



Dr. Ron Ehrlich: Hello and welcome to Unstress. My name's Dr. Ron Ehrlich.

Now, I got my first mobile phone, oh, jeez, well, it would've been over 20 years ago, and actually I was so thrilled by it all. The fact that you could make phone calls from anywhere was incredible. And then as the whole thing evolved into smartphones, 10 or so years ago, I really wasn't asking questions like my next guest, [Lyn McLean](#).

Lyn started asking questions about the effect of wireless radiation on our health in 1996, over 20 years ago. So when you think about it, our bodies, in fact every atom in the universe, is both energy and matter. Every cell functions on tiny little currents and every nerve functions on tiny little currents, and to imagine that wireless radiation doesn't affect us in some way is kind of naïve at the very best.

When you think back to some of the other health issues, or even currently or in the past, I mean, what about cigarettes? We knew cigarettes were bad, or the science was in on cigarettes in the 1930s and '40s, but it was 2009 when the American FDA finally deemed it to be an addictive substance. Asbestos: it took about 30 years for that to happen, and the lead time on a lot of these diseases is a really long time. Sugar: cover up. Let's blame fats. Climate change: despite the fact that 3,000 scientists say that climate change is a problem, the coal industries saying, well, the science isn't in on it is ridiculous.

So the same goes here for wireless radiation, and Lyn has written a fabulous book called [Wireless Wise Families: What Every Parent Needs to Know about Wireless Technology](#). And I've just appropriated that name for this episode and just said Wireless-Wise People, because this is something that I think every person, whether you're a parent or not, needs to know about wireless radiation. So I hope you enjoy this chat that I had with Lyn McLean.

Welcome to the show, Lyn.

Lyn McLean: Thank you very much, Ron. It's lovely to be here.

Dr. Ron Ehrlich: Lyn, tell me how you got into this area of wireless radiation.

Lyn McLean: Well, this is a very long story and I often wonder why I got into it myself. There are a whole lot of answers to that, and one is that I was really, really interested in the science and read some fascinating research that was done back in the '60s by a scientist called Robert Becker. I could go on at length about that, but I won't.

I think one of the other reasons is that I'm a mum and it matters to me a great deal about what my own kids are being exposed to and what other people's kids are being exposed to, so it's become very important to try and get the message out so that other mums understand what these devices are doing and how they're affecting people, and they can then make informed choices for their families too.

And the third reason, Ron, is that back in the day, and I started getting involved in this in 1996, there was really no help for people in Australia about this issue, and so I found myself by accident in a position where I was able to provide help and provide contacts for people and that became something that meant a great deal to me and I didn't want to just walk away from this issue and leave people in need. A lot of the motivation for what I've done over the last 20 years has been to try and make sure that there is help for people, that there are ways that people can improve their situation and minimize their exposure, and hopefully improve their health.

Dr. Ron Ehrlich: Great. Well, I often say that if we're waiting for the change to come from above, and by that I'm not talking in a religious perspective, but from the governments and regulatory bodies, sometimes, well, we could be waiting for a long time, so the change has to come from the ground up and you're a great example of that. Let's just go back to some basics here. Wireless radiation: what do we mean by that? Where does it come from?

Lyn McLean: Well, wireless radiation's the radiation that's emitted from all our wireless devices, so that's our mobile phones and phone towers, NBN towers, inside the home, Wi-Fi networks, tablets, cordless phones, baby monitors and microwave ovens. They all emit this wireless radiation. Sometimes it's called radio-frequency radiation, but lets for today just refer to it as wireless radiation.

Dr. Ron Ehrlich: Right, and we kind of assume that it is safe. I mean, if it's out there, it's been tested, right? Shouldn't we assume it's perfectly safe?

Lyn McLean: Well, you would think so, and you would think that it had been tested before going on to the market, but actually that's not the case. These wireless technologies have been released on to the market before being tested for health and safety. Now, they do have to comply with the standard, but there's no guarantee that complying with that standard protects health, and so all that research about whether mobile phones are risk for brain tumors, whether Wi-Fi's affecting our bodies and our fertility, all of that is being done now, it's being done after the event once people are already exposed to the radiation, and that's, in my mind, a big concern.

Dr. Ron Ehrlich: Yeah. Well, we've had some precedence for it, haven't we? I mean, smoking, asbestos, you know, after the horse has bolted. It's almost like there are two ways of looking at this. One is to check whether something's safe before you issue it, and the other is to issue it and let us all be part of a big experiment. Is that's what's happening, obviously?

Lyn McLean: Very much, and I think particularly for kids, because we've now got kids that are being exposed to this radiation from before birth, and this has never happened in the history of the world before, so we just don't know what exposing pregnant women and their babies for 20, 30, 40 years is going to do. I think we might get a few surprises down the track.

Dr. Ron Ehrlich: Now, I know you mentioned this book, Robert Becker, and I'm familiar with it too. The book's all about ... What was it called again? [The Electric Body](#) [correction: [The Body Electric](#)], or something?

Lyn McLean: That was one of his books and the other was called [Cross Currents](#).

Dr. Ron Ehrlich: Right, and I think one of the things that I think is important for our listener and all of us to understand is that we, as a human being, are actually walking electricity, are we not?

Lyn McLean: Oh, that's absolutely right, and I think that's well acknowledged and it's well known that if you stand in a field, that field is being conducted through the body. So we know that there are fields in the human body, and we know that we can measure these fields too.

Scientists do this all the time, because if you think of an electric cardiogram or an electric encephalogram, they're all measuring these waves that our heart put out or our brains put out, so we can prove through those sorts of devices that the body is electromagnetic in nature.

Dr. Ron Ehrlich: And so is every single cell in our body as it exchanges nutrients across the cell membrane. It's an electrical or osmotic change that happens. It's almost naïve to assume that it doesn't have some effect.

Lyn McLean: Well, that's right, and that was some of the really exciting research that Robert Becker did, because he was able to find out that these fields, these electric fields to the body actually help the body repair, and he was an orthopedic surgeon so he was able to use that information to help knit difficult to knit fractures when people had broken limbs and so forth.

Dr. Ron Ehrlich: The corollary from that might be, hey, maybe this radiation's good for us.

Lyn McLean: Oh, well I think that in some frequencies it is, and there are certainly people who are using electromagnetic frequencies to repair the body, but the problem is that there are some frequencies that are not so good for us, and that's the concern. I think some of those frequencies are the ones that we're being exposed to in our everyday wireless environments.

Dr. Ron Ehrlich: Now, we're speaking in Australia here, you and I, we're in Australia, and how do the regulations vary across the world? I mean, there'd be a range of what countries consider safe and what's not. How does that get worked out? Where are we at in Australia and how do we compare with the rest of the world?

Lyn McLean: Oh, not very favorably, Ron. Our regulations in Australia are very similar to those of the World Health Organization and an organization called ICNIRP, which is part of the World Health Organization, and they allow the general public and

workers to be exposed to, let's say, quite high levels of radiation. It's a little bit complicated to actually describe simply because those levels vary at different frequencies.

But certainly there are other countries around the world who introduce much stricter standards, and Russia is one of those. Russia's standards have been very much stricter since it did a lot of research on this issue, again going back to around the 1960s. The other countries like India, for example, like France, like Italy, have taken steps to reduce people's exposure to this kind of radiation.

Dr. Ron Ehrlich: Interesting, isn't it? I know when I looked at my iPhone, and buried somewhere deep in the instructions is a warning to not put it within five millimeters of my body, having read that after I'd put it to my ear for many, many years, it came as a bit of a surprise.

So there's two things, isn't there? One is heat and the other is the wireless, the actual wireless radiation.

Lyn McLean: Well, that's right, and there is an assumption that the body's only harmed by radiation if there's a heating effect. But that's not necessarily the case because there are lots of other ways that the body could experience harm from the exposure. There are a lot of scientists around the world who are looking at those different methods and putting forward different theories about how these fields could affect the body.

But I think that you've mentioned an important point when you say that your mobile phone instructs you to keep your phone at a distance from the body. The interesting thing is that most mobile phones have got those sorts of warnings, and so do things like tablets, and that's because they're not designed to be held right against the body. And if you hold a phone or a tablet against your body while you're using it, you can be exposed to more radiation than the standard allows, even though the standard allows more radiation than some people would say is safe. That's important for people to know and unfortunately, not many people are aware of that.

Dr. Ron Ehrlich: Yeah, so when we look at some of these devices, the phone is one we often, or people will often put to their ear or brain, the laptop, self-explanatory there, isn't it? It sits often in the lap of people, which is quite close to the genitals, the reproductive organs. How are these radiations affecting us? What's the potential harm?

Lyn McLean: Well, big question there, Ron. We know that the radiation is having a range of detrimental effects on the body, so it's doing things like damaging our DNA and our chromosomes, it's changing enzymes and the way cells in our body communicate with each other, it's reducing immunity, it's damaging sperm and therefore potentially fertility, it's affecting hormones, it's causing free radical damage in our bodies, it's creating what's called a stress response in the body, it's changing our brain wave patterns. So we know it's doing all of those things and I don't think there's any argument about that.

The argument is, well, how does that impact our health and wellbeing? And we don't really know the answers to that, but what we do know is that there are a lot of studies that are

showing a link with mobile phone radiation, for example, and brain tumors. Now, not every study has found that connection, but quite a lot have. As a result of that research, the radiation is classified as possible, that is a class 2B carcinogen by the International Agency for Research on Cancer. So we've now got a fairly major body saying we think this could be quite a big risk for the body, but also we've got a lot of governments around the world that are starting to say things like, well, we think you should take precautions.

France, for example, has said that Wi-Fi shouldn't be present in childcare centers and that children under the age of ... Well, I'd have to check the age. I think it's more than the age of seven shouldn't be using mobile phones. So there is legislation that's cropping up around the world designed to protect people and reduce their exposure, and that's based on fact that there is quite a body of science that's showing risk.

Dr. Ron Ehrlich: Now, in case our listener missed this one, did you just say that the radiation is now being classed as a class 2 carcinogen?

Lyn McLean: Yes, that's right, a 2B carcinogen.

Dr. Ron Ehrlich: 2B carcinogen, so carcinogen. I wanted to repeat that because you kind of slipped that in and I thought, "Whoa, that's a big one." Let's not let that one pass over us or wash over us and ignore that one. **The radiation, wireless radiation, has been classified as a class 2B carcinogen.**

Lyn McLean: Yeah, now what that means is that it's a possible carcinogen, and there are quite a few researchers around the world now who've looked at the studies that have come out since that classification said, well, there's really enough evidence now for it to be classified as a class 2A carcinogen, which would be a probable carcinogen.

So, again, we don't know that this radiation's definitely going to cause cancer, but we know that there's a possibility and maybe it likely could.

Dr. Ron Ehrlich: Yeah. Well, given eight million people die of cancer every year globally, and given I don't think anybody listening to this would not know somebody within one degree of separation who hasn't had cancer, and that actually includes myself, so this is a big problem that we are all, from all ages, being exposed to.

The other thing you mentioned that I wanted to pick up on is the research is contradictory, and I think this is part of the issues we have in so-called "evidence-based medicine" because, of course, if industry were doing their own research, I'm fairly sure that any negative research wouldn't be as widely reported as independent research. Is that a case in this instance? Is there much independent research being done?

Lyn McLean: Oh, no, there isn't, unfortunately, but there's not a lot of research that's being done in Australia or America or in the western world at the moment. A lot of it is coming from places like Greece and Turkey and China, unfortunately. Given the importance of this issue, we should be seeing a lot more research that's being done on it.

But you're right, the research that's being done by industry, and keep in mind that a lot of the research is being funded by industry, does tend to find, surprisingly, that there are no harmful effects. But when you look at the independent research, it's finding that yes, Ron, there are effects. One scientist, Henry Lai, from the United States, went through the research and he analyzed the results of studies according to whether they were done by the telecommunications industry or if they were done independently, and he actually saw that split.

Dr. Ron Ehrlich: Well, I think it would be naïve from a commercial perspective to expect anything less, and when we look through health care, like the effectiveness of statins, for example, industry research is 20 times more positive than independent research, antidepressants, four times more positive when done by industry than independents, so it's across the board. And that's why I often say it's hard sometimes to distinguish evidence-based medicine from evidence-based marketing.

The other interesting one you mentioned is that it's damaging things like DNA, enzymes, chromosomes, hormones, sperm. These are things that don't result in a quick ... Like, if you were infected today, tomorrow you'll be sick. That's a quick response. But some of these things, just like in smoking or asbestos, may take years to form. What do you think about that? I mean, how long is the lead time on some of these problems?

Lyn McLean: Yeah, well we don't actually know. For some people there's an immediate reaction. So people I know, for example, people in our network, will react very quickly if they're exposed to wireless radiation and they develop all sorts of uncomfortable symptoms, and some of those will persist for a day, a week, perhaps. But a lot of people don't react immediately and so will think, "Okay, well I'm not really being affected by this wireless radiation." But a lot of people are developing chronic health problems, too, and there seems to be a link between some of those chronic health problems and this sort of exposure.

If you look at things like chronic fatigue, for example, at multiple clinical sensitivity, at fibromyalgia, lupus, even post traumatic stress disorder, they have a link. The biochemistry seems to be pretty related to what's going on in the body of people who are affected by this radiation. So what we think is happening is that there are biochemical changes that are taking place for a variety of reasons, and the symptoms are the same, that people are developing these chronic diseases, or chronic conditions, and that electromagnetic radiation or wireless radiation could be implicated, so it makes sense for people to reduce their exposure.

We were talking about cancer a moment ago, Ron, and I just wanted to make the point that people with cancer absorb more radiation than people without cancer. In other words, cancer cells absorb more radiation. So there are a lot of very sensible reasons for reducing exposure.

Dr. Ron Ehrlich: Wow! Now hang on, people with cancer absorb more radiation than people without cancer.

Lyn McLean: Yeah, the cancer cells do, yes.

Dr. Ron Ehrlich: Wow! Okay, that's a pearl. Thank you. I mean, I've been keeping the phone away from me and the laptops as much as I can, but there's another motivation.

Look, you've written this fabulous book, [Wireless Wise Families](#), and I'd love to get you back to talk about the effect of wireless radiation and the family, 'cause that's all very important. Just very quickly before we finish today, what are some of the things we can do to reduce our exposure?

Lyn McLean: Well, the number one thing is to use wired connections instead of wireless connections where you can, so that might be using a wired phone instead of a cordless phone or a mobile phone, it could be using a wired computer or wired internet connections instead of wireless connections, using a wired laptop, for example, instead of a tablet. Because a tablet, there's really probably no safe way in using that unless it's on airplane mode. So, **love your wires**, that's the first thing.

Another thing is for people to keep these devices at a distance from the body, so the further away they are, the better. You don't want, for example, to be sleeping with your mobile phone turned on next to your bed or even under your pillow, as lots of people do. You don't want to be putting these devices, the tablets or the laptops, on your lap when you're using them, even though they're called laptops, so keep a distance is really important. That means keeping your mobile phone away from you when you're speaking, for example.

The other thing is to turn the wireless function off, so turn off your Wifi at night, turn off your mobile phone when you don't actually need to make a call, have your tablet on airplane mode as much as you can, so minimize your exposure to this wireless radiation. Those are all things that I think are really important, and I think that it's important for parents to teach their kids to do this, because today's kids don't know any other environment. They don't know about .

Dr. Ron Ehrlich: There was a world before wireless computer. I don't know what we did in that world, but gee wizz, I still remember it.

Look, thank you so much for joining us today, Lyn. [The book \[Wireless Wise Families: What every parent needs to know about wireless technologies\]](#) that you've written, and I want to get you back to talk about the book and its impact on families and preconception postnatal school aged children, but thank you so much for joining us today.

Lyn McLean: It's been an absolute pleasure. Lovely talking to you.

Dr. Ron Ehrlich: So there it is, folks. Quite a lot to think about. I mean, our relationship with technology is challenging *enough*. Albert Einstein once said that a society controlled by technology is a society of idiots, and gee, he may not have even imagined, well, maybe he did, I mean he's a pretty smart guy. He may not have imagined about mobile phones and how buried we are, our heads constantly buried in it, but this is more about the radiation effects rather than the social effects on our intellect. We may not be a society of

idiots just yet, although when you see the leader of the free world reduced to 140 characters for some pretty important messaging, you start to wonder.

But Lyn left us with three guidelines and whenever we talk about environmental stresses, being aware of something is really the first step, and she left us with three really good pieces of advice: **love your wires, keep your distance and turn that wireless off**. Move stuff away from you, don't put it near your head or near your groin or your reproductive organs or any of that, just keep the wireless radiation as far away from you as you can.

Now, there were so many issues that were raised. I wanted to get Lyn back and I will get her back to talk about some of the problems. Until then, be well. See you next week.

[You can listen to Part 2 of Lyn McLean's interview here.](#)

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