



**The silent threat! Why electromagnetic fields from
mobile phones, wifi and wireless devices are
damaging our mental health, and what to do about it
with Nick Pineault**

[The MindHealth360 Show](#)

Episode Transcript

Host: Kirkland Newman

Guest: Nick Pineault

The MindHealth360 Show - Nick Pineault

Nick Pineault:

The average citizen does not think that whether it's cellphone radiation or WiFi or any of these signals can do anything to their body or mental health or brain or any organ in their body, right? So, that's a problem. We're misinformed by health agencies. The health agencies are not giving us the latest independent scientific information, and they're stuck in an old thinking.

Kirkland Newman:

Welcome to The MindHealth360 Show. I'm Kirkland Newman, and if you, your loved ones or clients suffer from mental health issues such as depression, anxiety, insomnia, poor memory, poor attention, mood swings, exhaustion, et cetera, I interview the leading integrative mental health practitioners from around the world to help you understand the root causes of these symptoms, many of which may surprise you and suggest solutions to help you heal. If you like this interview, please do subscribe and forward it to others who might find it helpful. If you want further information, please go to www.mindhealth360.com or find us on social media.

Kirkland Newman:

So, Nicolas Pineault, welcome to The MindHealth360 Show. Really happy to have you here.

Nick Pineault:

Thank you, and your French is impeccable.

Kirkland Newman:

Thank you. Do you speak more French or English?

Nick Pineault:

My primary language is French. I'm a French-Canadian. So, here in Quebec, the majority of people actually speak French and a little bit of English.

Kirkland Newman:

Interesting. So, we should do this in French with a French audience.

Nick Pineault:

We could.

Kirkland Newman:

We'll do a round two in French. So, you've written this amazing guide called The Non-Tinfoil Guide to EMFs, which is absolutely brilliant.

Nick Pineault:

Thank you.

Kirkland Newman:

How to Fix Our Stupid Use of Technology. It's one of the best books. It's certainly the best book I've read on this matter, but it's one of the best books I've ever read in the sense that it's really well-written. It's

really funny. It's very easy to read. It's incredibly informative. It's got a lot of research to back it up. I really enjoyed it, but it was a little bit depressing, I have to say. So, I just wanted to have a chat with you about this big problem that not many people think about when it comes to mental health.

Kirkland Newman:

I know that you cover all the different aspects of health and cancer and all sorts of dysregulations and health, but what we're particularly interested in here at MindHealth360 is mental health. It's extraordinary the pervasive effects of these electromagnetic fields, whether it's from cell phones or from WiFi or from dirty electricity or your plugs or high voltage towers. I mean, we're surrounded, as you call it, in this EMF soup. It's having a huge dysregulating impact on our bodies, on our cells, and on our mental health.

Kirkland Newman:

So, what I would love you to do, you're known as the EMF Guy in terms of you're the bestselling author of this book, which is an incredible book, and it's through your unconventional approach, which you blend humour, science, and common sense. I would agree with that. You're becoming a leading voice on the topic of electromagnetic pollution and how it affects our health. I have to say thank you for the work you do because it's so important.

Kirkland Newman:

Over the last few years, you've been interviewing some of the best minds on health and technology and facilitating the creation of courses and educational materials to raise awareness, and you can find more about you at theemfguy.com. Also, you have this program called electropollutionfix.com, which is your EMF protection course, which you did in collaboration with Brian Hoyer from Shielded Healing. I think, certainly, I'm going to sign up for that because I think it looks amazing. So, why don't I just let you tell us a little bit more about how you got into this, why you got into this, and what are the key things that we should know in terms of EMFs, and I know that's a big topic, but just take it away.

Nick Pineault:

Sure. Well, I started my journey in health more than 10 years ago just trying to eat healthier, trying to get in the gym and get in shape. I didn't do much. I grew in size before that. So, it was in my early 20s. I discovered the holistic approach to health and nutrition, and supplements, and spending time in the sun, and exercising, and all of these new concepts for me, even meditation, that was not mainstream at all in 2008 and before that. It was something fringe. So, a lot of these practices that I started very early, even the paleo diet back in 2006 was almost witchcraft. Nowadays, it's mainstream.

Nick Pineault:

So, it's a long, long time ago it seems even though it's not even two decades, but I started with that in mind and I discovered very quickly that even just eating healthy was pretty complicated because you had to look at the labels and some labels were misleading. I have a communications background and I did the copywriting for TV. So, I was very close to mainstream media and the journalistic approach in my university degree and also after that with my professional career. I started adopting this approach where the information I found I just wrote it on a blog in French at first. After that, I started in English to have what I perceived is a bigger impact because, of course, in North America, it's mainly English. So, I figured, "Okay. I'm going to switch to English and perfect my writing in English."

Nick Pineault:

So, I started publishing on nutrition and holistic living. Years later, I stumbled upon EMFs. That was 2016. I started reading a few books around EMFs from EMF scientists like the late Martin Blank, who had a physics background and also who had the biology background. So, he understood both the physics of EMFs and also how it impacts living systems. He was from Columbia University. I found it very bizarre that such a high level scientist, very respected in a respected university made those claims that cellphones are not safe, that WiFi isn't safe, that this stuff is impacting us.

Nick Pineault:

Whereas if I listen to Health Canada, they would say here in Canada that, "No. In fact, you can be exposed 24/7 with no effect whatsoever." That's what they said. They said, for example, in kids, you could expose a kid to 1,000 cell phones every day, no problem. So, it's really their position it's no effect whatsoever. So, it seemed crazy to me this difference in scientific opinion between these two people, and one of them is independent, and then Health Canada, well, I'm not too sure because the Canadian government is making in the billions per year selling spectrum to the telecom. So, clearly, there's a conflict of interest and also, society is moving in a direction where when you develop these telecommunications, you're viewed as someone who's in the future and not the past. You develop this technology for citizens and for business. So, it's good for the economy. Also, there's a strong incentive to expose ourselves to more and more of these wireless signals.

Nick Pineault:

So, I did my own investigation and what I found I put in the book, The Non-Tinfoil Guide to EMFs. The short story is that we are exposed to a new type of pollution called electropollution. Everyone knows nowadays it's pretty crystal clear to the average person that air quality is important. If you see black smog in a city, and I went to Bangkok, I went to these east Asian countries, where sometimes in the year you have massive smog and everyone is coughing. Everyone is at the hospital. It's pretty bad every year, and it leads to, in fact, I think it's six or eight million deaths annually according to WHO, the World Health Organization, just because of the smog around the planet, that is. That's a lot of deaths. That's millions and millions of deaths, especially in developing countries where their healthcare is even worse. So, they're not able to treat citizens as well as the richer countries. So, that's unfortunate, but at least we know it's bad. We can see and then society is moving, even China, that was a main polluter now is among the greenest business industries, because they're forced to reduce emissions so they know that, "Okay. We're going to create zero waste technologies and whatnot." So, being green is becoming mainstream also. So, that's good, and we are getting somewhere.

Nick Pineault:

With electropollution, we're still in the dark ages. So, we're increasing the levels of electropollution, whether it's the amount of cellphones and tablets and WiFi machines that we have inside our homes. We're increasing the amount of towers. So, more towers, more satellites that point to towers, that point to cell phones. We're just increasing the amount of sensors, the internet of things. So, my Bluetooth thermostat talks to my phone and to my lights, and now I can do some cool things with it. So, a lot of convenience and a lot of hype at the moment that you can control things at a distance because it's something that has been sold to us as something cool and part of the modern lifestyle, if you will.

Nick Pineault:

So, we're running as fast as we can in the opposite direction when it comes to electropollution, to quote an EMF scientist, Dr. Martin Pall, and this is really why I'm focusing on this issue is that I think the average citizen does not think that whether it's cellphone radiation or WiFi or any of these signals can do anything to their body or mental health or brain or any organ in their body, right? So, that's a problem. We're misinformed by health agencies. The health agencies are not giving us the latest independent scientific information and they're stuck in an old thinking, and a lot of conflict of interest also with the industry.

Nick Pineault:

Number two, it's increasing, which is crazy when we could recognise a problem, normally, we try to reduce the levels. So, we're really in a bad spot right now where it's up to users, which means you listening to this, to minimise your exposure and these health effects before finally the way we use technology can become safe, eventually down the road.

Kirkland Newman:

Totally. I think, I mean, I have some stats here which I pulled from your book, which were really terrifying. So, I think first of all, between 2013 and 2020, the number of tablet users increased by 121%. The number of cellphone users will increase by 82%. We spend on average nine hours a day on our electronic media, which is huge. By 2020, well, that was last year, an additional three to five billion people who never had access to the internet have gone online for the first time. In terms of you mentioned the internet of things, by 2020, there should be around 50 billion devices, people or sensors connected with each other.

Kirkland Newman:

The interesting thing you were telling us about in the book, actually, and that you mentioned is that 30% of studies into the health effects of radiofrequency, which is the type of EMF linked to cell phones and WiFi, which you'll tell us more about, are funded by the wireless industry. 70% are funded by other sources, which are supposedly more independent, but the interesting thing is that of the industry-funded studies, 27% demonstrated a biological effect in humans resulting from radiofrequency exposure, whereas the independently funded studies found 68% effects. Now, that says a lot, I think. You're absolutely right that there's a huge exponential increase in the amount of this radiofrequency that we're surrounded by. The research is not out there. There's so much controversy and you mentioned this in your book as well in the media. One minute you have a headline saying, "Brain cancer increases with cellphone use," and the next one it is like, "Oh, there's no link whatsoever." So, you don't know as the end user what to believe, but from your book, there's a huge amount of studies that are out there but that are not getting into the public. There's an exponential increase in this technology, and it's a real problem.

Kirkland Newman:

Just to tell us the different types of EMF that you talk about in the book, I know there are four different types, but if you can quickly take us through them, the radiofrequency being I think the main one, but then there are two others as well.

Nick Pineault:

Yeah. The radiofrequency is the main one because that's the one that has been increasing the fastest especially in the last decade with the advent of the smartphone. So, it's the one where we expose ourselves very close to the source, so to smartphone being one of them or a tablet or a wearable Bluetooth gizmo or even headphones that are wireless. So, we have it very close to the brain. So, radiofrequency is one. It's also called microwave radiation. That's, in fact, a similar or a nearly identical type of radiation emitted by a microwave oven, although at a much lower power. So, obviously, we're not cooking our brains or any of that stuff. That's a little bit of a myth. But at the low level, it doesn't mean there's no effect. So, that's one of the types of EMFs that I talk about.

Nick Pineault:

The types of EMF that I talk about are based on the profession of Building Biology. Building Biology is a movement started after the second world war in Germany as they were rebuilding the country. They realised that a lot of homes were, for example, poisoned with mould and people had this sick building syndrome, where people working in an office, everyone was sick or coughing or had cancer. So, they started to apply these principles of healthier buildings. So, in Building Biology, it's looking at various aspects of what makes a building healthy and one of them is the amount of electropollution inside. So, they look at four types of EMFs. We talked about radiofrequency. They also talk about magnetic fields. Magnetic field, for example, a very common example that has been in the news is these high-voltage power lines, and homes that are very close to these extremely large power lines that can be nearby certain homes, especially in the countryside.

Nick Pineault:

There's been quite a lot of controversy around the world that whether these power lines can cause an increase in childhood leukemia when you're exposed to them too close, to the source, so to the power line. Very recently, the Connolly Group, I can't remember, I think they're from Singapore, looked at the increase. That was I think the sixth or eighth study as far as increase in magnetic fields will lead to more miscarriage, which is very, very concerning because, again, magnetism is one of the very fragile mechanisms when you treat a child and their cell differentiation to create an embryo.

Nick Pineault:

So, for example, we know that these EMFs impact stem cells preferably over any other cell type in the human body. That's the research by Dimitris Panagopoulos. So, when he shared that, I was very concerned, and I found that ironic that so many people who want to live longer and look better get stem cells but they're not aware that just cell phones might be interfering with their own stem cells that are there to begin with. So, that's something that is concerning. That's magnetic fields.

Nick Pineault:

As far as home goes, sometimes in certain situations, you are too close to a source. So, imagine if you have an air filtration device that's there in your bedroom, but let's say you decide to install it two feet from your pillow. Well, that machine has a strong motor inside and it will create a bubble of magnetic fields around it. So, if your head is in that bubble, well, it can tremendously impact your sleep. In the long run, elevated magnetic fields might also be a carcinogen. So, that's something that has been established at the WHO since 2002 that it's a class 2B carcinogen as far as magnetic fields go and radiofrequency radiation as well, the first type that I talked about, since 2011. So, these are the main two types that we talk about.

Nick Pineault:

Electric fields are also something to think about. In the very low frequencies, we have household electricity. People don't think about electricity as something that can harm us except if you get an electric shock, but in reality, very low level exposure to electricity, even a few volts that are going through your body as you sleep at night can have an impact on your sleep. The science on this is unclear as compared to other types, the most studied type being radiofrequency radiation especially from cell phones and cell towers, but there's good enough evidence that if you reduce the amount of electricity that runs on your body at night, you sleep better. So, we can probably conclude that it's a healthier environment.

Nick Pineault:

In nature, we were not exposed by electrical wires all over the place. It doesn't work that way. You're in the middle of the forest. Your body voltage, what runs on your body is zero, right? You don't have that AC artificial 60 Hertz electricity running in your body. So, it's just another layer of let's say artificial type of frequency that your body responds to in random ways that we can only hope are not harmful, but it looks like when you reduce exposure, you feel better and you sleep more soundly.

Nick Pineault:

Finally, there's a subtype of EMF that is a type of electric field that's called the dirty electricity. Dirty electricity is the quality of that electric field that runs in your walls. So, normally, you have a 60 Hertz or 50 Hertz frequency depending on where you live in the world, and it goes like this. This is a smooth wave, right? So, imagine a smooth wave. Dirty electricity is all the little spikes that ride that wave. So, you have a lot of voltage transients that are there.

Nick Pineault:

For example, you could connect a professional machine to read what frequencies are on the wires in my home and you would not find just 60 Hertz or 50 Hertz. You would find in the kilohertz range, you would find even WiFi on there riding because of all this electropollution is riding on the electrical lines. What happens there, the few studies we have showed links with increases in blood sugar because of a stress response. Loss of sleep is also a potential issue, and also it's been studied in a few peer-reviewed publications by Dr. Magda Havas that it might increase symptoms of ADD, ADHD in kids. So, it looks like dirty electricity is one that is very agitating and stressful to the body. So, at night if you're agitated, you sleep less soundly and if you're a kid with a lot of energy to begin with, I have a three-year-old at home so I can tell you now, I know that firsthand if you excite them further, well, maybe now it's too much and they cannot concentrate, for example, or stay calm for a second.

Nick Pineault:

So, these are the four main types that have been identified by science, maybe with the fifth one being even artificial light. That's something I'm adding to my work in the last few years because it's a type of EMF in the end. So, I'm looking at all the frequencies that we were never exposed to to these levels and how they impact us. Then the goal and after this discussion is to minimize how much you're exposed to them and not eliminate them because, of course, it's not realistic to go back to the stone age or live in a cave, right?

Kirkland Newman:

Completely. I mean, one of the facts that I found incredibly striking is you were saying that, basically, from manmade sources we're exposed to 10 billions times more EMF radiation than back in the 1960s, which is just a huge amount.

Kirkland Newman:

You talk a little bit about children. One of the things I found most worrying about in your book was that you say children's bodies contain a lot more water than adults. Therefore, they conduct a lot more of these EMFs. Their heads apparently tend to absorb two times more radiation from the same exposures compared to adults and their bone marrow absorbs up to 10 times more.

Kirkland Newman:

That's terrifying because I know my kids, for instance, they game and they wear their Bluetooth headphones all day long, 12 hours a day. Then if they're not doing that, they've got their phones in their laps. Now, I know that the stuff that you said in your book is quite scary in terms of the health effects, and I think that's what we should come on to next is the health effects that you've uncovered. There's a whole list of them. I don't know if you want me to read off this list or if you want to tell us. All these things have an impact on people's mental health, but with integrative mental health, we look at the biochemistry and we look at the physiology. So, we know that disrupted hormones, disrupted gut, leaky blood-brain barrier, leaky gut, all these things impact your mental health in a big way and these are all the things that are impacted by these EMFs. Do you want to tell us a little bit about that?

Nick Pineault:

Sure. Well, there's main things to think about when it comes to the impacts of EMFs that you might have on your person. The first one is the immediate impact when you're very close to the source. So, the good news, if I have my phone here on the table two, three feet from my person, nothing much is happening as far as cancer risk and very dangerous long-term effects. We're talking about the heavy users who use a phone on the ear or Bluetooth headsets. Unfortunately, you have these Bluetooth things. I cannot recommend them because of the proximity to the brain and the long-term impacts of using them over years usually. It's not something where you're going to be affected in five minutes, or have an acute effect. If you do, you might be one of the individuals that in some sense is lucky to be electro-hypersensitive because you have a strong sense that you shouldn't have this exposure. Some people, for example, get nearly instantaneous headaches or migraines when they talk on the phone.

Nick Pineault:

Well, trust me, they don't talk on the phone anymore and now they use safer ways, for example, a wired headset or they use distance and they use a speaker phone. They can still use a phone. In certain situations, they have to use a wired computer and not even use a cellphone inside their home because they're too sensitive to these exposures.

Nick Pineault:

So, that's the reality that the symptoms will vary from one person to another in a great amount. I think the best analogy to give people listening to this is gluten. A lot of people are aware that certain allergens in food can impact me a different way than my neighbor, for example. So, I might be gluten intolerant. So, I have a little bit of bread and I'm okay, but I get joint discomfort and I'm aware that I shouldn't do it

more than once a month, but maybe my neighbor is Celiac. Celiac is having an autoimmune attack after gluten. So, he might eat a bread crumb and be nearly bedridden or some people have a hard time walking. They would have symptoms nearly like multiple sclerosis after having gluten. So, my neighbor shouldn't use a phone at all. Maybe I can use it a little bit, and maybe my second neighbor is perfectly fine. So, that's the problem, just like gluten, is that a lot of people are in disbelief if I have strong effects from WiFi, my neighbor doesn't, he might think I'm a little bit woo-woo about it and I'm a little bit overreacting, especially since everyone tells us it's safe. So, everyone will react differently.

Nick Pineault:

So, if we look at the data that says, "Okay. Well, who's sensitive? How many people are sensitive?" I was talking to Professor Olle Johansson, who's an ex-associate professor at Karolinska Institutet in Sweden. He has over 600 peer-reviewed papers in the scientific literature. So, that's quite a career over a span of nearly 50 years now. He told me that his estimate of the moment is that 350 million people worldwide are electrosensitive.

Nick Pineault:

Other professors like Dr. Magda Havas from Canada thinks it's up to 33% of the adult population might have what she calls moderate to mild symptoms of electrosensitivity. That's a third of people listening to this. What happens in a lot of situations is that you're not aware of how much it's impacting you except when you stop. Just like with gluten, right? Going back to the example. So, maybe you think, "I'm perfectly fine," or "I feel okay," or "I don't think my headaches are really related to gluten." You stop a month and then all of a sudden your headaches go away and you tell yourself, "Maybe it was that." So, you reintroduce gluten and then you get a strong headache to confirm.

Nick Pineault:

The same thing happens with EMFs where some people who turn off the WiFi at night, well, I'd say most of them feel like, "I have better sleep now," or "I have more energy," or maybe in my case, for example, I used to work on WiFi in this very room. The WiFi would give me brain fog. I didn't really know how to quantify that, but when I stopped using WiFi and I have an ethernet cable that goes from this computer to my router, so that's a cable, that's a wired connection, and I turn off the WiFi on my computer, well, oh, now I can think, now I can write and I can do my work.

Nick Pineault:

So, it looks like in my case I have a slight sensitivity where I have these brain effects and it impacts me as far as brain fog goes. It might also make me a little bit anxious, personally, because I tend to have anxiety. So, as far as mental health symptoms go, well, it will exacerbate whatever is your weak spot. So, if you're prone to, is it depression or anxiety or maybe you don't have any dopamine so you rely on a lot of caffeine or stimulants or addictive behaviors maybe, or being obsessed about something. So, it can go a lot of ways. Some people can have panic attacks, too, in very extreme situations. So, it depends on the individual.

Nick Pineault:

One of the mechanisms I can explain is that these EMFs lead to calcium overload in the cells. That's a mechanism that Dr. Martin Pall from the Washington State University explains that it triggers the voltage-gated calcium channels that are present in every human cell, especially concentrated these

VGCCs, that's the abbreviation for it, especially concentrated in the brain and the heart and the nervous system overall. So, in other words, you have more heart and brain effects than hand effect from EMFs. So, it's a nervous system thing where your nervous system is aggravated and stimulated that way.

Nick Pineault:

Also, it will act in synergy with NMDA receptors because the NMDA receptors, and I'm not a biochemist so I might butcher this, but what he explains is that there's a synergy between having a lot of sugar, a lot of caffeine, a lot of things that have that dopamine hit and the EMFs. Both will overload the brain with calcium, and then when the brain is overloaded at the cellular level with calcium, it leads to downstream effects, for example, oxidative damage. So, it's almost as if we're running the engine too fast and dirty fuel is burning and the brain is becoming dirty in a sense with a lot of oxidation. What it does long-term is that, well, you have to antioxidant those oxidants. So, your internal reserves of antioxidants, you have glutathione and SOD, in multiple studies and animal models, we know that long-term it will deplete your natural reserves of antioxidants just like it happens with other environmental toxins, for example.

Nick Pineault:

So, if you're exposed to heavy metals in your water and pesticides on your food and a lot of work stress, and maybe you're exposed to a lot of EMFs outside your home, but also inside your home from your own devices, then you have the perfect storm.

Nick Pineault:

So, EMFs, you have to think about it not necessarily as a single causal factor that, "Okay. EMF is to be blamed for everything," but it adds to the injury. So, if we're in a modern lifestyle with a lot of environmental toxins and you add it on top, that's where you develop sensitivities and once you do develop a strong sensitivity and a lot of symptoms, it's hard to go back to no symptoms because think about it. The Celiac person can nowadays, thank God, eat gluten-free and from certified gluten-free sources, but try to not be exposed to any electropollution and you will have a very hard time. So, it's hard to reduce exposure, especially when you become that sensitive. So, the general advice is, well, reduce your exposure now to not develop the sensitivities, if you will.

Kirkland Newman:

It's so interesting. I mean, you've given me so much information and so much information to digest, but there's so many things that it brings up. I mean, one of the things that I find fascinating in your book is when you do talk about the nervous system and how EMFs can damage the myelin sheath, and they can also reduce heart rate variability. They can cause damage to the DNA, inflammation, hormone disruption.

Kirkland Newman:

The other thing I find fascinating is that they can create leaky barriers, so a leakier blood-brain barrier, a leakier gut barrier. We know that that can then cause neuroinflammation, inflammation, neuroinflammation. The other fascinating thing that you were mentioning is the effect of EMFs on moulds and other biotoxins and also how they can potentiate bacteria, viruses, fungi, and other pathogens.

Kirkland Newman:

So, it's like as you were saying this perfect storm because they seem to potentiate the pathogens, reduce your body's own ability to heal, as you were saying, by reducing antioxidants, using them up too much. There are other ways that you mentioned in terms of clumping red blood cells together, reducing oxygen delivery, increasing cortisol, inflammation, and all these things are happening behind the scenes, and this is what I find interesting is that even if you may have no symptoms at all. So, you can be electrosensitive, hypersensitive, and I think in some ways that's a blessing because then you can say, "Okay. This is not working and I've got to stop." Most of us go on and maybe we're not hypersensitive, but that doesn't mean that it's not having that same biochemical effect on our physiology and over time, that it's not increasing inflammation, increasing pathogens, increasing leakiness in our gut and in our blood-brain barrier, et cetera.

Kirkland Newman:

So, would you say that it's this silent threat in some ways, that it's just always there whether you have symptoms or not? We know that over the long term, all these physiological imbalances, whether it's to your hormones, it's to your gut or to your inflammation levels will have mental health repercussions, essentially. We know that whether it's depression or anxiety or cognitive decline, Alzheimer's, these are all issues with inflammation and with oxidative stress. So, it's a really disturbing thought that whether we have symptoms or not it's chipping away at the health of our physiology. So, I guess the question is some people are more sensitive than others, but would you say that it's fair to say that it's impacting us all whether we know it or not?

Nick Pineault:

So far, this is what the top EMF scientists I've been very close to and interviewing in the last years are saying. So, regardless of the symptomology, it looks like the cellular damage can occur. This started very early. Exposure to screens and to the magnetic fields in screens, but also to, at the time, the older screens in the '80s were emitting UV radiation. I guess that's on the EMF spectrum also although a little bit higher than the radiofrequency we're talking about, and this is Professor Johansson that I cited earlier in this conversation, and he wanted to look at can healthy participants have a skin reaction to a screen if they have the screen to their back. So, they don't know if the screen is on or off, and does their skin know that the screen is there because some people were complaining that they were getting skin effects, skin rashes, which is called screen dermatitis because there's an official medicine term now for it.

Nick Pineault:

So, they had a histamine reaction in the skin, an allergic reaction, if you will, to screens. He wanted to prove that this is happening regardless of whether people feel symptoms or not or whether they get rashes or not. He proved it in participants in the '80s, and these participants as he put it in multiple interviews, the only side effects that they got was boredom because the experiment was over two hours. So, they just sat there and looked at a blank wall for two hours. They felt bored but they did not get affected, but they took skin biopsies and, indeed, they had a strong histaminic reaction.

Nick Pineault:

So, it's interesting that these effects are found regardless of symptoms, but this might also be true for multiple agents. Some people react very strongly to arsenic or to lead, more so than the average person, but all are affected, but it's hard to quantify. This is what's frustrating even for me nowadays is, "Okay.

Well, now we had the conversation and it's bad. So, how can we quantify how much is too much?" That's the question. As far as agents, we have lead levels. For example, every decade now, health authorities worldwide and scientists, there's a lot of scientists looking at lead, and the fact that we thought maybe a level of XYZ was safe for children, but now we know it's tenfold less, and we know it's tenfold less. Every decade, it goes down by tenfold because we realise it's more toxic than we thought. So, I think the same will be said for EMFs.

Nick Pineault:

The problem is that we're still using leaded paint but in the form of cell towers. How can we eliminate that because that's a real headache for society? Well, now we have telecommunications. Do we really want to go back to old phones? So, I don't know exactly how this plays out, but what will happen in the future is that the technology will become safer and safer just like the automobile industry became safer and safer.

Nick Pineault:

At the time, or I was told, before I was born, '87, in the '60s and the '50s and the '40s, I mean, my dad in his youth remembers police people drinking in cars with no seat belts on, and it was the right thing to do, it was cool, yeah, they had a beer. So, it looks like this is medieval ages compared to now the safety we have in cars. We have reduced mortality because now we have the airbags and we have car manufacturers that are required to do so much. Every single piece of a car is designed with health and safety in mind first before functionality.

Nick Pineault:

So, when this will apply to electronics, we will have achieved a much greater safety. Maybe it will be more safe by a factor of a million, your cellphone, which means that maybe our bodies will be able to cope with the exposures and we will not have the sensitivities or maybe not. I don't know exactly, but this is where it will shift in the future as far as quantification goes.

Nick Pineault:

In the meantime, we have to self-navigate. This is what's frustrating about this. We have to try to minimise exposure from all these different sources. So, it's not just your phone. It's starting in my work with Brian Hoyer, who's an EMF medication specialist, he's not from the Building Biology profession, but this is the equivalent. So, he's an engineer in taking home surveys. We've identified, "Okay. Well, what's the easiest thing for people to do in their home?" Because you cannot control the cell tower and press a big button and it stops, right? So, the outside exposures we have some control over. We can become an activist. We can say, "Hey, I don't want a tower near my home," and that's good, but it's hard to stop the tower. It's fighting David against Goliath right now. It will get better, but it's rough.

Nick Pineault:

You can control your WiFi router. So, you can turn it off at night, for example. You can control what's in your bedroom. I think that's the most important thing that I can leave people with today, if there was only one thing, is get devices out of the bedroom. Any device that you think might be connecting wirelessly or turn them off or airplane mode is good enough on a cellphone or a tablet, for example. So, just that because the human body is more affected at night. It's because of the stimulatory effect of signals and also potentially because the radiofrequency radiation is recognised in the human body as

light, and that's a little bit hard to understand, but the frequencies are close enough in a sense where when you have very bright light in your eyes at night, most people know nowadays that excessive blue light from screens can impact your melatonin hormone and your sleep hormone.

Nick Pineault:

So, what happens is that you look at the iPad and then you toss and turn in the bed. You wake up groggy in the morning. One of the reasons is that you don't have sufficient melatonin to hit these deep sleep stages during the night. So, the same thing might be happening, but with that radiation from your phone or WiFi or Bluetooth. So, that's probably why when people reduce exposure at night, do they feel better? Their sleep improves, and even if their sleep improves 10%, what does it do for their blood sugar regulation or their hormonal regulation or for their brain cleanup, the glymphatic system that acts at night?

Nick Pineault:

It is something very important to at least try because that's also something to mention. This stuff is free, at least the steps I talked about. You can go expensive in the EMF solutions. You can shield a room. You can buy meters. There's a lot of things. I talk about some of those advanced solutions in the book or hire a professional to come to your home. You'll invest a few hundred dollars, but before that, what can you do for free? Well, click a button, airplane mode and you're done. So, why not at least give it a try considering it will likely do more good than harm and doesn't require a big investment of time and money?

Kirkland Newman:

Completely. For instance, would you say with these Bluetooth devices that the kids wear for gaming, is it better to have one that has a wire because I heard that there was a probably potentially with the radiofrequency going up the wire and being conducted even more, but is that the case or not?

Nick Pineault:

It can happen, but I think it's been overblown a little bit, that danger. Sometimes it's a frustration because even in my book, in the way I put certain things, certain things I would have said differently now four years later, almost four years later when I originally wrote the manuscript.

Nick Pineault:

For example, let me give you a silly example. A blender emits large magnetic fields. I have a photo of me with the Vitamix. That's true. If you put your head, let's say you're extremely sensitive, you put your head right next to the motor and not only is the sound debilitating, but the magnetic field might give you strong effects. So, some people would get heart palpitations, for example, if you're electro-hypersensitive.

Nick Pineault:

Well, you don't want to do that, but the average person wouldn't feel anything and in truth, what is your exposure, the length of exposure to a blender even if you use it daily? Well, it's the 45-second cycle to blend your smoothie. So, it's not a big deal. So, thinking about these exposures that are your electric toothbrush or exposures that you get a few minutes per day, it's not that useful for the average person. I found that it becomes overwhelming. You're like, "Okay. Well, my blender is dangerous. My toaster is

dangerous," these kinds of things. You don't spend a lot of minutes right in front of your toaster while it's cooking or your face right next to it. You'll burn anyway. So, it's silly to think about these exposures. So, what we should think instead is the longer exposures.

Nick Pineault:

So the bedroom is eight hours right there if you get enough sleep or six if you don't, but for most people, it's a large chunk of their day. The second place, home office or office somewhere else in the city where you go because, again, your exposure in front of a computer, if you're like me, I spend at least five hours in front of a computer every day, so it means WiFi exposure to my face one to two feet from my computer, it's a lot times how many years will I be an author, well, I hope 60 more years until I die. So, 60 years of exposure to WiFi, five hours per day, and you compute that, and it's in the, I don't know, 80,000 hours of exposures. I don't know if the math is even right. It's in the tens of thousands of hours of exposure, and this is where you have the long-term effect because your body is trying to fix the problems that it causes. It's trying to bring back into homeostasis, but if instead of that you just make a simple change, a wired computer, well, it's done, and now you don't have that exposure.

Nick Pineault:

So, it's very similar to other health practices. When you filter your water, you install a water filter for the whole home and then it's done. You change your filters and then you know that every sip times 30 years that you live in the same home will make a difference, but it's hard to quantify, "Okay. Is it that much of a big deal if I drink city tap water for one glass?" No, probably not, but it's how it will stack up over time. So, it's putting in place healthier habits around that technology.

Nick Pineault:

So, to bring back to your question, I digressed a little bit, is the wired is always preferable to Bluetooth in my view. There's a phenomenon that can happen where some of the radiofrequency from your phone, for example, if I use these wired earbuds, it could travel up the wire, but the wire is quite small and the amount of radiofrequency could not be as bad in my view and the tests I've seen compared to a Bluetooth earpiece.

Nick Pineault:

The Bluetooth earpiece or headphones or maybe even you have some bracelet or fitness tracker, it's very close to your body. When it's in your ear, let's say a Bluetooth earpiece that's an alternative or presented as an alternative to a cellphone as a hands-free device, it's even deeper near your brain. So, it's not good. It's like replacing cigarettes with light cigarettes, well, how they branded that when it was becoming cool to stop smoking and, "Oh, this one is a little bit less worse." Well, you're still smoking. So, it's a little bit of a, I don't know, industry washing to say that Bluetooth is preferable to cell phone exposure. I don't think it's any safer and we should probably go wired instead.

Kirkland Newman:

Wired, also, I presume with everything, so with your computer, if you plug in the ethernet and you turn off your WiFi, that's better. It's preferable.

Nick Pineault:

Yes.

Kirkland Newman:

You stay as far away as possible from your router and I suppose that if you're not using WiFi you just turn off your router, right?

Nick Pineault:

Exactly.

Kirkland Newman:

Then use your ethernet, your computer. With your phone, I think one of the problems also I see teenagers and even adults all day long with their phones glued to their hand, to their lap, to their body, and there's no awareness of this big issue. They're the guinea pig generation because cellphones haven't been around that long. I know that my kids, my eldest who's now 15 started to use his when he was about 11 or 12, but now they're using it a lot younger. We don't know the long-term damage that this is going to cause, but if I read your book, there's a lot of evidence that it could really cause a lot of damage. There's a fourfold increase in brain cancer in 14-year-olds, for instance, who have been using their cellphone all the time. I mean, that was one of the really shocking facts to me. So, I think this is such an important message.

Kirkland Newman:

The other thing is that if you look at our societies at the moment, there's such an increase in chemicals and there's an increase in moulds and mycotoxins and viruses and there's increase stress, and this is all part of our epigenetics, which can have real impacts on our health. It's one that's just not talked about very much. I think that's because we're early on. It's like smoking. We used to think smoking was good for us or safe at least, and then 20 years later it turned out it wasn't.

Kirkland Newman:

So, in terms of what we can do about protecting ourselves, you say simple things like keeping stuff out of the bedroom, turning your phone on airplane mode whenever you can, using ethernet cables, minimising Bluetooth. Is there anything else that you would recommend that is easy and simple to do?

Nick Pineault:

Starting in the bedroom, it's eliminating devices and then trying to wire your stuff up, especially the device. Think about the devices you're using for more than five minutes in a day, and those especially focused with the longest time of use. So, if it's your phone and you're on there five hours per day and you mainly use it while you're sitting in front of the TV, for example, well, there's an opportunity to have it wired. You could run an ethernet cable from a router to a corner of the living room like I have in my living room, and then you can have a converter that goes ethernet to lightning, and then you can have that in your phone.

Nick Pineault:

So, in fact, an iPhone and multiple models of Android, too, can be on ethernet. So, it means that you will not use your data, so that's a bonus for your pocket if you're always busting your limit. You will not be exposed to that radiation, and then you can still do everything on the ethernet. Also, it is extremely fast. I mean, I can download 40 apps in two minutes sometimes, or update all of them in two minutes. So, it's

even faster than those new 5G networks. They talk about that, "Oh, it's super fast and, users, you will have the fastest internet." No. That's a marketing scam because in reality, what is the fastest internet that we have in today's society is called optic fiber. Optic fiber uses a tube where light travels at the speed of light and the data transfer that can occur is in the millions of times faster than 5G. The record of what is the maximum transfer speed of data that has been tested in labs is in fact in the millions of times 5G. So, it's way better than wireless technology. It's just a matter of habit.

Nick Pineault:

If you can think about your devices that you use the most often and then try to reduce exposure with those, your overall dose that you're getting will be lessened. Then other devices that you might have that are occasional, well, for example, the WiFi router, put it on a Christmas light timer or eliminate it if you dare. That's what we recommend in our course for people who really want to clean their home. You go 100% wired and no WiFi. Sometimes it's a difficult change at home. Sometimes the kids aren't onboard or oftentimes it's the husband. Sometimes it's the wife, but most of the time, it's the husband, very fond of his WiFi and gizmos and tech savvy stuff. So, sometimes there's a fight, but if you don't want to take that fight right now, at least turn it off at night. Usually, most family members get onboard with that. Sometimes they will not be happy that they cannot go on social media sneakily at 2:00 AM, but maybe that's a plus also for a family because we shouldn't do that. It's not a good practice for our health.

Nick Pineault:

Turning off exposures when they're not useful is very important, too. So, who needs the WiFi at 12:34 past midnight, right? It doesn't make sense. So, you shouldn't be exposed to that. If you have a computer, do not let your computer open on WiFi at night while it's downloading stuff. It's emitting. It's emitting this radiation. Do it during the day or when you're away from home, for example, if you have something to download that's quite data intensive. So, just think about these exposures and be mindful about them.

Kirkland Newman:

That's fantastic. I mean, that's super helpful. You have so many more tips in your course, which is your electropollutionfix.com, which I think looks really incredible. In terms of the evidence that doing these things can really help with people's mental health, I know, for instance, that for other reasons there's teenage tech addiction camps, where they go on these camps which are device-free, and they feel so much better for a number of reasons, and their anxiety lifts. I mean, teenage anxiety now is a huge epidemic. How much of that is social media use versus the actual biochemical effects of EMF exposure? We don't know that. Is there any way that you are looking at or that we can find together evidence that reducing EMF exposure has tangible health benefits?

Nick Pineault:

It's difficult. The best evidence we have is from health practitioners who do this with their patients and see the results. So, I guess that's one available evidence that is clinical rather than double-blind placebo studies where we try to isolate EMFs as a factor. So, if you ask, for example, Dr. Toril Jelter, who practices in the US if I'm not mistaken, she takes care of kids with ADHD, autism, all sorts of disorders that are neurological in nature. She shares a very easy protocol that people can do, which is very simple. She eliminates the baby monitor, turns off the WiFi at night, and then turns off electricity to the entire kid bedroom at night. I think there's also cordless phones there that are also a very big exposure that

sometimes there can be the base station in the kid's bedroom. Also, no cellphones. So, imagine you get the devices out of the room and then you turn off the electricity to that room, which is something we didn't talk about, but it will reduce some other EMFs. She finds that a large percentage of her patient base see a tremendous difference in their kids when they start doing that.

Nick Pineault:

So, the proof is there in when you eliminate the agent you have in certain cases a dramatic result. Kid starts being calmer, for example, or more sound sleep. The effect is compounding over time. So, if they haven't been sleeping very well and maybe they have ADD, well, over time, imagine a year of sleeping well what it can do to the body. Well, of course, it will be calmer. I mean, after two days of sleeping well, I am calmer and I can think more clearly. So, we know it impacts us. So, that's the level of evidence we have.

Nick Pineault:

As far as scientific studies go, experimenting on one group using a cellphone versus not, it's tricky, we have the evidence that not using a phone during your pregnancy can lead to different outcomes in your kids when they're born. So, we have, for example, there's I think it's four or five separate studies including very large cohorts in Denmark and the Netherlands, if I'm not mistaken, that have looked at pregnant women and how much they exposed their fetuses because they wore little device that try to quantify how much radiation they're exposing their babies to during pregnancy and then their children were much more prone to ADD, ADHD and also allergies, food allergies when they were of older age. I don't know how much they followed up. I think it was maybe three to six years old, but that's something. The evidence is just staggering. All these studies have been done in the last decade alone. So, it's brand new information. Also, the rats and mice study also confirmed the same phenomenon in animals.

Nick Pineault:

I guess the evidence will be mounting as far as how much it can impact us, but this is an interesting thing that even generational exposure will have an impact on mental health directly, like ADD, ADHD or the chance that your kid has a harder time regulating his brain, right? So, do it for your kids and also if your kids have already been exposed while you were pregnant because you didn't know this information, well, you can always start now. When they reduce exposure, we can to some extent repair the damage and go back. We don't know exactly if the damage is permanent or anything like that, but, for sure, if it's reducing your antioxidants or your resources or disrupting hormones, when you stop having that behaviour and you reduce exposure, you give your body more chance to recuperate and go back to homeostasis.

Kirkland Newman:

Exactly. It's interesting what you were saying about the allergies because the allergies we know are very linked to the gut bacteria, to leaky gut, and inflammation. One of the fascinating studies you mentioned in your book is the impact of EMFs on gut bacteria and on potentiating pathogenic bacteria and reducing healthy bacteria leading potentially to leaky gut impacting the barrier, which then can lead to increased allergies. It's fascinating that we know that the babies inherit their mother's microbiomes.

Kirkland Newman:

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When you talk about the epigenetic effects also over the generations, I mean, this is something that we're, as I say, the experimental generation and we just don't know how far this is going to go or where it's going to end up. I think that's quite scary. Even if you say, okay, all of this technology is improving, the safety profile is improving and we'll get better, we'll still be left with a hell of a lot of old technology, which will need to be dismantled or changed and that's going to take a long time. So, it's a pretty bleak outlook in some ways, but I think you've given us a tremendous amount of information not only on the depressing stuff, but also what we can do about it to protect ourselves, and I think that's really, really, really important. So, thank you so, so much for that.

Kirkland Newman:

I think certainly one of the things that people need to think about in terms of mental health and their nervous system and just one final thing because mental health is so tied to the health of our nervous system, and being in our parasympathetic, which if we're constantly in a sympathetic arousal, we'll have a harder time healing, we'll get more anxious, more depressed, have more cognitive decline. It's interesting what you say about the impact of the EMFs on the nervous system because more and more we're linking the health of our nervous system and its resilience to mental health, essentially.

Kirkland Newman:

So, Nicolas Pineault, thank you so much for your time. That's been amazing. I absolutely love your book, *The Non-Tinfoil Guide to EMFs*."

Nick Pineault:

Thank you.

Kirkland Newman:

Highly recommend this and also your wonderful course, which I think sounds absolutely fascinating. We'll put all this in the show notes, but the electropollutionfix.com. Thank you very much for your time. I think, really, you're doing fantastic work in the world. So, keep it up.

Nick Pineault:

Thank you so much. I'm honoured. It's been a blast and I hope that people can at least try one thing that they learned in this interview. Try it tonight and see how you feel. If you sleep better, talk about it. You don't have to share all the doom and gloom or anything like that. It can be just a curiosity, "Well, I slept better when I turned off my phone. What do you think?" Then people spread the word and a positive approach like this benefit-driven, communication instead of, "Oh, this phone could kill you," sometimes this works better. So, I try to still focus on that and delivering the good news. So, try to take that positive approach even with family members and see how it works. Usually, it will work better.

Kirkland Newman:

I think that's a great idea because you don't want these things to become self-fulfilling prophecies. I hesitate to tell my teenagers, "Well, you're going to get brain cancer if you continue to do that." You're like, "Actually, it might be better just to use one with the chord," but, yeah. That's fantastic. Thank you so much, Nicolas. We'll put all the information in the show notes and look forward to seeing you again soon.

The MindHealth360 Show - Nick Pineault

Kirkland Newman:

Thank you so much for listening to The MindHealth360 Show. I hope that we've helped you realise that mental health symptoms have root causes that can and need to be addressed in order to sustainably heal, and have given you some ideas about steps you, your loved ones or clients may take to start their healing journey. Please share this interview with anyone you think may find it helpful and don't forget to subscribe to keep up-to-date with our latest interviews on integrative mental health.

Kirkland Newman:

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