How Stress Changes The Way Your Brain Fires. Transcript

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Introduction and Podcast Mission

Hi there. I'm doctor Amelia Scott Barrett. I'm a neurologist and specialist in headaches with a background in functional medicine and biohacking. My own personal journey has brought me to truly understand what it means to live with migraines.

So I know that what we all really want is to heal from those underlying conditions that are causing the headaches, so that we can get back to the life and the people that we love.

Because of this, it's been my life's mission to empower others to take charge of their health. Join me today as we interview leading experts to uncover the latest cutting edge medical techniques and the most actionable health insights to power your health journey.

This podcast is reaching you thanks to Doctor Talks. Doctor talks aims to empower 1 billion people to get educated about their serious health conditions.

Visit them today at Doctor Talk's dot com slash calendar to learn about upcoming summits. Hi everybody. Welcome to the Reboot Your Brain podcast. I'm Doctor Barrett and I am so excited about our guest today.

Doctor Irene Cobb is going to tell us a little bit about what's going on in the brain when we are under stress and what we can do about it. Doctor Irene, so glad to have you here today.

Thank you so much for having me, doctor Amelia. So let's start. Tell us a little bit about your very impressive background.

Guest Background and Stress Overview

Oh, well. Thank you. I am a medical doctor. I am a doctor of chiropractic, and I am the CEO and founder of the Stress to Success Shift Institute. Wow. Okay.

It must have been stressful to get all of those credentials. All right. Anyway, can you tell us a little bit about the effects of stress on the brain?

Great question, doctor Amelia. And it all depends on what phase of the stress cycle you are in, as well as how effectively you manage your stress. So to start, I'll give a really quick overview of the phases of stress and what your brain goes through in that time.

So in the very beginning when your brain first perceives a threat, right before you are even consciously aware of it, your hardwired stress response kicks into gear.

It's milliseconds. And in that time, you go into whatever hard wired response you have. Just like animals, we either want to run away, we want to fight.

We want to. We freeze and pretend, you know, hope they don't notice us or we faint and play dead. And no matter which of those, we still have, the common physical responses in our body and in our brain.

So in our brains, you're what I love to call your executive rockstar team. Your prefrontal cortex gets wiped off line because that's not the time to think.

So your prefrontal cortex is what's in what's needed for thinking logically, coming up with creative solutions, making good decisions, acting on those decisions, and also regulating your emotions.

How Stress Affects the Brain

So that's a very first thing that gets wiped off line. At the same time, the parts of the brain that are involved in focused, right. It's like you get like hyper focused, hyper vigilant.

You're almost like tunnel vision is like you're focused on that, that one threat, your pupils dilate and and blood rushes to your brain as well as to your muscles.

All of this happens without you even realizing it. And it happens within, like, as I said, milliseconds. Now, if the threat goes on, say you're being chased by a sabertooth tiger and they're not giving up, it's like you have to go into the marathon stage.

It's like, I gotta keep going. I gotta keep going. You gotta keep going. Your body releases cortisol hormone, which is kind of like think of medium octane, your energy, and it impacts the brain by spiking your blood sugar.

Right. Because it wants to have sugar for your brain, for your muscles, for the fuel. It it as a side effect unfortunately ruins your stress, your sleep so that you're more likely to have sleep problems, whether it's racing, mind going to sleep, whether you wake up in the middle of the night or just even that you're just not getting a restorative sleep, that is all part of this.

And it also impacts your metabolism in multiple ways, so that you'll likely find that you're gaining weight. Most people under stress tend to gain weight.

Some lose. That's it. But the vast majority actually gain weight. So that's the middle term. If it goes on too long, you hit a stage where you've run out of energy, you've run out of of of all of the tools in your arsenal and in your body.

That's called adrenal exhaustion in your brain. It's like it's like the lights are gone. It's like the lights are out and you got nothing left. And so the very important thing to understand is that while all of these effects are what might happen, I'm going to just show a quick image of what's called functional MRI, which actually measures your blood oxygen levels in your brain on and in as colors in your brain.

So for those of you not watching the actual video, I'm showing here a picture of two brains, one that is under stress and not coping so well, right? It's like full on in in in stress response mode.

And that is actually where you might find yourself with risky coping mechanisms like emotional eating. Binge drinking or doing drugs or whatever other coping mechanisms might be addictions, it might be retail therapy, right?

Whatever makes you feel good at the time is is what you'll jump to as as a way to make your feel yourself, feel better and kind of give yourself a momentary like, you know, up for your energy, right?

Whereas the good news is that you can learn resilience, coping skills that light up your prefrontal cortex again, which means that you can think straight, you can think logically, you can make good decisions and you can act on them.

And you're not falling off and slugging somebody because you're angry at them. Wow, this is amazing. So what I'm hearing here then, is that when we are under stress, a part of the brain called the prefrontal cortex goes offline.

And it sounds like that's kind of the state of our higher human cells.

Signs of Chronic Stress and Burnout

But what you're saying is based on this MRI research, we can actually learn technique that will keep our prefrontal cortex working for us even during those times of stress.

Is that right? The and it's those resilience tools. Resilience just means how easily you adapt as well as it's it's also

how confident you are in how you can handle and effectively manage stressful events.

Curveballs, as I like to call them. Right. Because life is always going to throw curveballs, trauma, adversity, and it's how well we respond to them. So it is first and foremost about understanding that you're not bad, stupid, or lazy when you have that initial knee jerk reaction.

It's your hardwired stress response. And then understanding that very shortly, within seconds or minutes with training, you can bring your your thinking brain back online so that you can effectively manage the situation and control it.

Yeah. So this is super empowering information for people. And so what I'm curious about is this how do people know if they may need to develop these tools?

In other words, how do they know if they're having these symptoms of stress on the brain? Are there are there symptoms that people get that can tick them off?

Absolutely. So what I see with people, because when they are under stress, they they don't necessarily realize, in fact, many of my elite performer like high achiever clients would say, I'm not under stress.

This is just normal for me, right? It's kind of like, I know you're a specialist in headaches. That's like saying, well, I only get normal headaches, right? Yeah.

Great. So so the symptoms that people and I'll say signs, you know, like the numbers family members might say like so they might feel anxious. They may feel overwhelmed.

They may feel like they have brain fog. They their memory goes out the window. It's like they'll be. It's kind of like standing in front of the fridge, you know, wondering why they went there in the first place.

Sometimes they even feel like they're losing their marbles. Like, am I getting early Alzheimer's? Because I can't think of words. I, I can't remember what I did five minutes ago, and I have to go back.

Did I lock the door? Their sleep is is poor. Whether they're have a racing mind and can't get to sleep, or whether they're waking up in the middle of the night, at any rate, they're waking up exhausted, which is another symptom that they may not attribute to the stress, where it's just like, why am I so tired and I need another coffee?

And oh, I better have that donut to go with the coffee because I need more energy, right? Which causes like a whole nasty cycle that we could talk about.

Other times, they can't get motivated. They can't get motivated. They are. They may be like grind to a halt and, you know, they're the couch potato or they're they're distracting themselves, you know, mindlessly scrolling Instagram or Facebook so they can't focus.

They're they're exhausted. They feel like they have low energy there. As we mentioned in the first question you asked me, they're they're gaining weight, especially that troublesome belly fat that feels and looks awful.

And so they're they're feeling crappy about themselves and wondering like, why am I gaining weight? They have cravings for their comfort foods, which goes back to that donut, right? Because they have cravings. Measure.

Your brain is telling you that it's like you may be starving to death. I need you to eat right?

Quick Resilience Tools for Stress

So there's the emotional side of I want to feel better, but then you're actually having cravings for those very foods, high carb foods that will give you that that increase in sugar for your your brain and your muscles.

Wow. Yeah. So that's a lot more going on. I think most people would just sort of automatically think stress feels like, you know, racing hard, things like that.

But you're describing so many other things, that people might go to see their doctor for. That really can all be traced back to stress. That's good to know.

So what can people do? Once they're in this situation? Do you have any sort of quick tips for us? Slowly. So as I said, when I showed the the that amazing picture of the functional MRI, you can train your brain and your body to be more resilient and and one of the favorite ways that I teach people that takes only seconds is that your actions create your feelings, and that means that your body language sends a message to you, and especially to your brain, telling you how to feel.

So, for instance, if you're smiling, it activates the smile muscles and sends the message up to the brain. They're happy. So it's not just the other way where you feel good and and so therefore you smile.

So literally. I will have clients stick a pencil between the teeth like that. Exactly. Right. Well, no matter how bad you're feeling, it puts you into that smile position.

And not only it may make you laugh because you're feeling kind of funny about it, but I literally teach this to whole families. Like they'll and and the whole family has permission to stick a pencil on it.

You do the same thing when a lot of much of resilience is knowing that you have the confidence, the self-belief, that you've got what it takes, no matter what is thrown at you.

So there's a really good reason why the military and a military spend so long with new recruits, teaching them posture. Right. Shoulders down, stand up.

Sit up straight, chin up, gaze straight forward. And you going to add a smile on it, right? Because that is sending the message to your brain that I'm confident I've got what it takes, no matter what, even if it means racing headlong into the heat of battle.

Wow. Yeah. Wow. Well said. So do you have any, resources for us? So maybe we can sort of figure out, you know, where we're at with all this and what we can do?

Absolutely.

Stress Risk Assessment and Closing

One of the most important factors is awareness. I always say awareness is 80% of the battle. And the solution. And as we just mentioned, so many people don't even realize the level of stress they're under and how it's impacting them.

So I created the flame out syndrome risk assessment. Now flame out syndrome really quickly. Is that created a catastrophic level of of burnout. And a burnout usually think, you know, thought of as just mental and emotional feelings.

This is where you are about to crash and burn physically, mentally, emotionally on all levels. And and so that is a very in-depth, comprehensive assessment in for all areas of your life that determines your risk of developing severe illness.

So you may be very resilient and and score low. So you're at low risk of severe illness or injury. On the other hand, it may tell you that you are at serious risk for flameout syndrome and you're about to crash and burn if you do not take immediate action right now.

So we it literally goes through all of those. There's I think there's over 100 questions. So it's very, very

comprehensive looks at every area of your life to determine whether you need how well you are doing with your resilience and how much action you need to take right here, right now.

Wow, that sounds amazing. How can people get Ahold of that? They can go to Doctor Irene dot life forward slash flame out. Quiz flame out is the words flame out.

Quiz all one word. Love it. Okay, well thank you for sharing that. And I am sure that that will help raise awareness of flameout syndrome and what people can do about it.

So Doctor Irene, thank you so much for being here today and sharing your expertise with us. I deeply appreciate it. Thank you. This has been it's it's what I'm passionate about.

So thank you very much for allowing me to help. Thanks again and bye, everybody.