Burnout as Nervous System Dysregulation

Medicine thinks of burnout as a workplace phenomena. So too much stress, not enough rest, take a vacation. That's what I think burnout is. It's a dysregulated nervous system.

Somebody who's been running at high performance for so long that chronic stress has become their identity. and they have never learned to recalibrate their nervous system to come back to a state of safety and creativity.

Welcome back to the Think Well, Age Well podcast. I am your host, Dr. Heather Sanderson. We're exploring the science and stories behind building healthier brains that last longer and allow us to live more vibrant lives.

Today, I'm joined by someone who brings together an extraordinary combination of experiences as a board certified physician, US Navy veteran, entrepreneur, and researcher of human performance.

Dr. Nagin Rajapur is the founder of Vita Regen Medical, co-author of the Amazon number one bestselling book, The Resurrection Algorithm, and creator of The E3 Method.

a clinical framework that views the nervous system, hormones, trauma history, and identity as one interconnected system rather than separate problems to solve.

Her work challenges the idea that burnout, chronic stress, underperformance are issues of willpower. And instead, she asks a deeper question. What if your biology is determining far more of your potential than you realize?

Today, we're going to explore the nervous system as the missing link in health, resilience, leadership, and even cognitive longevity. So whether you're an entrepreneur, a caregiver, healthcare practitioner, or someone just simply striving to perform at your best, I think you are going find this conversation both fascinating and deeply practical.

From Normal Labs to Hidden Stress

Welcome to the show. Thank you for the warm welcome and intro. I appreciate you. Yeah, of course. What I kept seeing in patients was that they had normal labs, but they were clearly suffering.

They were exhausted, inflamed, anxious, and disconnected. So the system had nothing to offer them because technically there's nothing wrong. The system, our model was built to deal with acute illness, not for the chronic cumulative physiological issues that we see with chronic stress and trauma.

So I could not keep handing prescriptions over and manage people's symptoms. I decided to build a model that can go deeper. That's amazing. What about you personally?

Did you experience any burnout? Yes, throughout my career, I had some challenges myself when I was in medical school. I went through a toxic divorce and custody battle, so that dragged on into residency.

And after finishing my intern year, at the peak of my career, I had made it. I made through medical school. Made it through the toughest year of residency.

And it just hit me. It was flat on my face. My body shut down. Had to take two months off of the life I worked decades to build. So that really opened my eyes to the toll stress and trauma can take.

And gradually, over the years, I kept seeing recurring themes, not only in myself and also in my colleagues and my patients. And that's basically the foundation of my work.

Many of our listeners are focused on preventing cognitive decline and optimizing brain health. You believe that the nervous system deserves a much larger role in these conversations around brain health, and I agree with you.

I can think of a handful of patients just off the top of my head where the nerve system, the chronic stress I see is clearly playing a role and their cognitive changes.

Adult Adversity and the AAE Score

And I think we can all relate to that feeling of being under a lot of stress and not remembering things and, not feeling clear, feeling distracted. But also, there's more to it than that.

So, can you help us connect the dots between chronic stress, trauma, and cognitive function? Absolutely. The ACE is landmark research. So it proved that childhood adversity has measurable biological consequences.

But my patients weren't just carrying childhood wounds. They were carrying divorce, financial collapse, career challenges, betrayal, and identity erosion.

Adult experiences that weren' t being measured by the ACE. And I was seeing the same biological marks that nobody was measuring them. That's why I expanded on the ACE and created the AAE score.

that gives us a way to look at the full picture, a person's adversity, not just before 18, but after 18 as well. So you created the adult or the adverse adult experiences kind of like the score, adverse, adult experience, the AAE score as an extension of that childhood ACE framework.

And the gap that you were hoping to fill from what I understand is about, yeah, just taking into consideration the adults experiences, traumatic experiences.

And what have you learned about how these adult experiences continue shaping our biology later in life? You said that there are biological ways to measure that.

Is that right? Yes, they show up as hormonal dysregulation. The most important thing, I think the most, important marker is that chronic stress, when the body is constantly running in survival mode, it basically makes the prefrontal cortex to go offline.

the part of the brain that's responsible for planning, for decision making, follow through, creativity. So this isn't metaphorical, it's actually functionally, we can see that in our patients.

They are not executing at the same level of functioning that their businesses or their lives require of them. So when the high performers cannot follow through on what they know they need to do, the problem is not a character flaw or a motivation problem, its biology.

Change their mindset actually is like telling someone with broken legs to run faster. I think there's a lot of people who can really relate to this, right?

There's high performing people, who I also have this idea, they know what they should be doing, sleeping better, exercising more, eating better and that they struggle with this consistent follow through.

And so can you describe what's happening biologically when our actions aren't aligning with our intentions because of this dysregulation? Well, one part of it is our nervous system, which is in fight or flight mode.

How Stress Impairs Cognition and Follow-Through

So already adding another layer of discipline or a new program into the life, it actually triggers the nervous. You may be able to stick to that plan for a few days or few weeks, but it's not going to land.

It's going be sustainable because the system is already up here, so you're adding more on top of that dysregulated nervous And the other part of it is identity.

So identity is something we leave out in medicine. Who are you from this moment forward? What are building towards? That's something that needs to be recalibrated for any change to really be sustainable.

Yeah, identity can be very stressful to let go of, right? But there's also this potential to create a new identity, there is so much creativity there.

Can we double click on that? How do you think about identity in your approach? I think that identity is built mostly in our childhood and also reinforced through our adulthood experiences.

So when we have significant childhood trauma that shatters our identity and sometimes people don't even have, you know, they have had really amazing childhoods.

But they have certain adulthood adversity, you know, like a betrayal wound or a business collapse or something that really shatters their identity. And they start making decisions based off of their trauma, not the real environment that they're in currently.

Fascinating. And, you know, trauma, there's trauma with a capital T, and then there are kind of day-to-day traumas. Also burnout. I feel like burnout is almost synonymous with modern life, right?

Do we all have trauma? do we have burnout? How do you define these? And when is it pathological? and when it is just part of life? I want to take a moment to share something really exciting with you.

This is something that's been a long time coming for us. At Sulseri, our mission has always been to make dementia rare and optional, to give people real tools, real answers, and real hope when it comes to brain health.

But one of the biggest barriers we've seen over the years is access. So many people need this care. They're motivated, they're ready to do the work, but they simply haven't been able to afford it.

And this is why I'm incredibly excited and proud to share that we are now participating in Medicare's Guide Program. This means that for the first time, eligible patients can receive ongoing support for cognitive decline, Alzheimer's and dementia through Medicare, with significantly reduced out-of-pocket costs and support from caregivers.

Identity, Trauma, and Sustainable Change

We are not just opening the door, we are expanding our team to meet this need. We now have two new nurse practitioners trained in our functional root cause approach to brain health.

They're working alongside us with our teams to deliver this care in a way that's personalized, comprehensive, and deeply supportive. This is about reaching more people earlier and staying with them longer on their journey.

It's about supporting caregivers who have been carrying too much for too long. And it's about making sure that the cost is no longer a reason that someone doesn't get the care that they deserve.

If you or someone you love is experiencing memory loss or cognitive decline or has been diagnosed with Alzheimer's or dementia, I want you to know that there are options and that now there's more access than ever before.

You can learn more and see if you qualify by visiting salseri.com or calling 760-385-8683. This is just the beginning and I'm so honored and excited to be able to bring this announcement to you today.

Well, I think to some degree, it is part of life, honestly, especially in this day and age, with everything going on

globally, domestically, you know, financial hardship, inflation, raising costs of living, and just a host of other things that happen on an individual level, a divorce, loss, collapse.

It's just so much. it's yeah and our audience are they're struggling to care for a loved one with dementia or absolutely yeah chronic illness yeah yeah that is another burden so um basically when well basically so medicine thinks of burnout as a workplace phenomena so too much stress not enough rest take a vacation that's the prescription But what I think burnout is, it's a dysregulated nervous system.

It's somebody who's been running at high performance for so long that chronic stress has became their identity. And they have never learned to recalibrate their nervous systems to come back to a state of safety and creativity.

And so how did you get back there? That's the work, that's really the workout. That is why I developed the E3 model and the AAE assessment. So people can really take a look at the burdens they're carrying and start going deeper and working on releasing those traumas and.

Working on their biology and their physiology at same time, teaching the body to feel safe again for the nervous system to calm down again. So we often think of trauma as an emotional issue.

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And you're kind of, I guess, alluding to the fact that if we have unresolved trauma, that can start to play a role in inflammation and in our hormonal regulation and neuroplasticity and long-term health, both physical and mental.

And so, take us through what is the impact on inflammation and hormones of unresolved trauma, and then what does it look like to resolve trauma? So I think what happens, going back to the high cortisol state, right, the sympathetic state.

We know about cortisol steal. So it steals the precursors that we need to have optimal hormonal health. A lot of individuals, men over 40, women over forty, they suffer with suboptimal hormones, especially testosterone.

And that shows up in their workplace as how fast they can recover from stress. from difficult decisions, from just day to day grind. So it takes a toll and we know the link between trauma and stress and chronic inflammation.

It raises inflammation, it puts the person at higher risk for a whole host of issues, including autoimmune, cardiovascular disease, heart disease. These have been very well studied with respect to the ACE model.

You've also described what you call the guardian state. What is that and why do so many successful driven people have such limited access to that guardian status despite accomplishing so much?

The guardian state, I think of it as the parasympathetic state. The physiological condition of safety, rest, connection, and repair. So it is the state where healing happens, where creativity lives, when genuine connection is possible.

Most high performers who have been performing chronic, sympathetic overactivation, they lose that access. So how that shows up, stillness, rest feels threatening, feels unsafe.

So, how do we get back to that? Is that a muscle that we can flex? How do you do that. Absolutely. Yes, working on nervous system regulation is key. First of all, understanding that you're in this state by looking at the trauma history and then taking action, daily action.

to reset the nervous system. For instance, first thing in the morning, instead of hopping on your phone or on you laptop to check your emails, take a few minutes to breathe and to connect.

So one of the forms of breathing that I really enjoy and I think it's the quickest way to tell our nervous systems it is safe is the long exhale.

Defining Burnout Beyond Workplace Stress

All the breath work programs, they focus on the inhale, which is activating, right? But what I recommend is focusing on that exhale. So inhaling for four seconds and then exhaling eight seconds.

Exhale, the long exhale, it tells the nervous system that it's safe and they can connect. They can bring their prefrontal cortex online before jumping into the day.

That's fantastic. Do you have any other quick tips on things that we can add to our routine that are simple like that, that will help with nervous system regulation?

Absolutely. Doing the long exhale three times a day before a difficult conversation, before the meeting, anytime that you feel like, okay, my cortisol is getting high, and my heart rate is increasing, I'm getting stressed, getting anxious.

I think it's a great way to quickly shift. our state from a fight or flight to the rest and creativity. And then the other thing is cold exposure is great.

They can, you know, somebody can start the day with like a cold shower or cold water on the face or throughout the you can use ice or ice water or a cool drink in your hand to bring you back into your body and help you connect to your nervous system and feel safe.

So are you a fan of cold plunging? I am. It's amazing to see what stress does because sometimes we're not even conscious. We're so used to operating at a high level in an anxious state that we are not realizing.

So when you do cold plunge, in that second when hit the water suddenly, that cold temperature shows you, oh my god, this is what's stress. actually feels like this is what I need to look out for.

And then in that moment, you connect with your breath and you regulate, right? So you start controlling your heart rate, your breathing, everything just starts calming down.

Your body even stops shivering after some time because your nervous system is in a regulated state. So it's almost like flexing the muscle of nervous system regulation in a very stressful experience.

Because I think sometimes people will say, wait, this doesn't make sense. Why would I stress my body and my brain out even more when I'm already under stress?

You know, like an entrepreneur or somebody who's pushing through a caregiver. You know, is it always a good idea for them to go do a cold plunge, or are there people where maybe they're already under so much stress that that additional stress doesn't make sense?

Yes, I've also often wondered about that myself.

Inflammation, Hormones, and the Guardian State

So I think if someone has that awareness and self-reflection and they know that they're under a lot of stress, so I wouldn't recommend an activating practice like a cold plunge.

I recommend more calming practices like breath work, yoga, meditation, things that bring the system to a state of calm as opposed to activating it again.

Yeah, it's so interesting. I mean, I debate for myself often because there have been times that I'm feeling under the weather, burnt out, maybe like I am about to get sick or feeling a lot of stress and then I'll go and do a cold plunge and I actually feel way better and for days afterwards I will feel a whole lot better.

So I always struggle though. It's like, isn't that more stressful on an already stressed out system? So it was just,

yeah, we're the expert on this stuff.

Yeah, I'm glad you're seeing that connection too. I think even with workouts too, sometimes if our body's too stressed out, we shouldn't be going and doing hard workouts.

We should be opting for more calming exercises, Pilates, yoga, things like just walking itself. That bilateral calm movement helps the brain. It helps to nervous system to regulate.

You know, there's, I guess we're talking about cold plunges, but industry is totally filled with like these quick fixes and optimization hacks. And I'm curious from your perspective, what do most people kind of misunderstand about lasting transformation?

How do we create that? And what is, What is it? What's required to have a true shift in the pattern? I think most of these programs, they operate on the assumption that the baseline is stable.

So do more, you know, push harder, change your mindset. But the problem isn't discipline and mindset most the time. The problem is nervous system activation where the person is not performing at their best.

And on top of that, you know, the compounds with hormonal shifts that we see in stressful situations in people, whether it's their thyroid function, or whether its testosterone, estrogen, progesterone, it could be inflammatory issues.

So all of these things need to go into account. And so do you recommend that people get labs done and work with the provider to replace those hormones or how do that?

Yeah, absolutely. Before implementing any sort of mindset program or biohacking, cold flange, they definitely should work a physician to better understand their physiology and optimize their physiology before spending thousands of dollars on these programs.

I'm curious, you know, I am sure you've seen the spectrum of how people interpret labs, right, even thyroid hormones.

Breathwork and Cold Exposure for Regulation

If I have a patient whose TSH is over 2, I'm asking them questions about hair loss and weight gain and constipation and feeling hot or cold. I'm looking to understand, you know, is there an impact of a dysregulated thyroid on this person, even though their labs are within the normal range?

So, and also with estrogen and progesterone, there's quite a wide range of normal, right? For cycling females, their estrogen, pro gesterones, they are swinging between quite extremes throughout the month.

So how do you help someone navigate what's normal for them versus what within normal the range. Absolutely. So to me, normal range is typically an average, right?

It doesn't necessarily apply to high functioning individuals who are working in stressful environments. We typically have to account for that. For instance, I agree with you, TSH over two, we need to ask more questions and also we needed to do more testing looking at T3 and T4 to kind of get a more holistic picture of their thyroid function and really treating the person in front of us as opposed to the number.

Because if they are having hair loss, eyebrow loss cold intolerance, weight gain, we know these symptoms are directly linked to how well their thyroid is functioning.

And most high performers because of stress, their Thyroid isn't functioning properly. whether it's at the thyroid gland itself or where the T3 and T4 conversion takes place.

So I 100% am with you. Normal doesn't mean optimal. We have to optimize these things, especially after 40. And for someone who's recognizing themselves in this conversation, they're feeling chronically stressed, overwhelmed, and stuck despite doing all the right things.

What are the first practical steps that they would take? We've talked about breath work. We talked even cold plunging. we've talks about getting labs done.

Is there something else that we're missing in there? Yeah, I highly recommend going to my e3method.com and taking the ACE and the AAE assessments. These are all available for free.

There's also a free PDF copy of my book that people are interested in learning more about how everything just kind of connects and how they can work with their doctor along with the mental health professional coaches event to optimize not just their performance, but also their physiology and work on identity as well as trauma healing.

That's fantastic and so hopeful. Before we wrap up, I always like to ask everyone personally, what brings you the most joy at this phase of life?

Labs, Optimization, and Practical Next Steps

At this stage of my life, my work and my children. Yes. Well, I also have to add my pets, otherwise they're giving me side eye over here. I have two dogs and two cats and they bring me great deal of joy.

You've dedicated your career to helping people reconnect with their health and resilience. What are your daily practices to maintain your own health? First and foremost, breathing.

Waking up in a state of calm. Not jumping on my phone, even though it's very tempting. I want to see what's going on on social media. Want to check my email.

See what is going in the world. But no, first I have to say no. Let's connect. Get the nervous system in calm state. what I want to accomplish for the day, what kind of day do I wanna step into.

And when I make just a few minutes, it doesn't even have to be a long, you know, stretched out hours. It can be just few of intentional breath work, long exhale, and setting it in tension for a wonderful day.

I think it goes a along way. Thank you so much for joining us today and sharing your perspective on how deeply our nervous system influences every aspect of our health, from our resilience and relationships to our leadership, our caregiving, and the health of brain in particular.

I think one of my biggest takeaways from this conversation is the power of breath work. You know, as you were describing it, I was doing it. I extending that exhale, and I've heard this before, but it's the reminder really that it is not about adding more or trying harder.

It's really about coming back to some of these things that we know and these practices that you know benefit us. And also understanding our biology that's potentially driving our behavior and creating the conditions for our nervous system recovery, right, with that hormonal balance.

And yeah, then doing the work that it takes to feel safe enough to heal and adapt and to thrive and resolve things. Yes, I agree 100% beautifully for it.

Thank you. Well, to all of our listeners, thank you for joining us. And if today's conversation has resonated with you, please be sure to share this episode with someone else who can benefit from it, as always remember that it's never too early or too late to invest in your own brain health.

Daily Practices, Joy, and Closing Thoughts

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Until next time, keep thinking well and aging on purpose.