

**Dr. Ron Ehrlich:** Hello, and welcome to Unstress. My name's Dr. Ron Ehrlich. Now, if you've followed [the episode](#) we did with Lyn McLean and Wireless-wise People, and [her terrific book](#) which I recommended, you may have read it. Today, we're going to get her back, because I wanted to dig down into some of the problems that people are carrying around this radiation in our pockets, resting it in our laps, putting it next to our brains. It's actually classified as a potential carcinogen. That is, it's got the potential to cause cancer. Now, that's a statement that rolls off the tongue pretty quickly and easily, but the implications, I think you'll all agree, is pretty serious.

Now as I said, her book's called [Wireless Wise Families: What every parent needs to know about wireless technologies](#), but this is something, whether you're a parent or not, that every person needs to know about. Today we're going to be discussing some problems about conception, preconception, health, and a range of other things. I hope you do enjoy this conversation I had with Lyn McLean. Welcome back to the show, Lyn.

**Lyn McLean:** Thanks very much, Ron. It's a pleasure to be here.

**Dr. Ron Ehrlich:** Now, Lyn, [the last time we spoke](#) we kind of defined what wireless radiation was, that it was in WiFi obviously, also in our telephones, laptops, tablets, cordless phones, baby monitors, we're going to come to that in a moment. You mentioned that it was actually being classified as a class 2B carcinogen, possibly cancer-causing. I wanted to focus on your book today, because this wonderful book, [Wireless Wise Families: What Every Parent Needs to Know About Wireless Technology](#). Even if you're not a parent, you're a person, so you probably need to know what's in here as well, anyway.

Lyn, let's just talk about what this impact can have on preconception, post-natal, school-age children, et cetera. What's the effect of this radiation on the family?

**Lyn McLean:** Well, this is so interesting, Ron, and I'm really glad you asked that question, because what research is showing now is that children who are exposed to radiation before birth appear to have problems after birth. For example, children who were exposed to mobile phone radiation, when their mothers used mobile phones before they were born or just after they were born, by the time these children were aged seven, they started to show more behaviour problems and learning problems than unexposed children or lesser exposed children.

These are problems like ADHD sorts of behaviour and, as I say, learning problems. So not only can it affect the fetus, but it can affect the child at least up to age seven. That was as far as the children had grown by the time the experiment was done, so who knows how much further into their lives it could potentially affect them. I think it's really important for mums to realise that what they exposed themselves to could affect their unborn child. That's not just behaviour but also things like exposed rats, for example, had things like delayed puberty or change to the nervous system, so we know that it's causing changes in fetus.

Now that's true with mums, but even dads can be affected by this radiation. We know that in today's society, there are lots of families that are having trouble with fertility. This wireless radiation has been associated with infertility because it's been shown to affect sperm and have effects that are symptomatic, I guess, with infertility. Those studies have been done in humans, but also animals.

It makes me wonder how many people are going to fertility clinics and going through long processes when perhaps if they just exposed themselves to less radiation, their circumstances might change quite substantially. So, that's just something for your listeners to think about.

**Dr. Ron Ehrlich:** Yeah, yeah. Well, of course, I was just picturing people who are pregnant or men who have got their laptops in their laps, very close to where our sperm is being produced, one can only imagine. But children are vulnerable, aren't they? Children are always more vulnerable.

**Lyn McLean:** Yeah, definitely, and the World Health Organization says that children are more vulnerable to environmental factors. When we talk about things like mobile phone radiation, there are a number of reasons for it and one is that their skulls are thinner so more radiation actually penetrates and that's been mapped.

**Dr. Ron Ehrlich:** Yes.

**Lyn McLean:** Also, their bodies are smaller, so they're more susceptible to the size of the waves. But apart from that, they've got a whole lifetime of exposure. So, if we expose somebody when they're a fetus and in 40 years time, they're only going to be 40 years old. If they develop problems at that age, they've got potentially, maybe decades of life that could be impaired by having things like cancer or any kind of health problem.

Whereas, I think in previous years we've been mainly exposing adults, so those adult exposed to 40 years, we're not going to actually see the same kinds of catastrophic effects on a generation. I think it's really important that we consider the long-term impacts on our kids, keeping in mind that this has never been studied.

**Dr. Ron Ehrlich:** Human experiment. We're all guinea pigs in this human experiment. [Last time we spoke](#), Lyn, you made the point that this kind of radiation, which I'll repeat is now accepted as a possible carcinogen, has the potential to damage DNA enzymes, chromosomes, hormones, sperm, et cetera, and the lead time on diseases manifesting themselves. This is another thing I think we need to get our heads around, it certainly was the case with smoking or with asbestos, that the lead time on these diseases can be very long.

**Lyn McLean:** Yeah, that's right, and for brain tumors it can take about 40 years for these problems to show up. I think that's why we want to be reducing exposure where we possibly can.

**Dr. Ron Ehrlich:** Yeah. I think there's this thing called the precautionary principle, where if something has the potential to cause harm, it's best avoided, until it's proved to be perfectly safe. Unless of course, you want to be part of that experiment.

**Lyn McLean:** Well, that's right. If we think about our kids, just think of the number of things that we do to protect them, for example, we put sun hats on them when they go and play, we put suntan cream on them, we put pool fences around our pools, we put seat belts on them when we go out. None of that's because we know that they're absolutely going to die or get cancer if we don't do those things, it's just a precaution. So if we take precautions in our everyday lives with our kids, why would we not be applying that principle to this sort of wireless radiation as well?

**Dr. Ron Ehrlich:** Now, Lyn, in your wonderful book, [Wireless Wise Families](#), you use the term 'popcorn brain'.

**Lyn McLean:** Yeah.

**Dr. Ron Ehrlich:** Can you explain what that means?

**Lyn McLean:** Well, we know that wireless radiation is actually affecting the brain, and it's doing so in ways that are not very good. It's actually changing the structure of the brain and it's changing the behaviour of the brain. We have, for example, people who are not ... When I say people, I'm talking about kids, I'm talking about large numbers of people who are not able to concentrate as well, who have attention deficit sorts of behaviour. Who are not able to learn, who are not able to extract meaning from passages that they read in the same way that they were able to in previous generations, who are not able to concentrate for lengths of time in schools.

Now, I think every parent, every teacher, who cares is going to be saying, "Oh, yeah, yeah, yeah, we know that," because we see it in everyday life. This inability to concentrate, to focus, to be able to get into deep and meaningful context is affecting kids' learning, it's affecting their brain, the behaviour of the brain, as I said, the structure of their brains.

**Dr. Ron Ehrlich:** Well, there's a new term that I'm just exploring called "The Attention Economy", which is all of our mobile devices and social media and news, is competing for our attention. It does that in this kind of ... By distracting us with all sorts of stories and da-da-da-da. Here is another level of that "attention economy", and that is on a biological, on a physiological, on a cellular level, that not only is the message but the physiology is causing this problem in attention. It's so interesting to see what's going on.

**Lyn McLean:** Well, it really is. I think it's got enormous implications for society because what are we ... What's going to happen when this generation gets older, gets into university, gets into jobs that require concentration and other brainwave patterns, I guess? So, I think that's one aspect that's a bit of a concern about kids, but also, I guess from what you're saying, the brain is turned on all the time. Our alpha state, our state of concentration is on all the time. We're not getting a chance to just sit and relax and daydream and turn off, as I think we did in perhaps times gone by, because people are on their phone. If

they've got five seconds free, they're sending a text, they're checking their messages. We're always turned on.

Now, what that's doing is it's contributing to states of anxiety and depression. This is having a big impact on individuals but also on families.

**Dr. Ron Ehrlich:** Yeah. Wow, that's such a ... Anyway, tell me about schools, because the WiFi's running through schools and kids are bringing phones to school and they're meant to have their laptops, and everyone's wired, but there are some schools in the world that have actually banned WiFi. Can you tell us about that?

**Lyn McLean:** Yeah, well that's right. One school, for example, this is not so much to do with WiFi, but it said that children were no longer to use mobile phones at school, and what they found is that kids' performance in their exams improved quite substantially after banning mobile phones. I think that's one interesting example, but yes, there are schools in different places around the world, there is one in South Australia, for example, that don't have WiFi, and that's partly because of the concerns of parents but also partly to do with the health risks.

Even litigation, because what we're seeing in America is families, or I should say one family, taking private school to court based on the fact that their child developed such strong reactions to wireless radiation from a router at school that he is no longer able to go to school anymore.

Wireless radiation at schools is having quite a big impact and we know it in our network which, of course, does have a lot of people who are affected by this radiation, we know families where kids are no longer able to attend school because they react so badly to the wireless radiation and where parents had to take them home to homeschool them. Again, that's another really significant change in people's social lives and it has an economic cost on those families as well.

**Dr. Ron Ehrlich:** Now, you also mention other devices and baby monitors are one you mentioned. Tell us about that.

**Lyn McLean:** Oh, baby monitors are, for me, a big concern because they emit wireless radiation, they often emit quite a lot of wireless radiation. Most monitors can be put right next to a baby, perhaps as the baby ... Next to the baby's cot, and so that child can be exposed for really long periods of time each day at their most vulnerable time and that's, as we've said, when babies and children are young, they are absorbing more radiation. It concerns me that these babies that are waking and sleeping in a wireless field and that this wireless radiation is having a potentially harmful effect on their bodies, and that effect could potentially be continuing into their future lives.

I think my message for parents is just please look around at what sort of devices are in your house that are emitting wireless radiation and consider their effects on your families and whether you actually need that baby monitor in the first place.

**Dr. Ron Ehrlich:** Lyn, we're going to have links to [your website](#) and of course [this book](#). Can we leave our listener now with a hope that they are in control of their own destiny or at least some control? Can you give us three ... I think you gave us some tips last time, but I think they're worth reiterating on, what would you suggest our listeners do to minimize their exposure?

**Lyn McLean:** Okie doke. Well, number one is to wired connections rather than wireless wherever you can. Number two is to keep a separation, keep these devices away from your body and where people spend time.

**Dr. Ron Ehrlich:** What's a safe distance?

**Lyn McLean:** Any distance.

**Dr. Ron Ehrlich:** More than five millimeters, at least.

**Lyn McLean:** Yeah, from millimeters to centimeters to meters, and it depends on sensitivity because there are people in our network who can't be in the vicinity of somebody on a mobile phone, for example, so we're talking about meters away. We have one lady, for example, who is able to tell when her neighbors are downloading information from their WiFi and she's able to tell how much data they've downloaded simply by the reactions in her body. That neighbor would be many, many meters away but still this person is sensitive enough to react to that.

Going back to what parents can ... My other suggestion would be that people actually find out what the exposure is in your homes because we're always getting people saying, "Oh, I haven't really got very much wireless in my house." Then they hire our meters, they check their homes and say, "Oh, I didn't know this was giving out wireless radiation. I didn't know that was giving out wireless radiation." You can actually measure and find out what's there, where it's coming from and how far that's extending. If you know that information then you can make really sensible decisions about, well, turn it off or move it from here to there.

**Dr. Ron Ehrlich:** What's the monitor? Tell us a little bit about what ... Is it a big device? Is it an expensive device?

**Lyn McLean:** No, no, no. [We have little hand-held meters](#) so they're quite small, easy to us. You press the button and it gives you the information that you need. People can purchase them or they can hire them economically. We try to make this information available to anybody at reasonable cost and we provide backup information too, about what to do and what these readings actually mean. I think when you measure, it makes this makes this radiation visible, in a sense, because you can actually see what's where. I think you actually need that information in order to be able to make informed decisions.

I'd like people to keep in mind too, you might think, "Oh, there's all this radiation in the wider environment," you know, neighbors, shopping centers, work, schools, whatever, but the majority of the radiation your family's exposed to is most likely coming from your own wireless equipment. We see that all the time in homes. If you can reduce the exposure from

your equipment in your home, you will make the biggest contribution to your whole family's well being on this issue.

**Dr. Ron Ehrlich:** Fantastic. Well, what a great note to finish on, that to empower people to take control of their own environment and make the biggest difference to their own health. That's the message we were always trying to support. Lyn, it's been terrific talking to you. We're going to have links to this book, [Wireless Wise Families: What Every Parent, and I would add to that person, Needs To Know About Wireless Technology](#). Thank you so much for joining us today.

**Lyn McLean:** It's been my great pleasure Ron. Thank you very much for the invitation and I enjoyed talking with you.

**Dr. Ron Ehrlich:** Thank you. Now, there's a theme that we will continually be coming back to in this podcast series, and that is the precautionary principle. If something has the potential to cause harm, minimize your exposure to it. I mean, it is the case with all environment chemicals, I believe, and wireless radiation is no different. If with knowledge comes power, you have the power to take control and to make, hopefully, informed decisions that will make a difference to your health and the health of those around you. I hope you've enjoyed today's program. Until next week, this is, as I say, Dr. Ron Ehrlich. Be well.

**You can listen to my first interview with Lyn McLean [here](#).**

**If you are in Sydney and would like to have a home assessment by Lyn McLean (which my family and I have done) or [hire a meter](#), you can contact Lyn at [EMR Australia](#). I also highly recommend Lyn's new book, [Wireless Wise Families: What every parent needs to know about wireless technologies](#).**

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