Les Aria discussing

family issues. I'm working with my coaching group on family issues. So it turns out that the families by far and away are the biggest triggers. So you can actually heal yourself.

**[00:08:41]**

You go back into the family structure and families trigger each other. Trigger means something irritates you. Your body goes into fight or flight, you lose rational thinking. So, especially in the presence of chronic pain, and I want to say the term chronic disease, because it turns out that all chronic disease, mental and physical, has the same root cause, which is sustained exposure to stress or stress physiology.

So it turns out that Parkinson's, Alzheimer's, cardiac disease, peripheral vascular disease, hypertension, obesity, adult-onset diabetes are all inflammatory metabolic disorders. Same thing for cancer, even. So, then it turns out that mentally it turns out anxiety, depression, OCD, bipolar, and schizophrenia are all inflammatory metabolic disorders. As one of my friends says, I'll call him a true genius, it's actually all the same suit. It's all the same thing.

And what's my mission personally is just to get this message in the world that what we call anxiety is not psychological, it's a physiological state. And when it's sustained, it translates into mental and physical illness. And so, in contrast, personally, and there's a few people starting to think this way, I think the essence of all chronic illness in humans is consciousness, because we cannot escape our thoughts.

And so the psyche comes into play because thoughts are one of the century inputs that create fight or flight and you said it really nicely, is that we try to use these rational means to deal with these irrational circuits. It's a complete mismatch. And so we just are under constant fight or flight. And I've done this since medical school, and I never really understood it until recently that what really causes trouble in people is chronic stress.

I mean, we can sort of deal with acute stress. Then we relax and go on to another day. Again, fight or flight comes in every day, multiple times a day. So you learn how to process stress really effectively and then rest and relax. When you don't have the stress processing told, you're in fight or flight all the time.

So Dr Steven Cole out of UCLA has done a study on the genomic expression of chronic stress. When I say that, it means you have DNA that sends out signals to the body to create certain proteins in certain types of, I mean, it's complicated. So the bottom line is that your DNA has coding. There are 20 or 30 genes that dictate the production of what's called monocytes. Those are little white blood cells that actually chew up viruses and bacteria.

There are a lot of different kinds of white cells, and the monocytes are one of them. But what happens under chronic stress? The genomic expression or expression of this DNA turns into what's called warrior monocytes. So it's like a killer bee compared to a regular bee. It still kills off viruses and bacteria, but it also attacks your own tissues. And so the two things to create this production of warrior monocytes at the genomic expression level, in other words, expression of your genetic code is chronic stress.

And the other one is actually social isolation. Those two together. And then down south of San Diego a little bit farther, and this is something that we just don't even know what to do with, Dr Naviaux is an internist, he spent his entire life researching the mitochondria. What the mitochondria

are, there's little engines in every cell that have a reaction. And that chemical reaction creates energy that allows us to, it provides the energy for life.

**[00:12:25]**

So under chronic stress, the mitochondria breakdown in three stages. And when they break down, they fissure, in other words, they break up, and this reaction goes to the outside of the cell. In other words, this molecule called ATP is supposed to be inside the cell. It ends up outside the cell and is highly inflammatory. So you have to complete the healing cycle. There's three stages of breakdown, three stages of reconstruction.

And the mitochondria can't complete the reconstruction until they get what's called cues of safety. So when you're in chronic stress, the mitochondria cannot complete the healing cycle, and it's called systemic chronic inflammation. Your whole body is inflamed, but there's not a blood test that measures this incredibly small molecule. So they estimate that this systemic chronic inflammation is responsible for over half of all deaths.

Again, all the diseases we talked about, cancer, heart disease, Alzheimer's, all these things are from systemic chronic inflammation. Again, you go to the doctor and they say, well, you have these symptoms. We can't find anything wrong. Well, because first of all, this reaction that Dr Naviaux uncovered is not measurable. It's only measurable under the electron microscope. So the issue is chronic stress or chronic threat, and so the essence of all chronic disease, now we've come way out of chronic pain, is this chronic threat state that starts attacking your own body.

So what's happened in modern medicine, we've been good at prolonging life, and 500 years ago, when people were under these circumstances, they just died early. So we know how to treat symptoms to keep people alive longer. We haven't necessarily given people a higher quality of life, right? I mean, that's been a big problem. So if you can't complete this healing cycle, the mitochondria stay inflammatory, and people get sick.

And I have to go back into the history of medicine a little bit. But, I mean, people were under chronic stress centuries ago, horrible living conditions, persecutions, all sorts of stuff. They got sick, but they couldn't stay alive. They had shortened lifespans. So now we keep people alive longer, and we allow them to get a lot of chronic diseases. And what I think is tragic is that it's so solvable. We actually know how to solve this, and somehow medicine is just overlooking the entire process.

### **Meagen Gibson**

Well, and I definitely want to lead people into kind of some of the solutions, even though I could talk about the problems probably for another couple of hours with you, because I'm really resonating with a lot of what you said. And not only disease, but the diseases that we think of normally that you mentioned, but also things like autoimmune diseases and just inflammatory symptoms that people get just systemically, and they're like, I don't even know where to begin. It feels like a five alarm fire.

### **Dr David Hanscom**

I guess that's what it actually is. It is a five alarm fire. Your whole body is inflamed. So that's where I get a little bit irritated about this thing called medically unexplained symptoms. It's really MES,

medically explained symptoms, they're perfectly explained by the body's highly inflammatory state, also metabolic state. So metabolism is how your body burns fuel.

**[00:15:40]**

If you're in fight or flight, you actually cannibalize your muscles, tissues, and ligaments and your brain cells, by the way, to supply glucose to run your body. So we know in chronic pain, for instance, it's been well documented that your brain actually physically shrinks. We talk about brain fog from long covid, by the way, long covid is another one of those chronic diseases. It has the same etiology as the other chronic diseases, and they talk about brain fog.

Well, guess what? Your brain's inflamed. So when your brain's inflamed, again, the blood supply goes from the thinking centers into the midbrain, and you really can't think clearly because your blood supply has shifted. You can't do it as physiologically, your brain has shifted. So you want to think clearly, and you just can't. So, again, we can talk about the solutions in a second, but there's ways of shifting the activity.

So, again, I'll say that one more time. The essence of chronic disease is sustained exposure to fight or flight, which is sustained stress. The essence of healing is to minimize your time in fight or flight and increase your time in safety, which is rest and regeneration. And you always are going to have fight or flight. That's just part of life. It's part of staying alive. It's a gift. But if it's sustained and it doesn't have to be that way, that's when people get sick.

**Meagen Gibson**

And I love that you put it in that context. We don't want to diminish or get rid of fight or flight. It's necessary. It's a protective gift that we have developed. We wouldn't be here without it. We just need to have practices that can help us digest and get into the rest and relaxation part after that flight or flight response.

**Dr David Hanscom**

Yes. So, as you know, we can go just about 500 different directions with this conversation. So we can definitely talk to you more about the problem, or we can jump into solutions a bit because it is so solvable.

**Meagen Gibson**

I would say I want to definitely go into solutions, if you don't mind.

**Dr David Hanscom**

Yeah, okay. I do want to say one thing. This is brand new data as of even a few weeks ago, and I just want to talk about one more thing about PTSD. I guess I want to say two things. One is about ace scores.

**Meagen Gibson**

Yes. Slow down just a bit for anybody that hasn't heard about that before. So, what's an ace score?

**[00:18:03] Dr David Hanscom**

So ace score is a study done in 1996, 97 out of Kaiser in Southern California. They looked at over 17,000 patients and they just have a scoring system. There's an eight point score, then a ten point score and they just listed life events in a checklist. So if you had a score of three or more on this score, there's things like physical, emotional and sexual abuse, neglect, parent in prison, parent on drugs, just a chaotic, abusive childhood.

So if your ace score on the ten point scale was five or more, you had a high chance of a major disease with a short lifespan, cardiac disease, mental issues, societal issues, all sorts of things happen. Then I found out a few weeks ago that if you have a chaotic childhood, your inflammatory markers stay elevated 20 and 30 years later. Now, why would that be?

And here's what happens. My ace score was five and guess what? I got sick. And what happened is not psychological, but you're programmed in a very chaotic environment. You're always on the lookout, you're hyper vigilant. And that's the way you're programmed, that's your first six years of life, maybe a little bit longer, is programmed to look at life as dangerous. So you're constantly in fight or flight.

The inflammatory markers stay, and these are measurable markers, by the way, there's some more gross inflammatory markers and these are actually measurable markers that 20 and 30 years later stay elevated because you had a chaotic childhood. So, adverse child experience is a big problem because it gives you a life filter that you interpret the rest of your life in. And that's why they stay elevated.

It's not like that event hasn't affected the rest of your life, it's how you interpret your current reality through that lens. So that's a problem. The other thing though, as far as PTSD, so as of a couple of weeks ago it's like everybody has trauma, some people do better than others. It's not a big deal. So I really sort of minimize this idea of PTSD. So you can have a childhood trauma and you can do reasonably well in life. You don't have to have an unpleasant adulthood, even though it mostly does happen that way.

But they looked at soldiers who were exposed to horrible things on the battlefield. They looked at people like first responders, like policemen and firemen and nurses, et cetera. And they noticed that when people had PTSD symptoms, that their body chemistry was way off compared to people who did not have PTSD. And I didn't know this, I said, well, everybody has trauma. Some people cope with it better than others.

But what happened is that there's this hormone in the body called oxytocin, which is a bonding drug, highly anti-inflammatory. Then it's cousin, very closely related molecule, is vasopressin, which is highly inflammatory. So they looked at the differences between oxytocin and vasopressin. They found out that in people with PTSD, it had high levels of vasopressin, inflammatory, compared to lower levels of oxytocin.

And people without PTSD actually had the opposite. The oxytocin levels were elevated, and vasopressin was low. But then they found out, we've known this for decades, that the one thing that probably prevents PTSD in veterans, for instance, is social connection. So humans evolved by social connection. In the history of the world, if you really want to punish somebody badly, a fate worse than death is actually ostracizing them from the community.

**[00:21:36]**

So social isolation is a horrendously big problem. And then out of the UCLA study, they found out that social isolation was one of those factors that predicted this production of warrior monocytes. So, social connection. So oxytocin is the bonding drug. It's the love drug. It's not just about pregnancy and lactation. So when you're with other people and enjoying them, there's oxytocin in abundance.

So the biggest factor in predicting people who had PTSD versus didn't was the levels of oxytocin. Very clear. It was not even a close overlap. The people with PTSD were up here. The people without were down here. Then you go back to the ace scores. They found out if you had a chaotic, abusive childhood, you had a much higher chance of PTSD because you have a hyper reactive nervous system. And I will finish this in a second.

The metaphor I like to use is that of a feral cat. Think of a feral cat. It's on its own from being a kitten. It's surviving by the second. A lot of them don't survive, of course. So now you have an adult feral cat that's hypervigilant. You can't touch this thing. You can't get near it. So your nervous system is like that if you come from an abusive childhood. I mean, your parents are supposed to provide you nurture and safety and provide you cues of safety.

And if they're constantly critical or abusive or whatever you want to do, what happens is that you're hyper reactive. And so you can't fix a feral cat, but you can train it to feel safe, which takes a lot of work. So if you're one of those people who has a hyperactive nervous system, your body chemistry is off, way off. And to solve it, you have to actually calm down the reactivity of your nervous system.

In other words, you have to learn to feel safe because your brain reacts to what it's learned. And so right now, as an adult, you intellectually know that you're safe and can take care of yourself, but your unconscious brain doesn't know that.

### **Meagen Gibson**

Yeah, and just to go back to the aces study and aces experiences and anybody that's got a high score, you're also not getting that oxytocin from your family of origin because they aren't safe either from neglect or abandonment or abuse.

And so that oxytocin is low from the get go. Now, we can get those interactions with other safe people in our lives, like teachers or neighbors, things like that. But that family of origin bond is damaged and unsafe so, therefore, you kind of carry that into adulthood. And it's a lot of work to heal.

### **Dr David Hanscom**

But there's another layer to this that we should be aware of, okay? So when you feel unsafe, your body is full of inflammatory chemicals and you're constantly on high alert and you're constantly anxious. So there is a very dysfunctional solution to this. It's called anger. So the antidote to anxiety is control. The more power you have, the more control you have.

And when you're angry, remember, anxiety is an activated threat response. Anger is a hyperactive threat response, but it also has dopamine. So when you're angry, you feel very, very powerful. So this is what's disturbing about the human experience, is that they've done several studies in kids



that were bullied and they found out they had markedly higher inflammatory markers than the average school person. That would make sense, right?

**[00:25:04]**

I think bullying is just atrocious. So then they did the inflammatory markers on the bullies, and guess what? Their inflammatory markers were actually lower than average. So remember the antidote to anxiety is control. The more power you have, the more control you have. So there's actually a physiological reward for being a bully. I mean, they have a whole nother set of issues. And of course, I'm not recommending that as a solution for anxiety.

That's the way of a lot of people being really, really aggressive and then I'm not going to mention names, but it's all over the world. You look at the world's leaders who are in power and they can't get enough control. So just helping their people feel better, they want more and more land, more and more power, more and more money. But what drives it, by the way, is anxiety.

### **Meagen Gibson**

Well, and even to go off of that, if we even lower it from our world's leaders, if we just go to ordinary people in the world that experience a stress response, something gives them anxiety. They're not being treated the way they want to at a restaurant or in a store or something. And we're seeing it all over the country, these people that get activated with a stress response, fight or flight, and then start mistreating people and acting out in ways that they're not in control of, because it gives them the sense of control.

Instead of having an adult, rational, grounded interaction with somebody where I can express I'm unhappy, let's work towards a solution. I've got to get this feeling away from me as soon as possible.

### **Dr David Hanscom**

And the solution lies in, by the way, we'll talk about the solution here in a second, but the solution lies in learning to be, I use the word comfortable but that may not be the right word because remember, anxiety is always unpleasant, but being okay with having unpleasant emotions. You just train your brain to be with the sensation and as you quit fighting it, it starts to lose its power.

Because the other antidote to anxiety isn't always control. You give up the need for control. In other words, you learn to regulate your own body's chemistry to calm yourself down. So I'll ask you a rhetorical question, which is not intended to be answered correctly, but I'll ask you the question here just to think about this, okay?

So anxiety is unpleasant. It's powerful. It protects you. It's a gift. It's not responsive to rational interventions. As Bruce Lipton says, you might as well be talking to the hard drive of your computer. So rational interventions do not work for anxiety. And anxiety, again, is the word we use to describe this activated threat response or activated stress response. So how do you lower anxiety?

### **Meagen Gibson**

Do you want me to really answer, or is it rhetorical?

### **[00:27:37] Dr David Hanscom**

It's sort of both. You'll give me the right answer, but it won't be the answer I'm looking for. I just want to make a really strong point here. So what would be your answer to that?

### **Meagen Gibson**

The practice that I've developed is, first of all, I always give thanks. I know it sounds cheesy, but I always, when I have an anxiety response, thank my body and my physiological system for trying to protect me.

### **Dr David Hanscom**

There's not a right or wrong. I think that's a great answer, by the way, I haven't heard it put like that, but I think that's a wonderful answer. The answer I'm looking for is that you should be lowering your stress physiology. So there's a bunch of ways to do that, and we'll go into the solution here.

So, again, anxiety is this hyper activated stress response. And the way you lower anxiety is to lower stress physiology. And so there's a term we use that we call dynamic healing. And so going back to the original part of the conversation, every living creature has their circumstances or stresses or threats, whatever you want to call them. There's both mental and physical.

And humans have a problem that I call the curse of consciousness that we can't escape. So we have ongoing input, or stresses, that's the input. Then you have the state of your nervous system, which can be calm or hyperactive. And as we discussed, if you were bullied or had a high ace score, you're like a feral cat. So you have a hyper activated nervous system, hyper reactive nervous system, so it takes less stress to set off this physiology.

So then the output is the physiology or the body's chemistry, so you're in fight or flight or safety. Safety we call rest and digest. And so when your body is in threat physiology, you have adrenaline, noradrenaline, histamines, inflammatory cytokines. Your metabolism is on fire. So, again, when you sustain fight or flight, the physiology or the output, you have a problem as far as chronic stress breaking your body down.

So, again, the goal is to minimize time in fight or flight and maximize your time in safety. And this happens every day, multiple times a day. And the key is I call becoming a professional at living your life. So we develop skills at processing the stress reaction and become an expert at nurturing joy. But if you're trying to nurture joy to compensate for the survival reaction, it doesn't work.

And that's where people get really screwed because you have everything in your life, money, power, friends, family and you're miserable. Well, you're miserable because your body is still in fight or flight. So we can talk about some of the basic information. I'm not sure how much detail you want to go into, so I will go back to our website, [thedocjourney.com](http://thedocjourney.com), or there's an app we have, it's also based on a workshop, this experiential app that really works in play and safety. I do have a book called *Back in Control*.

So I'm going to say a couple of things in principles and the details are there. So, first of all, you can't go from threat physiology to safety without knowing the tools. Again, it's too powerful. So let's work backwards and talk about the output. So there's things you can do right now, we'll just

do it right this second. Just drop your shoulders down, take a deep breath and let it out in slow breathing.

**[00:30:58]**

Less than six to ten breaths per minute. Not necessarily anything special, not necessarily attentional, just slow breathing activates what's called the vagus nerve. The vagus nerve is the 10th cranial nerve which comes out of the midbrain. It is the number one anti-inflammatory power in the entire body. It goes to every organ in the body. It's highly anti-inflammatory.

So rubbing your forehead stimulates the 5th cranial nerve, which, again, the vagus nerve is the 10th cranial nerve. Humming stimulates the 7th cranial nerve, which actually stimulates the vagus nerve. Dr Porges, who taught me almost everything I know about the vagus nerve, talks about what's called a safe and sound protocol, where they take pictures, it's through a set of headphones, so you listen to music that's filtered.

And so what he's done, he's filtered out the threatening part of music, which are low tones, predatory type tones. And so this filtered music actually allows your, again, vagus nerve to feel safe. So we call it cues of safety. So breathwork, humming, sound, all those things actually calm the vagus nerve. So that's the output.

Now that just lasts for a few seconds at a time. It's not like the ultimate solution, but during the day it can actually help you get through the day more quickly. When you're activated, you just calm yourself right down. Again, not psychological, but physiological, right? You're just using ways to stimulate the vagus nerve.

So let's talk about the nervous system. Remember we have the feral cat analogy. It may be you didn't come from an abusive background, it may be you're just under a lot of stress. So there's things that make the nervous system hyperactive. One is an inflammatory diet. High sugars are very inflammatory. Lack of exercise, highly inflammatory.

Sleep is huge. So during sleep, your body actually empties waste products out of your brain called the glymphatic system. So without sleep, your brain is filling up with junk. And so the number one factor we do as far as treating chronic pain is getting people to sleep. Again, that's a different conversation. So diet, exercise and sleep are big deals.

And if you decide to do trauma therapy, which I think many people need, and that's not my expertise at all, but there's about ten different types of what we call somatic therapies that I think you're well familiar with, that just train your brain to be less reactive. So as Dr Naviaux pointed out, with the mitochondria, you can't fix mitochondria, you have to rebuild it. In other words, you can't rebuild a house that's burned down with the burned down timbers. You got to reconstruct it.

So the problem is people say, well, I tried an anti-inflammatory diet, I try to exercise, I've gone to therapy and nothing's worked. Well, remember, it's complicated. So if you do trauma therapy, it's part of the solution. Sleep is part of the solution. Exercise is part of the solution. But none of them work by themselves.

So the final portal of lowering threat physiology is the input. So the question is, what are you loading into it and what are you holding onto? So the exercise that's been the most powerful has been called expressive writing. You have to write down your thoughts, throw them away. There's

over 2,000 research papers that document that this works. Nobody knows exactly why it works or how it works, but it's incredible what it does.

**[00:34:23]**

It lowers inflammatory markers, it improves wound healing, it halts asthma, reverses autoimmune disorders. It's unbelievable. So we talked to Dr Pennebaker last week in our monthly meeting and he just laid it out there about his perspective on it because he came across it by accident in the early eighties, and he's the guy that started the whole thing.

And so he published his first paper in 1986 and it came about with women with sexual trauma, that when they would talk to people like their parents and relatives and friends about their sexual trauma, nobody believed them. And I've seen that in my practice where people just don't believe that this kid would make something up about their father or mother, whatever. So it happens, then they're ashamed and they have secrets.

So it is about the secrets. It isn't about sexual trauma or something she did wrong or whatever it is you feel ashamed about, the key word is secrets. And so by doing expressive writing, not to confess them, you don't have to talk to anybody about it. Just writing your stuff on paper and tearing it up actually is incredibly liberating. So expressive writing is a big deal.

It's always a starting point. It's the only part of my process that's absolutely mandatory. If somebody decides, well, I don't want to do expressive writing, that's fine. I'm just not your guy. I can't do anything without that. So it's not the final solution, but it is the necessary starting point. So again, that's part of it.

One thing we talked about, which I'd love to talk about, again, in a separate podcast, are cognitive distortions. Remember, the problem is consciousness. And I have written several articles on the absolutely deadly nature of self esteem. Most of our self esteem is based on what Dr Burns in his book, *Feeling Good*, calls cognitive distortions. And I think the number one cognitive distortion is a self critical voice. You can't escape it.

We're programmed by not being good enough, not being good enough. And it is relentless, but it's a cognitive distortion. Who said you're supposed to be this way? So there's ten different cognitive distortions, like labeling, catastrophizing, minimizing the positive, maximizing the negative. But the thing of the self critical voice and perfectionism is deadly because you can't get rid of it, and it becomes its own little phantom brain pain.

So the final two things I'll say about the input is forgiveness, or letting go of anger, is a huge deal. Every person that's truly escaped out of chronic pain, it's always around anger. But the problem is, a lot of this anger is so deep that you don't even know it's there. That's what happened to me. I didn't know I was angry. I thought I was pretty cold, and it turned out I wasn't.

So it turns out if you have an abusive background, you just put your head down and don't complain, you're unconsciously repressing anger. It's a big problem. So the final thing to say is that we actually, I did this for years, we learned this in our workshops, but if you come to my office as a patient, I found out that probably 60% or more of your waking hours are spent discussing your pain or your troubles.

**[00:37:34]**

And what's happening from a neuroplasticity standpoint, you're actually reinforcing those circuits. Just like when you walk through the door into my office, you're not going to discuss your medical care, you're not going to discuss your pain or complain. You're not going to give unnecessary advice. You're not going to be critical, just done. Just stop it.

And it's sort of hard to do because all of us are used to complaining. I was guilty as charged, remember I was in chronic pain myself for 15 years. And I just kept searching and searching and searching for a solution. And why wouldn't I? And why wouldn't you? But the problem is, your attention is on the problem, not the solution. And so if you want your brain to change, again, the brain is incredibly neuroplastic. It changes by the millisecond.

You got to get your brain on where you want to go. So I'm not into positive thinking, which is a way of suppressing negative thinking, but a positive vision is absolutely critical. So, in summary, with dynamic healing, you can change the input, increase the resiliency of the nervous system. You can directly lower the physiology of the output. We call it dynamic healing.

So as you learn these tools, you'll use a different set of them every day. You'll become automatic with time and repetition, but you have to learn them and use them and practice them. So you're not going to learn how to play the piano by reading a book. And unfortunately, I'm one of those golfers that even when I practice, I'm not that much of a golf guy, but you're sure not going to learn how to play golf by reading a book.

But in my own defense, I have not put the repetitions in to learn how to play golf. Well, I remember 20 years ago, I made a decision for me to be really good at golf, it's going to take a lot of time. I'm just not going to do that. So I made that decision to enjoy the game versus not. This is different. This is your entire life at stake.

You want to become a high level professional at processing stress and nurturing joy, and you become a professional at living your life. So you minimize your time in fight or flight. You maximize your time in safety. And the people that get better, we have hundreds of people getting really better in healing, they keep making up the concept that the solutions are disturbingly simple. This is not hard to do.

### **Meagen Gibson**

Yeah. I just love what you said about, let's focus on processing stress and maximizing joy. And if somebody, as you noted, has experienced chronic pain, you know how much it can permeate, you want to talk about it because it's permeated every aspect of your life.

It can impact your sleep, your ability to eat, your ability to move in the world and enjoy what you might have used to enjoy or what your family and friends might enjoy. So since it permeates every aspect of your life, it's no wonder it's the one thing you want to talk about the most or let people know is going on. But at the same time, let's address all those. Let's process the stress and maximize the joy.

### **Dr David Hanscom**

But remember, just to remind people, again, the stress is a million times stronger than your conscious brain. So there are separate skills because what we tend to do and this is what I did, I

did accomplishments and all sorts of adventures and things to distract myself. So if you're pursuing pleasure to distract yourself from the survival reaction, there's a complete mismatch.

**[00:40:51]**

So Dr Cole, UCLA, again showed a really fascinating graph that if you live life with hedonistic pleasure, your inflammatory markers go straight up. I mean, really straight up. And so what you're doing, you're trying to compensate for these massive survival circuits. If you live your life with a sense of purpose, connection and joy, your inflammatory markers go straight down.

So when your inflammatory markers are going up versus straight down, is that psychological? It's yes and no. Because, again, stress translates into physiology, translates into symptoms and disease. So the psyche is part of it. I mean, unpleasant thoughts are the psyche amongst all sorts of other threats. So, again, to me, this thing we call consciousness is sort of the essence of the problem.

**Meagen Gibson**

We could talk about this all day.

**Dr David Hanscom**

I know.

**Meagen Gibson**

So you mentioned it earlier, but I want to make sure that people get, how can they find out more about you and the DOC journey?

**Dr David Hanscom**

So I have a website called [backincontrol.com](https://backincontrol.com) and all the resources are listed there so you can link to the action plan. And the two action plans that I've put together, one is called the DOC Journey app. And so it's based on our workshops, based on awareness, hope, forgiveness and play. And people go, what are you talking about discussing play in the presence of chronic pain?

Well, guess what? Play is a profound shift in your body's chemistry. You're connecting with people. Your body's chemistry is oxytocin and dopamine. There's nothing more powerful than play. But, again, you can't just get there or if you're trying to play to distract yourself. So that's what the app does. It takes you through that sequence.

The DOC journey course is computer based, and is focused more on anxiety than it is on the pain. Because anxiety, I know we just talked about this for the whole, but just let me reiterate that you cannot treat physical symptoms without addressing the mental input. It's not possible. So we have learned that anxiety actually is the pain and we have to process the mental input. So the DOC journey takes you through a different sequence of actually coming out and letting go, processing and learning how to process anxiety. So that's the course.

I do have a book called *Back in Control: A Surgeon's Roadmap Out Of Chronic Pain*, which is basically my story and some of the basic concepts about how pain symptoms develop. And then

you'll see, Bruce Lipton and I just put together a four part series that's now on my website as of today.

**[00:43:18]**

And we basically create four half hour videos, look at the concepts of healing principles, but also how your thoughts and your outlook translate into physiological changes. So we had the best time making this video. And I think people also find that very helpful. So, yeah, I'm excited about things, how people are getting better. And so I appreciate you having me try to get these concepts out into the world.

**Meagen Gibson**

Absolutely. Dr David Hanscom, thanks again for being with us.

**Dr David Hanscom**

Thank you.