

EPISODE 153

[0:00:00.3] AV: Welcome Paleo Nation. I'm Ashleigh VanHouten and you're listening to Paleo Magazine Radio, the official podcast of the original Paleo Lifestyle Publication.

[INTRODUCTION]

[0:00:18.3] AV: The internet, the cause of and solution to all of life's problems, am I right? Wi-Fi is basically everywhere these days and it's pretty convenient. Most people think that's a good thing but wireless radiation can also be harmful especially to young people and those who are sensitive to it and it's a good idea for all of us to educate ourselves about the pros and cons of our increasingly wireless world. Today's guest is going to help us with that.

Alison Main is a freelance writer who focuses on environmental health and illness, wireless radiation, electromagnetic safety, chemical safety, and technology addiction. She's also a regular contributor to Paleo Magazine. In our chat today, Alison explains exactly what EMF and wireless radiation is and why it can be harmful. She talks about the sneaky ways it can show up in our lives and most importantly, she provides easy ways we can reduce our exposure to wireless radiation right away, while also easing off on that pesky technology addiction that many of us are guilty of.

She reminds me that maybe sticking my cellphone in my sports bra at the gym isn't the smartest thing in the world. Go figure.

But, before we start, let me take a minute to talk about the sponsor of today's show, Restorative Blends. The company offers two products; Armor is a powdered green blend of super foods and antioxidants to help boost energy, promote detoxification, and support your immune system and it's gluten free without the barley, wheat grass, or oat grass you might find in other green drinks. It's great on its own or mixed into your smoothie to get that extra boost of greens in your diet.

The other product, Clear Mind, is a nootropic supplement developed with ingredients that help with focus, memory retention and cognitive capacity. I've tried Clear Mind myself and I will say when used consistently, it definitely had a positive effect. I had better focus and I think I had a

more even mood in general but you don't have to take my word for it, even folks like Robb Wolf, the author of *The Paleo Solution*, has had positive results. To learn more, go to restorativeblends.com.

Time to sit back, relax, power down, and listen to my chat with Alison Main. Paleo magazine radio starts now.

[INTERVIEW]

[0:02:48.3] AV: Hey Alison, welcome to the podcast.

[0:02:50.7] AM: Hi Ashley, thank you.

[0:02:52.7] AVH: How are you doing today?

[0:02:54.6] AM: I am doing well, how about you?

[0:02:57.3] AVH: Not too bad, we had a little bit of a dump of snow here in New York so I'm kind of digging myself out from it but, you know, it's sunny today and I think it's only going to get better. So no complaints.

[0:03:08.1] AM: Yeah, actually, I'm in suburban New York right now and so yeah, have the same amount of snow.

[0:03:14.7] AVH: Probably more actually, I would imagine.

[0:03:16.5] AM: Yeah. All the kids who live in the neighborhood here were so psyched because there was no school for the first time this season.

[0:03:23.8] AVH: I mean, we can't complain. I feel like this is the first real snow we've actually had and it's mid-February now. Alison, you were just in the February/March issue of Paleo Magazine talking about wireless tech and, you know, how it's harmful for children and it can be harmful for their development and host of other things and what parents can do about it. Some

take away steps. But before we get into that, can you kind of just give us a bit of your background and how you came to study this issues and why they're important to you?

[0:03:55.0] AM: Sure. Just like professionally in terms of my background, I have been a writer and a creative director for most of my career, which is almost 20 years by now and just say about five years ago, I found myself moving toward the paleo lifestyle so that's actually what got me interested in sort of natural living and ancestral concepts of what's best for our body and our lifestyle but really, in terms of like why this particular issue became important to me is based on my own health journey just several years ago.

I noticed myself becoming sensitive to different environmental factors and that includes processed foods but that also includes different chemicals and various electromagnetic fields. I just — I'm a researcher and an analytical mind on top of being a creative mind. So I started delving into the research on this topic and connecting go the people who study this, the scientists in the field goes to work to create healthy homes. I learned a lot. There's a lot of research out there and I've just become I guess like specialized I guess you can say in terms of this topic as a writer.

[0:05:18.5] AVH: I think I'm probably a great person for you to be speaking to about this because I'm very ignorant about this stuff so I'm going to be asking you a lot of questions maybe that seem obvious to other people, maybe not. But I guess my first question is, if you could kind of briefly explain what EMF is and also, I'm interested in how one knows that they are maybe hyper sensitive to it.

Like you said, you noticed that you had some issues. It's easy when you're eating something that's bad to kind of tell, "All right, this is affecting me in this way," but how do you know that you're sensitive to that?

[0:05:49.8] AM: Sure, yeah that's a question a lot of people do ask and want to know. Just from a very basic level, EMF stands for electromagnetic field, and just something else, EMR stands for electromagnetic radiation but in terms of EMF, electromagnetic fields, our entire, our earth is made up electromagnetic fields and there are a lot of natural electromagnetic fields that we've been living with our entire lives and generations.

We also have man made and artificial electromagnetic fields and that encompasses our radio frequency range which is you know, wireless radiation, Wi-Fi, cell towers and then there's also lower frequency and extremely low frequency, EMF's and that's like power to your blender, the power grid, lights, and other lower frequency fields.

That's basically a very layman's explanation what electromagnetic fields are, there is a spectrum — this is not visual so I can't bring up like a little diagram but there is an entire spectrum of electromagnetic fields and you know, one end like you'll see like ultraviolet and at another end you'll see just lower frequency fields that we've discussed. That's like a very basic explanation of EMF.

How does one know that one is sensitive to it? There isn't one answer to that question. I think that everybody sort of might have their own personal experience with it, anyone who is sensitive to this has a different story as to how they found out that they became sensitive to this. There are definite biological effects that happen in one's body in response to electromagnetic fields. We are, as humans, bioelectrical beings. Our hearts and our brains run by electrical impulses. So it makes sense that we could be impacted by our external electromagnetic environment.

So there are common biological effects that people may experience such as headaches, nausea, different skin sensations, neurological manifestations, different immunological manifestations as well. I mean, I can't speak to everybody's experience with this but when you are talking about electro hyper sensitivity or electro sensitivity, there is definitely a host of neurological and immunological, biological reactions that people experience and normally, they experience it in the presence of something emitting.

In the case of radio frequency, wireless radiation, someone could experience like their heart palpitating and dizzy, nausea, tingling in the body and when that electromagnetic field is removed if you shut the Wi-Fi router, if you go outside, you remove yourself from the wireless radiation then suddenly those symptoms start to feel better. So it's kind of like almost like trial and error. If you're not sure why you're sick, you test yourself really. I mean, for me, I was aware that I was sensitive to it pretty quickly, I could tell that I was reacting to the wireless router in my apartment and then to other such EMF's. Yeah, that's my best explanation.

[0:09:34.1] AVH: Got it. Hopefully our listeners subscribe to Paleo Magazine and have already read your article but if not, can you give kind of an overview of what your message was there?

[0:09:44.9] AM: Sure. You know, getting back to specifically wireless radiation and that is part of the electromagnetic spectrum. There are thousands of studies out there about wireless radiation and biological effects but what this article particularly deals with are kids and also pregnant women and what parents can do to protect their kids from this new technology that we have.

We haven't been living with Wi-Fi and cellphones and this emitting gadgets for the history of humanity, this is a fairly new technology and what the concern is that children are more sensitive, they are more at risk to potential harm from this technology.

[0:10:38.4] AVH: Why is that? Why are children and pregnant more vulnerable?

[0:10:42.9] AM: Children's brains and skulls are thinner and when you consider like a cellphone up to your head basically. Like the radiation from the wireless penetrates into a child's brain further. None of this technology has been premarket tested on any type of model for a child.

Where the premarket testing has been done is on actually this is an article too, it's on SAM, which stands for Specific Anthropomorphic Mannequin, which is basically a plastic monolog of a head, which represents essentially a 220 pound man and that's very large head, that's a very sturdy head and children and women for that matter are not represented in that model.

When we're talking about a child holding a cellphone up to their head or a virtual reality visor up to their eyes, that radiation is going deeper into their brain and pregnant women were talking about them putting like an iPad on their abdomen and that's not protecting the fetus because the wireless radiation is going from that tablet into the abdomen and penetrating into the fetus. That is why they're more vulnerable.

[0:12:07.2] AVH: Okay, I don't want to give away all the work that you did for the article but what are some of the steps that families can do to reduce their wireless exposure at home? Sure, it's

actually pretty easy. I know that a lot of people think, “Oh my goodness, my wireless.” But there’s like very simple positive steps people can take.

[0:12:27.4] AVH: Good, that makes me happy. Honestly, I have a question that I’m going to get in to a little bit later but it is one of those like you get overwhelmed because it’s like the inevitability of “there’s wireless, there’s EMF everywhere, there’s wireless everywhere”. Anyway, we’ll get to that. I’m glad...

[0:12:43.0] AM: That’s very true because, you know, there is one. We’re living in a wireless world now and I think it’s important to point out that for me in particular, writing this article for a lot of the researchers and those speaking about this topic, no one is — I think this is very important to say, no one is anti-technology. No one is anti-connection like this is all very important, and you know, it’s great educationally to have access to the internet. It’s obviously safe to be able to call someone in a moment’s notice if you’re in an emergency but again, there are definitely like — this is about practicing safe technology. It’s about taking precautions.

In terms of at home, just like taking your home environment. That environment is under your control. You can — the one thing that is most recommended is to prefer and to choose non-wireless connections for your computer, your printers, your mouse, your laptops, your tablets, your keyboards all of these devices are usually nowadays wireless but there are plug-in, corded connections. Like ethernet, I work off my internet using an ethernet connection. Turn off your wireless router and connect it with an ethernet cord.

It’s actually faster because you have a better connection that way and it’s safer because then you turn off the wireless router, you disable the Wi-Fi on your actual devices and then you have reduced the wireless radiation at home but you still have connection. Have the internet. Same thing with your landline at home, I’m not sure how many people have a land line but...

[0:14:30.2] AVH: People still have landlines?

[0:14:32.2] AM: People have their cordless phones usually at home and there are satellite phones throughout the house and those actually emit just as much wireless radiation as — I

mean, I'm not going to speak to the exact numbers but it's a pretty high level of wireless radiation that cordless phones will emit.

Again, if you have a landline at home then just get a corded landline phone. That's like another easy way and I've done that in my home as well. Those are two very big things. To prefer corded, like we always say, prefer corded connections and that's also good to take stock of what is in your home in terms of your devices because, you know, you could have a wireless printer and you're not aware that that's emitting something. Like it's more than just your wireless router.

[0:15:31.2] AVH: What are some other things. I know you just mentioned a mouse, printer, I mean, these are all things that I hadn't even considered. But are there any other things, like sneaky things in the house that are wireless that we wouldn't consider?

[0:15:41.4] AM: Gaming consoles, and this does speak particularly to kids. Any kind of a gaming console nowadays are wireless and so that any of them pretty much are, all the tablets, the E-readers. Let's see; there are some wireless headphones now, wireless speakers and like accessories like that. Then there is a movement toward, and this isn't particular to children, but there is a movement towards the smart home and smart devices in the home.

Your refrigerator could technically be wireless now but we're talking specifically about devices. Baby monitors as well. There are a lot of wireless baby monitors, you can get wired baby monitors, that would be recommended because then you have a very vulnerable baby right next to a wireless streaming device. So I think that those are the main ones that come to mind.

Another important tip is if you're going to take the effort to use corded connections, you need to make sure that you're disabling the wireless function on the actual laptop like it's not — you go to where it says "turn Wi-Fi on", "turn Wi-Fi off". You just drop down, turn Wi-Fi off and employing safe technology also with your cellphone. Don't carry your cellphone against your body like in your pocket.

[0:17:11.4] AVH: I want to get to that next. Next, I know you also talk about what maybe parents can do to take action outside of the home and the larger communities. Again, this kind of goes either to ignorance or maybe just not thinking about it in the right way but I know lots of people

consider having Wi-Fi everywhere a good thing, right? You walk into a coffee shop and they have free Wi-Fi and that's great.

In terms of Wi-Fi in schools and things like that, I guess, where do you find the balance between having as you said, access to the internet and having the convenience of having these things for our children for learning purposes? That's a great thing but then there is this Wi-Fi everywhere that's not a great thing. How do you kind of reconcile that and what do parents do if they do want to take action and in terms of things like Wi-Fi in the schools?

[0:17:58.0] AM: I think, I mean, the overall thought is you're right, there's Wi-Fi everywhere. So when you think about children, they're spending the majority of their time at home and at school. At home, it's all about reducing your exposures; reducing cumulative exposure. While there may be Wi-Fi in the café and there are maybe Wi-Fi in a public park, you can choose to reduce exposures at home. So right there, you're kind of reducing a fair amount of time of where the child is on a daily basis.

Then, in terms of schools, this is definitely, there are movements throughout the country, if not world actually, where parents in many communities are advocating for wired technology in the schools. Because that keeps the benefits of having the technology but it eliminates the hazard.

[0:18:52.0] AVH: Would having wired versus wireless, would one be more expensive? Like would there be any financial reasons why one would be better than the other?

[0:18:58.8] AM: That would be hard to speak to without doing the research like I don't have the financials on that technically so I would be remiss to give you a yes or no answer to that question honestly.

[0:19:11.3] AVH: It would be an interesting thought. We're always talking that finance is the bottom line and if one was more expensive than the other that could be an argument one way or the other but anyway, it would be interesting too.

[0:19:20.4] AM: Sure, I think that there is a lot. Their classrooms can be wired for Ethernet. I mean it is something that is possible to be done and that's something that, individually

communities and states and countries are working on and there are actually some like in the article and HYFA in Israel, the mayor decided that all wireless would be removed from the schools in that particular district after it was proven that there were hundreds of students that were being sickened by the wireless technology. So I guess you have to consider the cost benefit analysis of what's going to become of that many children being sick in a school system versus the cost of wiring the schools as well.

[0:20:13.2] AVH: Right, so here's my horror story getting back to the cellphone thing and again, it's ignorance and you're not thinking about it and now the more that I am reading the stuff that you're doing I am learning and I am horrified by what I've been doing. So I go to the gym every day and I have to listen to my music and I stick my cellphone in my sports bra. Yeah, right? It's bad. It's very bad, and now that I am really learning about it, it's terrifying. But I guess it's just another example that people are literally attached to their cellphones.

It may not be realistic to hope that folks will detach completely but what are some baby steps, aside from the obvious don't stick your phone in your bra, what are some ways to for people who are going to be on their phone, they've got it for work or they are just obsessed with Instagram or whatever, they're going to have their phone on them, what are some baby steps to take to just reduce that exposure?

[0:21:09.2] AM: Sure, that's definitely a good question and that's interesting that you mentioned the phone in the bra because that's definitely been a trend for some women to carry their phone that way even outside of the gym and there had been studies showing a link to breast cancer in the exact same place where women have kept their cellphones in their bras because basically the cellphones are emitting microwave radiation, which is known to damage DNA.

[0:21:36.8] AVH: Right, so I'll stop doing it.

[0:21:39.6] AM: So a couple of things, again everybody is going to use their technology in a different way. In terms of protecting your body, turning airplane mode with Wi-Fi off will stop the radiation. So that's definitely a good step to take and I would say definitely from a practicing save tech standpoint, not to put the phone on your body. It's getting distance from the phone is important.

Speaking on the phone, it's wise to choose speaker option on the phone or if you don't want everybody hearing your phone call and you're in public get something called an air tube headset. So that will effectively reduce the amount of radiation going from your phone through the headset into your ear. It reduces it significantly but specifically Air Tube headset. So I would say that those are very actionable steps that are not so hard to take.

[0:22:44.4] AVH: I know we're talking semantics here but what distance is a safe distance with your phone? People talk about turning your phone off at night obviously. Don't have your phone in your bedroom if you can avoid it but is it better to have your phone on the dresser across the room from you versus on the one right next to your head. Does that make a difference or is it completely away from you sort of thing?

[0:23:07.3] AM: It depends on the device itself. I can say that yes, distance is your friend no matter what device we're talking about, distance is your friend especially, moving away from a cellphone, if we're talking about a wireless router in your home, if you must have wireless for some reason in your home that wireless router should not be in your bedroom. It should not be on your desk where you're sitting all day. That wireless router should be as far away from where you and your family spend the most time and it should definitely be not in anyone's sleeping area.

So I also always recommend people turn off the Wi-Fi router at night. That's going back to your previous question. It is actually a good first step for some people because you're sleeping. Your body needs to restore and rest and it's 3 o'clock in the morning, you're not online. You're sleeping so turn the Wi-Fi router off at night, turn it back on in the morning and that will be helpful in resting and restoring your body. From a cellphone standpoint and a distance between yourself and the cellphone, the manufacturer's warnings do vary from one device to another.

There are fine print warnings that manufacturers include with the packaging of smart phones and it actually indicates that phones can exceed the FCC guidelines if they're kept in the pocket or on the body. So like for example, Apple warns that carrying an iPhone, they say carry your iPhone at least five millimeters away from your body to ensure exposure levels remain at or below the as tested levels and all of these guidelines vary. You can definitely check this out in

your user manual, but I think the important thing to point out about the fine print warnings is these fine print warnings actually only speak to thermal impacts, which is what the FCC guidelines are based on, thermal meaning heating impacts.

So even if you follow these guidelines and you keep your phone 20 centimeters away or five millimeters away, whatever that warning is, they actually don't adequately protect from the non-thermal impacts that all of these studies are showing biological impacts. So it's just something that I wanted to point out.

[0:25:36.8] AVH: So my next question is two sides of the same coin here. One side is how do we avoid being completely paranoid because as we talked about, it's everywhere, it's all around us, there are a million things we're being exposed to every day? Even for example what we are doing right now like I am plugged into headphones and a laptop and a microphone and I know we were talking offline about how we were going to connect on this and you were bringing up some points that I had never even considered like what we are doing right now is something that maybe isn't the healthiest thing for our bodies.

Okay, so that's one side of the coin and then the other side is what about people who maybe, this is an intangible thing, right? You don't necessarily feel the effects or you don't recognize the effect that EMF has on you. So what are some ways for folks who maybe aren't thinking about it enough to be aware and be mindful?

[0:26:29.7] AM: Right.

[0:26:30.0] AVH: How to find that balance I guess.

[0:26:31.9] AM: Yeah because I think again that this is definitely a topic that most people are not aware of and so the first time they hear about it, there's a lot of questions and it's good to ask questions, actually. So I would say ask questions and there are a lot of resources online that will direct you for "10 steps for save tech" and I hope that even just like some of these articles in your magazine are directing people to actionable things that you can do to protect themselves and not become paranoid.

So I think that it's just — what can I say? I think that there are people that are obviously going to feel the effects of this and those are people that are clearly electro hypersensitive and having known and documented neurological and immunological reactions and then there are people that are using the technology but they are still feeling fine. But it doesn't actually mean that just because you feel okay that your body at the cellular level isn't experiencing the effects of the radiation.

So I'd say that regardless of whether or not you're a person that feels the effects or you don't feel the effects, taking steps towards safe technology is the best thing that you can do to protect yourself. It's basically harkening the precautionary principle like lack of evidence of harm is not evidence that any of this is okay. So in terms of a list of steps that people can take, yes like control your home environment, wire your home environment as much as possible, make yourself a sleep sanctuary as well.

I mean if the rest of your living environment has electromagnetic devices and wireless devices that you're still using, well at least give yourself a sanctuary in your home where your bedroom is low EMF environment. So there's no wireless in your bedroom, don't keep the phone in your bedroom, charge the phone elsewhere in your house, downstairs at night. Choose to use airplane mode when you're not using your phone. Turn your phone off when you're not using it. Turn your tablets off when you are not using it.

For kids too, you can download movies so you have an iPad. You can download movies, you can download games, download that when your kids aren't holding the device and then switch it to airplane mode and then have the kids use it and watch the movie offline. So simple things like that.

[0:29:23.9] AVH: Cool. Aside from your work, what are some of those resources that people can go to? We can put them in the show notes for folks.

[0:29:30.2] AM: Oh sure, well a really great place to go with a lot of resources you can even download and share is the Environmental Health Trust and the website for that is ehtrust.org and so there's a lot of information there about kids and wireless, pregnant women and wireless, just adults and wireless. The American Academy of Pediatrics does have some pages on this

topic and that's at healthychildren.org. There's The National Association for Children and Safe Technology at nacst.org. If you are curious about those fine print warnings in your devices, there's actually a website where you can search for your device quite easily and that's at showthefineprint.org and...

[0:30:26.3] AVH: That's a lot.

[0:30:27.7] AM: Yeah there is more too, but I would say also important is The Baby Safe Project and that specifically is geared towards pregnant women and how pregnant women can limit their wireless radiation exposure and that's at babysafeproject.org.

[0:30:44.3] AVH: Great, thanks. Do you have any new studies or articles or projects personally on the go that you can talk to us about? Or maybe you'll just have to wait for the next issue of Paleo Magazine for it?

[0:30:56.9] AM: Exactly, yeah. Well I am constantly studying this. I am constantly working on reading the latest research and I can't speak to anything in particular although I have started studying electro hypersensitivity a bit more to try to write on the community of people around the world who have this, both children through elderly. So it's not specific to just one age group. So I am doing more research on that.

[0:31:31.5] AVH: That's great and we're going to put this in the show notes as well but can you tell people how we can find you online and read more of your work?

[0:31:38.2] AM: Sure. See my website for most of my writing is at www.alisonmain.me and can follow me on Twitter @amaindesign and I'm on Facebook too, although I think my settings are probably private at this point.

[0:32:00.5] AVH: Yeah, I mean you've got to draw the line somewhere, right?

[0:32:02.5] AM: I know. But see actually this is a good point toward all of this. I am on social media, I'm on Twitter, I'm on LinkedIn, and I'm on Facebook and I have a website. I have a computer which is a laptop and I have a landline and I have a cellphone and I'm working and I'm

connected and I'm doing it all utilizing safe technology and I think it's important to point out that I am a person who's essentially running a freelance business and I'm doing it safely and it was not hard to get an ethernet cord and turn off the wireless router. It was not hard to get a different phone and plug that in instead of the cordless phone.

[0:32:45.0] AVH: It can be done.

[0:32:46.1] AM: It can be done.

[0:32:47.5] AVH: Yep, awesome. Well thanks, Alison, for being on the show. I really appreciate you bringing attention to a subject that I think many of us are still very much in the dark about. I think you have given us a lot of things to think about, a lot of great takeaways and not in a way, like I said, that's going to make us paranoid and afraid but showing us that this is what the reality is and these are a lot of ways that you can do, things that you can do to make yourself healthier. So it's good just to be more mindful in a world that is very, very tech driven so I really appreciate your help.

[0:33:18.6] AM: Exactly, no problem. Happy to.

[0:33:21.1] AVH: Awesome and we're looking forward to reading more of your stuff in Paleo Magazine in the future.

[0:33:24.7] AM: Thank you so much.

[0:33:26.2] AVH: Take care Alison.

[0:33:27.0] AM: Right, you too.

[END OF INTERVIEW]

[0:33:28.1] AVH: That was Alison Main talking to us about environmental health and technology and reminding us that we can all stand to turn our cellphones off and play outside every now and then. Speaking of playing outside, Paleo Magazine has tons of articles about different ways

to make exercise fun and challenging with outdoor workout ideas, functional movements, even some cool new equipment and if you want to see them all, you should subscribe. You can sign up for a print or digital version of Paleo Magazine and get access to all of the great articles by the industry's leading health and fitness experts.

Speaking of experts, next week I'm talking to the Paleo godfather himself, Robb Wolf about his new book, *Wired to Eat*. He talks about how to turn off cravings, rewire your appetite, and gives step by step guidelines on how to figure out what foods, what carbs — yes carbs — work for you. It's very useful, very tangible information for anyone trying to improve their health.

So to say I'm excited about this interview is an understatement considering I have been following his work and his podcast for years and he's a pretty big deal, right? So this is going to be a good one and if you subscribe to Paleo Magazine Radio on iTunes or Stitcher, you will be sure not to miss it.

Finally, one more shout out to today's sponsor, Restorative Blends. If you could use a little extra immune boosting greens in your life, and who couldn't, you should check out their Armor Super Food Mix and if you're looking to get off social media and concentrate on your work for more than 10 minutes at a time, yes I am speaking about myself here, you can try their new Tropic Supplement, Clear Mind. I've tried it, I loved it but check it out for yourself at restorativeblends.com.

[OUTRO]

[0:35:12.8] AV: Paleo Magazine Radio is brought to you by the Paleo Media Group and is produced by We Edit Podcasts. Our show music features the song *Light It Up*, by Morgan Heritage and Jo Mersa Marley, and on behalf of everyone at Paleo Magazine, thank you for listening.

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