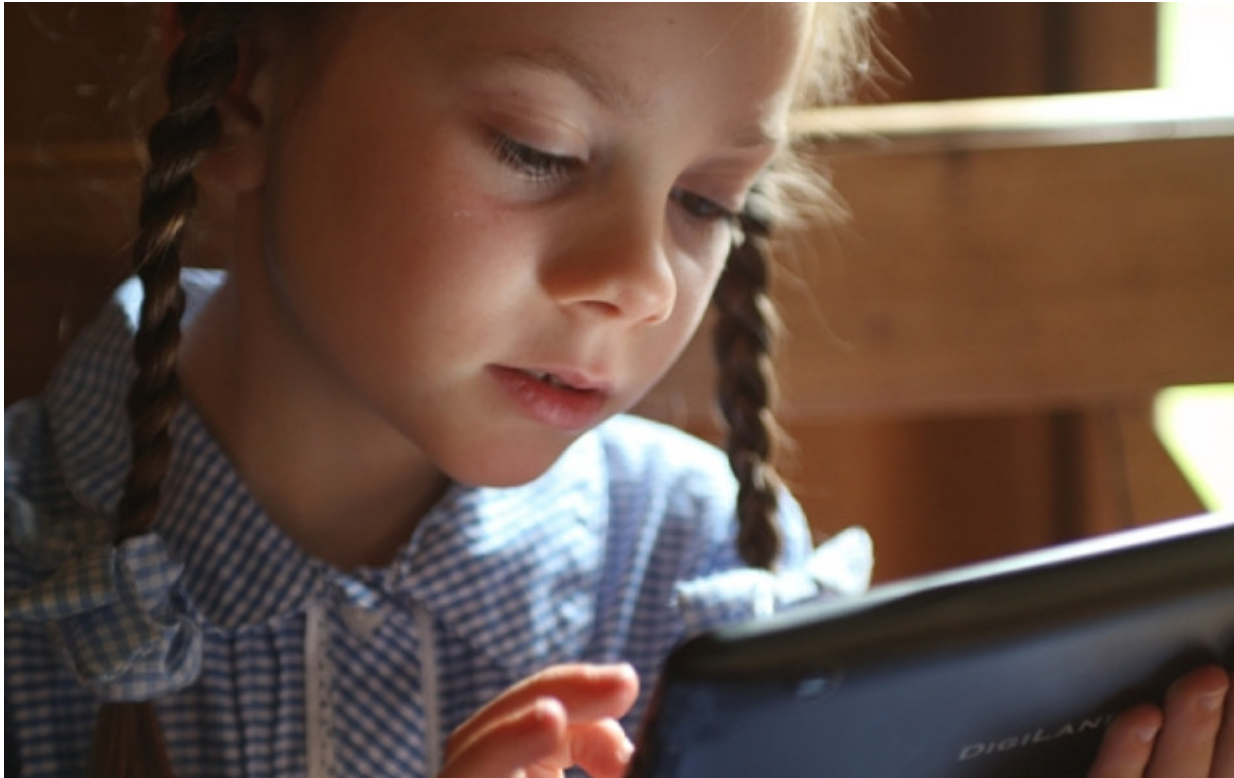


Is Wi-Fi making your child ill?

As France bans Wi-Fi in nursery and primary schools, a British expert who has given up using wireless gadgets says we should do the same



Invisible threat: children exposed to wireless radiation could be at risk



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By Florence Waters

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Six years ago, Dr Erica Mallery-Blythe moved to the country, stopped carrying a mobile phone and sacrificed a successful career in emergency medicine to focus on a new medical interest – radiation emitted by Wi-Fi, mobiles and other wireless devices.

She is now one of the country's few professional advisers on medical conditions related to radiofrequency (RF) radiation and other electromagnetic fields (EMFs).

“I was using wireless devices before most people I knew – I loved it,” says Mallery-Blythe, who was ahead of the tech trend even in 1985 when she was handed her first mobile phone, aged 10.

“But as soon as I started digesting the literature on EMFs it was a no-brainer,” she says of her decision to relinquish wireless gadgets.

“I wasn't willing to take that kind of risk for something that was purely convenient.”

- Wi-Fi fears: three-year study into health risks of mobiles to children's brains

Her interest in EMFs started in 2009 after she began noticing increasing trends in certain symptoms – headaches, insomnia, fatigue and palpitations, but also more serious conditions including brain tumours in young people, fertility problems and accelerating neurological diseases such as early onset Alzheimer's and autism. As yet there is still no scientific proof that relates these diseases to radiation, but Mallery-Blythe is among a not insignificant number of scientists and practitioners concerned by those studies that do highlight cause for more precaution.





Over the past few years, as Wi-Fi, laptops and iPads have become increasingly prevalent in classrooms, Mallery-Blythe says “hundreds” of families have sought her help with what they believe to be EMF-related diseases and health issues.

One such case is that of nine-year-old Jessica Lewis’s family. In the autumn term of 2011, Jessica started to complain that she was getting bad headaches at school. She was also feeling overly tired, developed rashes on her legs and her parents said she looked “completely washed out” after school, particularly on Mondays. A quick internet search threw up a forum where parents had written that their children complained of similar symptoms after installing Wi-Fi.

- Introducing the pepper grinder that will switch off your kids' phones

“I ignored it. We didn’t know anything about Wi-Fi then,” says Jessica’s father, Paul Lewis. “We didn’t think her school had it.”

Later that term, at a parents’ evening, he noticed a Wi-Fi router near Jessica’s desk in her new form classroom. As it turned out, Monday was the day of the week the whole class worked on laptops.

When a local GP backed up Lewis’s suspicions about Wi-Fi being the probable cause of Jessica’s headaches, he went to some lengths to try to convince Spotbrough Copley Junior School in Doncaster to use wires instead of Wi-Fi, even offering to pay for the school building to be wired with cables.

- Mobile phones unlikely to harm human health, scientists find

The school pointed out that a government report advised that Wi-Fi exposures were well within internationally accepted standards. Guidelines were reviewed in 2011 and still stand today. “We do not think the balance of available scientific evidence on radiofrequency has shifted and, as such, our position remains that PHE [Public Health England] sees no reason why Wi-Fi should not continue to be used in schools and in other places,” says Dr Simon Mann at PHE, the Department of Health’s agency in charge of health protection.



“That just didn’t add up,” says Lewis. Now Jessica is home-schooled, much to her frustration, because symptoms resurface when she’s exposed to Wi-Fi.

In February, insurance market Lloyd’s of London informed schools that it was excluding liability coverage for injuries “resulting from or

contributed to by electromagnetic fields, electromagnetic radiation, electromagnetism, radio waves or noise”, which means that school officials could be personally liable for exposing children and staff to microwave radiation.

“The Government is expecting head teachers to decide whether risk versus benefit is worthwhile. This seems unfair to me,” says Mallery-Blythe. “Most teachers don’t even know that RF is currently classified by the International Agency for Research on Cancer (IARC) as a Group 2B carcinogen, which means it is a possible cause of cancer in humans. There is a vast amount of published literature documenting the harmful effects on every biological system. Most people understandably don’t have time to read and digest it all.”

- Ban mobile phones and wireless networks in schools, say European leaders

As well as founding the Physicians’ Health Initiative for Radiation and Environment (PHIRE) to inform doctors of the issues and advise on best health practice, Mallery-Blythe gives talks to teachers around the country, in which she presents scientific studies that reveal both short and long-term effects of EMF exposure. One of the talks (below) has had more than 15,000 views on YouTube since last November. It’s an engaging summary of the issues that concerned scientists are discussing. “I try to present the facts the authorities aren’t highlighting,” says Mallery-Blythe.

I was surprised to find myself glued to it. Particularly eye-opening are the number of widely held misconceptions about radiation safety that Mallery-Blythe sets about busting. Standing a good distance away from a Wi-Fi router may reduce radiation intensity, for example, but low-intensity windows of radiation have been shown to be more harmful in some studies than higher-intensity exposures.

“At the moment people think their children are safe because the router is far away – or we don’t have to worry about the phone because it’s not near the brain. That’s common sense but unfortunately we now know it’s not quite true,” she says, pointing out that the brain is better protected than some more vulnerable parts of the body.

Are the Department of Health and PHE doing too little? “My main issue with the PHE’s stance is that it’s contradictory,” says Mallery-Blythe.

“They’ve issued a caution saying children under 16 shouldn’t be using mobile phones except for essential calls, but they’ve been quite

happy to support the one-to-one iPad scheme, though an iPad can have an equivalent or higher SAR (the rate at which energy is absorbed by the human body when exposed to a radio frequency) than a phone.”



Associate Professor Olle Johansson, a neuroscientist at the Karolinska Institute in Sweden, compares putting an iPhone near a baby's head to “putting it next to several electric train engines”, pointing out that working with train engines is Sweden's highest occupational exposure allowance.

Johansson has been researching the biological effects of radiofrequency (RF) wireless radiation for more than 30 years, but says it has become “extremely hard to get funding” in this area. “Given the importance of the subject I'd say that's more than enigmatic.”

He predicts a “paradigm shift” in attitudes towards EMF. We are currently living in an environment estimated to contain more than 10

billion times more RF radiation than it did in the Sixties. “If this environment is safe we’re talking about in the order of 15,000 to 25,000 papers – in peer-reviewed scientific journals – all being wrong. That has never happened before.”

“We just want to see some precautionary action put in place, and we’re not seeing it.”

Wi-Fi at home: Dr Erica Mallery-Blythe’s advice

Try to keep your mobile switched off and don’t use it unless you need to. Keep it in flight mode when it is on and never carry your mobile close to your body, even on standby.

Don’t use Wi-Fi for internet. Instead use an Ethernet cable and buy a router with no wireless capacity or disable it. Disable Wi-Fi on your computer or tablet by disabling the wireless card via the control panel or putting it into flight mode.

Replace cordless landlines with corded ones. Most cordless telephones give off radiation whether they’re in use or not.

Background

In February the French government banned Wi-Fi in nursery schools and restricted use in primary schools. The German government has recommended that the use of Wi-Fi in the workplace or home should be avoided where possible. LA has reduced student exposure to Wi-Fi radiation to 10,000 times below US government standard.

In 2000, a report commissioned by the Government concluded that no school should fall within 100 metres of a mobile phone mast; in 2007 a BBC Panorama programme found that the readings next to a classroom laptop showed radiation at double the level only 100 metres from a mobile phone mast.

A five-year-old absorbs up to 60 per cent more radiation than an adult due largely to their thinner skulls and the high water content of a young body. In Western countries brain tumours have overtaken leukaemia as the most common cause of cancer in children.

A 2008 study found a fivefold increase in the risk of glioma (a form of brain cancer now recognised by the World Health Organisation as being linked to mobile phone usage) for those starting mobile phone use under 20 years of age, indicating that the age group at first use is

highly significant.

Schools and parents can find out more through ssita.org.uk

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