Introduction and screen-time context

Welcome to the Restore Your Mitochondria conversation. I'm your host, Laura, for Ontario. I'm bringing you experts to help you boost your energy and fix your health so you can build the life you love.

Today, my special guest is August Brice. Hi, August. Welcome home. Laura. Thank you so much for having me here. I'm so excited. This seminar is amazing.

I love the mitochondria. We're here. We're bringing you on today because we want to talk about how screen time and blue lights are messing with your mitochondria.

This is very relevant conversation. It's happening to adults. It's happening to children. And this is a big, a big reason why people are feeling low energy brain fogginess and having all kinds of, low mitochondria functioning symptoms.

So you're an expert on providing straightforward solutions to live safer and healthier in this digital world. And you do this so that people can enjoy the tech that makes life easy, convenient and connected.

So we're not saying throw everything out, but we're sharing how to do this in a smart way that doesn't hurt your health. And you're the founder of Tech Wellness, a digital wellbeing platform.

It's based on research backed solutions for living mindfully with technology. You host the thriving with technology podcast, featuring experts exploring technology's effect on mind, body and spirit.

And you're an expert on the effects and mitigation of electronic, electromagnetic fields. As the EMF instructor for the Digital Wellness Institute. So welcome.

And we're so excited to have you here. Thank you. Thank you, thank you. I hope that that I can give some good information on how people. Because screens are not going away.

Yeah. They're not. So, let's talk about that. They aren't going away. In fact, we're getting more and more of them. And so what are some of the stats, on screen time.

Right now? How how much time are we spending on screens? Well, you know what? This was really this was before the pandemic. Pew research always runs out and tries to find, you know, as year by year by year how we're changing regarding all kinds of things in our culture.

And so they asked thousands of adults how much do you use your phone? And 85% of them said that they go online every single day. And 3 in 10 actually said, I'm on my phone constantly.

So that's a really good indication. I think we now, I think we all know that we're probably using our devices too much. But there was another study where thousands of parents were asked, if they thought their teens were on their phones too much, and the teens, as were asked if their parents were on too much, and 72% of parents thought that their teens.

And what do you think it was for the parents thinking that the kids thinking their parents were on too much? Probably higher. Now it was only 51%. Isn't that interesting?

I thought the exact same thing. But of course, the pandemic has just exacerbated all of our use, and I think we're all getting used to it now. We're all becoming so much more, you know, apt to to look to our screens for everything, for our information, for our friendships, you know, for all the things that we learned to do in the pandemic.

And that's just not going away. It's not lost on me. The irony of this right now that we are on a screen teach. Right. And and we're doing a talk about reducing screen time.

And so I mean, this is that this is what we're faced with. The information that we're sharing right now is critical and it's how we get it to you. So screens aren't going away.

And it's completely ironic that we're doing this right now. Yeah. And so and you brought up just safer ways to use the screen.

Screen time, cellular health, and mitochondria

And so here we are from time to time you'll see me put on my blue light blocking glasses because it's a safer way to use my screen. So I've eliminated some of the blue light about 40%.

These clear ones do that. And so that's one way. Another thing that I've done is I've put flex, which takes the blue light out of the screen with software.

So there are things we can do, but still we need to limit our screen time for many different reasons. And you know, it's so funny, Laura, because, the American Pediatric Association and the World Health Organization, they've set limits, but really just for our kids.

So we know, you know, we know that we should not be having our children sit in front of a screen at all. I think before three it goes between 2 and 3.

And I say, no more than an hour until they're six years old. The World Health Organization says for the American Pediatric Association says five. But I think the more we can wait, the better off our kids will be for developmental reasons.

For physical reasons. But there's really no consensus on how much time adults should be online. But there's a brand new study out from Arizona State University, and I found this really fascinating.

And we can talk about it more in a minute. But that screen time was shown to have cellular effects. It's the first study of its kind. It's really. Yeah, it's I'm really curious.

I'd love for you to shed some light on how screen time, affects your mitochondria. And we're talking about cellular health. Mitochondrial health. So tell us a little bit more about that study, and how it is affecting now the study is really interesting because they only had 60 people in the study.

However, they had students report whether or not they had more than 75 minutes a day of screen time, which of course is probably average, right. Or 75 minutes or less than 75 minutes.

And they found really extraordinary correlations. But they I'm going to I'm going to go to the study and I want to read it to you. Okay. I want to read what they said, because it was kind of, fascinating that this is a pretty big deal.

But yet the study size was so small. So hold on, let me find it. I put it over here. I should have been a little bit more ready for this, but okay, so here's what the author says.

She says that knowing that the microbes respond to our behavior and what we do matters for them as much as what they do, the microbes matter for us that we should think, okay, well, if I don't care about screen time for myself, maybe I could think about what it's actually doing to all these tiny little partners that share my body space with me, because she said that high screen time was predicted to be significantly associated with type one diabetes, obesity, chronic fatigue syndrome, and various manifestations of inflammatory bowel.

I mean, that's that's saying a lot for one new study, the first of its kind, only looking at our cellular health regarding screen time, it's still pretty significant, right?

Totally significant. And I'm even surprised that that study has made it through, because there's a lot of reason for tech companies to block information like this coming, coming out.

Right. I guess maybe that was published in Nature Scientific Journal. Yeah, yeah. Which, you know, that has a lot of credibility, right? Yeah, yeah. Can you does this say anything about the psychological impacts of screen or screen dependance? Can we can we talk about that?

Because I know that I see it in my own family members. When you, try to get, you know, a family member off of their phone or their screen sometimes get angry and frustrated and short tempered and snippy, and it just feels like an addiction, like taking alcohol away from an alcoholic.

Yeah, well, there's tons of research that's pointing to higher amounts of screen time being associated with mental health problems, namely stress, addiction, like you were talking about.

And there's it's interesting because our, American Psychological Association has only called gaming addiction an actual diagnosis, meaning you can get help for it and insurance will pay for that help.

However, all of the other addictions social media addiction, internet addiction, game, shopping addiction, those aren't really categorized as addictions.

But we know there's things like Noma phobia, which is fear of being without your phone.

Mental health, phone dependence, and digital detox

And, you know, a recent study out of brain said that there were in this meta analysis, they did 7% of the population has now a phobia fear of being without their phone.

Oh my gosh, I'll just tell you. So we were together a month ago and we were at a we were at a retreat together and we went to the, to the Olympic Park in Park City.

And remember, we got on got unchartered that much Philip that I like my phone in my hotel room. Actually, I thought I had lost it. I thought I had left it, like at the place where we were boarding the busses.

Turns out it was in my hotel room. But I will tell you that it was very surreal to be disconnected from my phone that whole time. Because we were there, we took chartered busses.

I couldn't even, like, call an Uber to take me back to the hotel to go look for my phone, so I just had to be without it. But it felt very disconnected and almost like, oh my gosh, what if I have to connect with my family?

We don't even know our family's phone numbers anymore, thank goodness. I know my husband's because I've been with him since before. You know, cell phones were our whole life, but it was really strange and I wouldn't say I was Noma phobic, but I was definitely feeling off and I had to force myself to shift and say, okay, you're here to have a good time.

Let it go. If the phone is gone, you can just go to the Apple Store and buy a new one tomorrow and it will, you know, all your information will get downloaded on it from the cloud, so don't worry about it.

But it was crazy to be disconnected from it. Well, you know, that panic and that stress that you feel well, that the process that's going through your body and, University of Cal State Dominguez Hills, I believe it was, did this research where they showed that the more you're attached to your phone, the worse it is.

But you'll your brain triggers your adrenal gland to produce a burst of cortisol that fight or flight hormone. Right. And that causes anxiety. And so that anxiety sets in.

And if it last 15 minutes or more, they found that then people started getting depressed. They had, you know, all of

the sadness and, and the, the down of depression.

And after 15 minutes and then isn't that something? And then I was I just want to share this happened with my daughter. So when she was she's 17 now. But I would say when she was about 15 or so, she dropped her cell phone in a pool and it was like done.

It was gone. This wasn't a waterproof cell phone and the depression that came after that just because it took us, you know, 24 hours to go get another one.

It was crazy. What I witnessed. It was a complete depression. Just what you're talking about isn't that interesting? It's so it's so obvious. And then, you know, physically what that stress, what that extra cortisol is going to do to your body.

We just we don't need it. And so one of the best ways to because I was going to save this for the end. But one of the best ways to help alleviate the Nama phobia.

And that panic is just to try every day, 15 minutes, maybe without your phone, just to start with just a little mini digital detox, because that helps you gain perspective.

And it helps. It's like exercise. It helps your mind and body get used to the idea of the phone not being attached to you, not being inside. And it's really wonderful because you get in touch with the real world and smell different and feel different, and conversations are more meaningful.

But it just starts with a little bit at a time, because most of us feel like your daughter. Honestly. Yeah. You. It's it's nuts. Now, now there's something happening to our sense of self, our attitudes and our general happiness here too. So tell us about that because it's definitely being impacted with social media.

We know that anxiety and stress and suicide is up in teenagers. So what's happening there? Well, you know, it's it's it's so crazy because we all remember that the white House had that Facebook whistleblower testify, because Facebook's own research found that 32% of teen girls said that when they felt bad about themselves, Instagram made them feel worse.

And it's true, we there's so much social comparison and it's just it's a normal thing that we all do online or offline. We can pair up or we compare down.

And so just being mindful and knowing that the social media is going to make us feel that way, it's going to make us feel depressed. It's going to make us feel that we're less than, I think just knowing that and approaching social media that way and, you know, maybe looking at things differently, maybe just following accounts that that make you feel good about yourself instead of feel worse about yourself.

I mean, it's great to be motivated, but when we self objectify, when there's so much social comparison that we end up having lower self esteem and poor mental health and body shame, then we know that we need to step back and take a look and really examine what this device is making us do.

And I love this study. There were a thousand women that were, it's sad to take a selfie. And so at the thousand women that took a selfie, some did not have to post it at all.

Just take a picture of herself. Others posted it, and others had the opportunity to use a lot of filters. So the ones that used a lot of filters felt better about themselves.

They had less stress. But guess what? The people who didn't post it all felt the best about themselves and had even less anxiety. So just knowing that, you know, it's just it makes you approach the whole idea of taking a selfie and posting a selfie a little bit differently.

And you talked about your daughter. I think it's so important that we really arm our children with as much

information as possible about how social media and Facebook and Instagram and Snapchat, TikTok, how all of these things are either going to suck our time or make us feel badly.

And it's it's when we're aware we're so much stronger. It's just a hey, yeah, it's so crazy because all of this, negative feeling that we have, it raises the cortisol levels and it does, affect mitochondrial effects, our cellular level.

So it's all connected. It this conversation is so relevant to mitochondrial health energy production. Right? Yes. Yeah. Martin Picard, he did that big meta analysis of 23 studies on mitochondria and stress and anxiety.

And he found that, yes, just like you're saying, significant adverse effects of psychological stress on our little powerhouses, you know, so it's so important.

And I always say, you know, our phone was designed to make our lives easier, but when it stops feeling that way, put it down. If you feel any palpitations, any anxiousness, any stress when you're running toward that phone.

Social media, self-image, and brain effects

And I know when you found your phone, you probably were having this huge sense of relief. But sometimes, sometimes we wake up and the first thing that we do is turn on our phone.

What's doing? It's triggering the stress of the day. It's triggering notifications of things that we know we're supposed to do, or things that we didn't even remember that we were supposed to do.

It's hopefully not, but a lot of times we're triggering the bad news. So I think one also really simple thing to do is just to remove at least one app a day that isn't bringing you joy.

Oh, that's a good idea. Get that phone cleaned up and smile. It's so simple. It's just so simple. But again, it's just being mindful and knowing that this is a power packed little device, you know?

And it's one thing to be mindful about how we're using our technology. And most of us find that if we have a second of downtime, we're immediately reaching for our phones or tablets or our laptops.

I know I do, being a, you know, I own a virtual business, so I'm constantly jumping on. And so when is the when is it dependance and when is it addiction?

And what does that mean for us? Because sometimes I wonder, like, am I addicted to this computer because I can't seem to get off of it? Well, you know, that's a really good question.

And especially, like I said before, since our American Psychological Association is a calling it an addiction, we're a little bit confused. But, our original screen internet addiction expert was the late doctor Kimberly Young, and she made the Still the Gold Star internet addiction test.

And we have a version of it on our site, so you can walk through it and find out if you're technically addicted. An addiction is very serious, and addiction really requires all of the help that normal addictions need, you know?

So it's serious and okay. Some of the signs of addiction are, you know, if you're lying about using your phone, if you or any device, if you're lying about using your device, if you're lying about how much social media you use, if it's getting in the way of your day to day life or your your job or your relationships, that's a really good sign.

And if you step away from the screen and it's the first thing that you think about when you walk away, that's also a sign. Now that doesn't mean you're addicted.

Those are just sign. So make sure that you go online and take that test because it's super helpful to know, really, you know, where you are on the scale.

But most people now are calling it now that you have to have consumption, which means, you know, taking something that we normally consume just normally and, and in an everyday fashion, and then all of a sudden using it so much that we start to have negative effects.

So that's really the difference between addiction and just what I call being obsessed. So if we find out that we are addicted to it, what do we do? Okay, so.

You know, Kimberly used to talk about really, really heavy addictions. And there are, you know, centers that you can go to addiction rehabs. But I think a lot of parents, especially, are sending their children to camps that where they're just not with their phone for a couple of weeks.

And that's really what we can do for ourselves, too. If you really, really think that you're having addiction, then of course you're going to need you need to redirect your brain.

That's absolutely what you're going to do. You're probably need some professional help. You'll need some talk therapy. You might need to get away, but if you just think you're obsessed and you want to get a hold of it, the best thing to do is that daily digital detox.

And then on top of that, do a day a week. Because that way you build up your muscles to say that your mental muscle to say that yes, I am in control of my screens.

They are not in control of me. So those are really the best things you can do. We have little tricks. Turn your phone to grayscale so it's not as enticing.

Which means that when you look at your screen, it's all black and white. That's helpful. Like I said before, removing an app or taking away the notifications because another really interesting study is this one by the University of Texas that is called the mere presence of.

And it, it, had 1200 people in the study and they were given a little task to do, and they rated, you know, how much they left their phone or if they can live without it.

And they found that the people that love their phone the most had the most difficult time. But what they found was if the phone was off and turned over, but sitting right next to their computer, it was taking up so much cognitive space that they couldn't perform the task.

And it wasn't until the phone was outside the room turned off and in a purse or a backpack or a cubby that they were able to have complete focus. So if we know that we're so distracted by them, that's another reason, I think, to take a little bit of a break and one of the ways that a lot of people take a break is to make sure that they don't charge their phone in their, in their room, a as soon as they come home, maybe they drop it in a basket and it's a charging basket and it stays there.

And again, they're exercising that mental muscle of control. I know the crazy thing these days is we don't have house phones anymore. So if somebody needs to call you up and tell you something.

Yeah, it's a cell phone. So I mean, you you right. You 22. Right. Stick the phone in the basket and shut it off. And then are you willing to be basically out of pocket for the rest of the day?

Right. Are you are you are you willing to not have people be able to get Ahold of you when you're. Some of my most freeing moments are when I get home from doing something and I just don't ever take my my phone out of my bag, and it just stays there for 2 or 3 hours.

And it's so wonderful to not be connected to it. But then once I pick it up again, it's like all these people are talking to me and sending me like, hello, I've been messaging you like this whole instant gratification thing.

Like, if somebody messages you, they expect you to answer right away. You gotta train people up that you don't do

that. Right. Well, I used to have a whole video on setting the Do Not Disturb function, and that's what I would say.

Hey, I'm taking some time for myself. I'll get back to you in ten hours, 24 hours. But now iPhone has the focus built right in. So you go in and you can turn on focus on your settings.

Then any time you place focus, you can have a personal message that says just that.

Addiction signs, focus tools, and attention management

So they're making it easier and easier for us to I mean, that's what the focus thing was on my it is I've got a little tutorial on how to do that. So we go the does it shut down notifications and stuff like that.

When it's on it, you can have a breakthrough. It can break through if you want it to for certain people. So you can set that up. But the nice thing is, is that you set focus, and it just lets people know your standard message that you know, that you're busy, that you're taking time for yourself, that you're spending time with your family.

You know, all this good things. But when you were saying something a minute ago, oh, about about, the addictions and the focus and I forgot to mention that there are really excellent studies that show that we have, we don't know if the screens gave it to us because we don't do a scan and then give someone a screen and see if they have less white or gray matter in their brains.

Yeah. So that would be that would be right. But we do know that less gray and less white matter correlate higher with higher screen. Yes. So we actually are affecting our brains in the most profound way with our screens.

And it's really profound because, you know, having less gray matter also, you know, relates to depression, Alzheimer's, alcohol addictions, all those things.

So so it's really important that we save as much of that matter as possible, right? Yeah. I think it's a good thing that I still like to curl up with a real paper book.

I do not like to read my book on a device. Even a, you know, device has come a long way and you can read. You can have a device that doesn't have a backlighting and all that.

But I still don't like it. I like to dog year. I like to underline, I like to go back and flip through and and put forward. And so yeah, there's nothing like a real paper book.

That would be a good therapy for your brain to just to get a real book. Absolutely is. And you know what? They there are studies that show that you have 30% greater retention and understanding when you read the book, the paper book, like you're talking about versus reading it on screen.

And some people think, well, it's because we're just taught through texting to just, you know, go fast and just try to get the details or that it's the way our eyes look across the screen versus the way our eyes look across, a book, I think that was fascinating.

So, can you talk a little bit about, what screen use is doing with hand eye coordination? You did touch on white and gray matter changes in the in the brain.

So there's some physical effect when we overdo something. And we're overdoing our screens. Well, he now I think that a lot of us, a lot of parents especially I was this way.

Maybe you were too, that the first time that your child played a game online or watched them maybe a little bit too much playing those games and you thought, well, this is good because at least they're developing their hand eye coordination, right?

That's what I thought. That's like the big lie, right? I'm sorry. Sort of. So I was speaking to social media researcher,

doctor over drought, and I asked him that question and he said, honestly, we have studies and it shows that you need a 1.5 hours per week to develop and keep that hand eye coordination from gaming.

So it's okay. Right. It's not it's not saying it doesn't work at all, but it's saying that we're probably doing it too much thinking that oh there might be benefits.

And you know, and I did want to mention that study when we were talking about, that map of time a study recently came out from, oh my goodness, I can't remember the name of where it came, but from, oh, University of Colorado and they said that it isn't so much about the time that children use their devices, it's more about what they're doing, because they found out that kids that had a lot of screen time had better relationships.

But you know what? At the end, they wrap it up and they say that they found a moderate connection with higher screen use and depression, focus, focus problems and ADHD.

So yeah, and I would say connecting on screens is not like connecting face to face. I find that today's teens have a really hard time with face to face relationships, because they're so used to doing everything through a text.

It really affects your ability to read, body cues and non, you know, nonverbal language, non written language. They're not so good at it now. And they're finding that really what's being effect affected is our level of compassion.

And they did this great study at UCLA where they had all these markers of compassion and then they take people and it's adults and kids go out to the desert for five days, and they come back and the skills have changed completely because they have been with people and they have been without devices.

Oh yeah, that's you're right. I've done those. I've done trainings before, emotional intelligence workshops and trainings where you're in the training room for, you know, 12 to 14 hours a day without a phone, right?

It's turned off, it's put away, and you're just in deep connection with people actually looking in people's eyes and reading body cues. And, and you feel so good after that.

There is no better feeling than human true connection. So. Right. Gazing in somebody's eyes for, you know, two minutes straight, people can't do that these days.

EMFs, blue light, and safer tech habits

They find it very uncomfortable and touch just feel all the mitochondria, just like being so healthy. And then they just start buzzing. Everything's okay.

So, I'd love to. In the last few minutes that we have here in this talk, I'd love to, tap into your brain a little bit about Emfs. So you've been studying Emfs for more than 20 years.

You know, we're talking about the we're talking we've been talking about devices and blue light and all of that and how it's affecting us at the cellular level.

But, emfs are are also very much, influencing our cellular health and causing mitochondria problems. And all kinds of chronic diseases. Absolutely are so true.

You know, I found out a long time ago that I had electromagnetic hypersensitivity syndrome, which means I can feel the energy. And so a lot of people don't.

But there is actually an invisible energy that's powering your wireless devices. And it's called electromagnetic radiation. And we knew 20 years ago that that radiation could actually weaken the blood brain barrier.

And that's so important because, as you know, that's where our brain gets its nutrients and hormones and, and everything that we need. And we let toxins into our brain just by virtue of that invisible radiation.

So that's another reason that we should be away from our devices as much as possible, as much as we possibly can. And to utilize airplane mode, and to know that every source of radiation is just a little bit more.

So your Bluetooth is more. Your Wi-Fi is another signal, your cellphone is another signal. So any of those signals that right now you can turn off on your computer or your phone is going to be helpful to your brain because also there's a study that shows that radiation actually damages the mind on the myelin sheets of, the white matter.

And they found this from five hours a day for 12 weeks. And they also found in the same study that, of course, they weren't using people. They were using rats.

And they found that the rats displayed hyperactivity. And that's not the only study showing hyperactivity. They, I spoke with, Kessler Devin, and she was a researcher is a research scientist that found out that just 30 minutes a day affected the melatonin levels of rats and cut it virtually in half.

And so melatonin, as I mean, most of us know by now, is really important for our sleep. It's a hormone released by our pineal gland, and it just helps us feel sleepy.

And if we don't have it, it makes it so much harder to get to sleep instead of sleep. So we know that it's that radiation that's affecting the melatonin in our bodies.

And also, she saw cell death in the brain and she saw what she said was crazy anxiety in the rats. And what they did was they put a cell phone, the cell phone that was generating real electromagnetic radiation, not pulses, but actual radiation from the phone up against the cage.

And she said they would take it away because it was only 30 minutes a day. And every time somebody came to what that phone in the rats just went nuts.

And I bet they ran away from it like tried to get away. She, that's what she said exactly. She said they all ran to the opposite side of the cage. Yeah.

And you know we've seen their studies of electromagnetic radiation stunting growth of plants. Right. There's, that's the, that's the, that's the test you can do in your classroom.

Right. The Wi-Fi. Right. Yeah. The sprouts next to the router. Yes. Yes. And they don't grow. Yeah. They're very unhappy. Yeah. So yeah, one of the worst things you can do is have that router in the, you know, space where you're constantly at, right?

So in your bedroom when you're sleeping or right next to you in your office where you're working, you really want to try to get it away in some kind of nook and cranny of the house where you're not hanging out all the time because distance is your friend, right?

August 1,000% been saying that for 20 years. Distance is your friend. And when it comes to the Wi-Fi, it's about 30ft. When it comes to your phone, it's about three feet before you're really at a quote unquote safer distance.

So that's why use air to wired headsets so my phone can be three feet away. I have a switch where I turn my Wi-Fi off at night, actually, to be told I don't even have a Wi-Fi.

I have my entire home hard wired. The thing that we used to do before there was Wi-Fi, it's faster and it's healthier for you. It's great. It's safer.

It's faster. Just like you said, it doesn't break up or break down. You never have to say, oh, that's my connection because it isn't there. Yeah, it's tricky too, because, you know, with Wi-Fi now people have their home alarm systems are also wireless.

And if you shut off the router, you should have the Wi-Fi at night. Your alarm system is now off. So you'd have to

hardwire your alarm system as well.

All right. It's my number one question. You're absolutely right. I think Ring and Nest introduce this way of living that we thought we always had to have at the camera.

And so now we're very used to that. We all want a security camera, but I do I have found one, that you can hardwire and very simply hardwire. If you have any Wi-Fi access points or plugs in your home, you can wire up your security camera.

So that's good to know. Well, tell us where people can get Ahold of you. Where can they find your work? Where can they learn more from you? Where can they find that quiz you were talking about?

You can find the quiz on Tech wellness.com, and we'll put a link to that. And then also on Instagram every day I try to do a tech wellness way, which is just one simple thing that you can do to make your technology safer and make your life a little bit healthier while you use your technology.

And then there's Facebook and LinkedIn. But I really love it. If you came to Tech Wellness and visited our site and saw the information and the solutions we have.

So wonderful. Thank you so much for contributing to this talk on mitochondria and energy. This has been so valuable today. We appreciate you. Thank you for doing this, Laura.

Yeah, you take good care now I guess.