



Electrical smog in and around our homes could be triggering symptoms in about a third of us without our knowledge.

WI-FI'S ELECTRIC SHOCK

WIRELESS NET HOOPLA MASKS GROWING CONCERN OVER FREQUENCY POLLUTION

By ADRIA VASIL

There's something lonely about parties. Especially if you're one of the few who isn't celebrating. And as laptop lovers citywide rejoice in the announcement that downtown Toronto will be a wireless Internet hot spot by the fall, critics worry that we may be feeding a new form of smog that hangs in the air without a trace and makes a growing number of us sick: electrical pollution.

Whether it's fluorescent lights, cellphones or computer screens, more and more of us are realizing that the technology we've welcomed into our homes and offices is making us ill. According to stats from Sweden and Britain, about 2 or 3 per cent of the population suffers from potentially debilitating electro-hypersensitivity, or EHS. Symptoms are all over the map, and include nausea, headaches, chronic fatigue, chronic pain, tinnitus and rashes, to name a few.

Researchers also say that many more, over a third of us, are a little electro-sensitive and just don't know it, blaming restless nights, office brain fog and Motrin moments on everything but our electrified environment.

While the biological effects of cellphones keep getting slammed in studies and researchers continue to examine the impact of electromagnetic fields on health, few people talk about the impact of Wi-Fi with any real specifics.

"Show me the studies that prove it is safe," says David Fancy, co-founder of the St. Catharines-based SWEEP (Safe Wireless Electric and Electromagnetic Policy) Initiative, a network for EHS sufferers across Canada.

"I've never seen anything from industry except blanket assurances from their PR departments," says the Brock U prof. "This is the identical strategy used by the tobacco industry in the 50s and 60s."

Indeed, Toronto Hydro, which is bringing the hot zone project to the table, is full of comforting messages. "I can assure you that the health and safety of our employees and customers is the number-one most important thing to this corporation," says president David Dobbin.

But even he can sound a little shaky on the data. "I understand where people are coming from. When you stand back and look at it, hey, there may be a concern," says Dobbin, "but at this

point in time we don't have any conclusive evidence that it's a health concern." Just inconclusive evidence, then? Dobbin says not to worry, the signal is about as weak as that from a baby monitor or a cordless phone.

But Dave Stetzer, a Wisconsin-based electrical engineer, says cordless phones make plenty of people sick. In fact, the consultant recommends people with sensitivities not only get rid of their cordless phones, but also toss their dimmer switches, energy-efficient fluorescent bulbs, halogen lights and, yes, baby monitors.

The link between them all? Radio frequencies. We know that wireless technology like cellphones and Wi-Fi emit such frequencies. But Stetzer explains that radio frequency surges created by appliances are also riding the electrical wiring in your home when they shouldn't be.

"A few years ago, if you had a computer and you didn't have a power bar surge suppressor, when a surge came though it could shut off your computer or destroy it," he says. That surge is dirty electricity. "We know it affects electrical equipment, but what our research is showing is that it's also having an effect on humans."

Magda Havas, an environmental science professor at Trent, has been studying just that. Havas teaches a course on the biological impact of electromagnetic radiation and radio frequencies – the only one of its kind in Canada.

Her work with people with MS, diabetes and other illnesses documents how many found their symptoms improved when their environments were electrically cleaned, so to speak, by placing capacitors (filters) throughout their homes. Brad Blumbergs has progressive multiple sclerosis and says he walked with a cane until he volunteered for Havas's experiment. Michelle Illiatovitch's daughter suffered from chronic fatigue from the time she was eight and saw her energy return once an electrician fixed some faulty wiring in their home and filters were put in her North York school.

Explains Havas, "We can take a person who is diabetic and put them in an [electrically] dirty environment, and their blood sugar levels rise. We then put them into a clean environment, and within half an hour their blood sugar levels are lower. It becomes a barometer."

Why diabetes? Scientists have long known stress affects the disease. But what researchers like Columbia cellular biophysics prof Martin Blank say is that electromagnetic waves and radio frequencies actually trigger stress responses in cells.

"If you need any more evidence that the body is telling you, 'I'm hurting,' this is it," says Blank. "That's what the stress response is – it's the testimony of the cells." And that response, he adds, is activated by very weak fields, not just the kinds emitted by major transmission lines, but the kind inundating your home.

"Who knows what being exposed to [multiple sources] simultaneously does? You've got TV broadcasting outside, you've got cellphones broadcasting outside. God knows what's going on with all these things coming and going together. There's no attempt to deal with it except in the vaguest way." And Wi-Fi? Blank says he wouldn't want it in his home.

Bottom line, says the prof, "the guys who say they're protecting us with these standards are not protecting us."

Health Canada, on the other hand, insists our exposure to all this stuff is safe. Says spokesperson Paul Duchesne, "We've conducted four studies since 2000 assessing the impact of radio frequency fields' [ability] to cause DNA damage and affect gene expression, and there's been no effect. We haven't seen any, anyway."

Still, Duchesne says, "we recommend that if people are experiencing any symptoms they should contact a physician so that treatment can happen." It's hard to imagine what kind of treatment the department expects doctors to give when both Health Canada and the World Health Organization discourage doctors from fuelling speculation about a connection between electrical pollution and EHS and suggest a psychological assessment be given.

"I wonder how many people out there are being misdiagnosed," asks Martin Weatherall, a retired Toronto cop who started developing a ringing in his ears and headaches when he moved into a new home. "They're being harmed by their electrical environments, and doctors are just sending them to a psychiatrist."

Even casual acceptance of the connection by official sources seems to be frowned on. A report released by Britain's Health Protection Agency's radiation division last fall was publicly smeared by the Department of Health there for suggesting that those with EHS stay away from electrical appliances. Nonetheless, Toronto Hydro's website encourages anyone concerned to move clock radios away from their bed and to air dry for a few minutes after bathing to cut down on hair dryer time. Kind of strange for a company that says there's nothing to worry about.

It seems both industry and regulators are seriously covering their asses. You know, just in case.

Many people aren't waiting around for global consensus on the issue. Some are calling inspection services like Dirty Electricity Solutions to measure radio frequencies in their homes and offices and outfit them with filters. The International Association of Fire Fighters has demanded that their stations not be fitted with cellphone antennas until more research proves their safety.

One municipality in Norway just banned cellphones from a public beach, to make it accessible to people with electro-sensitivities (like Norway's former prime minister, Gro Harlem Brundtland, who won't allow cellphones within 12 feet of her because she says they give her headaches).

Sweden, with an estimated 250,000 sufferers, leads the pack by recognizing EHS as a full-on disability. Authorities there will not only electrically retrofit your home and your office, but will make a restaurant remove, say, offensive lighting if an electrically sensitive person wants to eat there but can't – kind of like Canada's policy on wheelchair ramps. Stockholm's even planning a special EHS-friendly village.

A little closer to home, Lakehead University in Thunder Bay recently shocked onlookers by banning wireless Internet from most of its campus. A controversial move in these parts, but school prez Fred Gilbert says the jury's still out on Wi-Fi's health impact. That, he says, is enough to justify a precautionary approach, even if it means taking a ribbing from the tech sector and students.

"You run a certain risk if you go against the wave of implementation," says Gilbert. "But I think at the end of the day, when you can do something to avoid exposure until we have more definitive information, I think we're making the right decision."

Warren Bell sits on the board of the Canadian Association of Physicians for the Environment. He says this would not be the first time we've jumped on technology that works well in the lab but not so well in the real world. "Our industrial civilization has embarked on a lot of courses without a lot of documentation on their safety or lack of safety. As a result, we've got ourselves in a number of different corners, something we have subsequently come to regret."

Whether or not our beloved personal communications technology will be one of those isn't yet clear, says Bell, but based on our history, we might want to look a little harder before we jump. @

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