

EHS proved again! Time for WHO and ICNIRP to accept biological limits

For people with EHS the year 2016 has started positively. We now have a set of up-to-date scientific studies on the condition, showing objective markers for diagnosis and how people with EHS should be treated.

Another study shows that physical EHS is different from Electrophobia, or fear of EM exposure, the condition which some psychiatrists in ICNIRP and the WHO have confused with EHS recently. Now the ICNIRP and the WHO need to adopt the necessary biological safety limits, such as those of Building Biology and EUROPAEM. See inside for applying the sensitivity limit of 0.1 uW/m² in schools, public and work places.

WHO 2005 Backgrounder 296, AGNIR 2012 Report and PHE 2013 advice outdated

The important set of EHS studies in 'Reviews on Environmental Health' of 2015 means that the WHO Backgrounder 296 of 2005 is now outdated, and other advice based on it. It is now established that EM exposure can cause EHS, that EHS is a physical condition with 'consistent' objective markers and outcomes, and that real EHS is not the same as the psychological condition of Electrophobia.

Berkeley law on mobile phone warnings

Berkeley in the USA has led the world on several environmental health issues. It has now legislated for mandatory warnings for mobile phones at the point of sale.



EHS is not a 'Nocebo' effect

An investigation of individuals who have become electrosensitive has convincingly disproved the claim for a 'nocebo' effect or Electrophobia. Most of those interviewed had never heard of the dangers of EM exposure before they were sensitised to radiation from WiFi, mobile phones and masts. (Dieudonne M, Bioelectromagnetics, 2015)

Scientific studies prove EHS is physical, not psychological

A special edition of 'Reviews on Environmental Health' (December 2015, vol.30, issue 4) covers 'Idiopathic environmental intolerance', including Electromagnetic Hypersensitivity (EHS) and Multiple Chemical Sensitivity (MCS). The studies include:

- objective diagnostic markers for EHS,
- the increasing challenge of EHS to the medical profession,
- the history of the microwave syndrome or EHS,
- mercury release from dental amalgam restorations after EM exposure,
- EHS as a functional impairment due to an inaccessible environment,
- different age sensitivities for EHS,
- and the EUROPAEM EMF Guideline 2015, to be revised for 2016, with a limit for sensitive people of 0.1 uW/m².

Contents

UK News	2
NHS using 2B carcinogen	5
Readers' Comments	5
Jenny Fry	7
Book reviews	10
Electrosensitivity scientific evidence	12
Electrosensitivity symptoms	13
Electrosensitivity 0.1 uW/m ² safety limit	14
Electrosensitivity recognition	16
Electrosensitivity protection and shielding	17
France: Doctors' appeal on EHS	19
WiFi and mobile phone dangers	21
WiFi dangers on Australian TV	26
USA: children's mobile warning removed	28
Electrosensitivity stories	30

ES-UK NEWS

ES-UK: 'gradual progress' and "a vast amount to be done"

The editor writes:

The year 2015 saw further gradual progress for ES-UK. There is still a vast amount to be done, but we can feel pleased if, through the activities of similar groups and ours, including the website, Newsletters, helpline, letter-writing, meetings, speakers and campaigns, the needs of people with electrosensitivity are becoming better known in the UK, and even around the world. It is always a pleasure to realise that our efforts can help sufferers who feel isolated wherever they happen to be, including some outside the UK. In addition to running or helping with these core activities, the trustees and other tireless voluntary workers also keep in contact with government departments and officials, many of whom still lack up-to-date knowledge about electrosensitivity and its disabling effects. We are aware of growing numbers of adults losing jobs because employers lack appropriate knowledge, and of increasing numbers of children who find that WiFi and mobile phones makes their social lives a misery and school education impossible. Most readers will have seen about the very tragic case of Jenny Fry; more details are included later in this Newsletter.

Thank you to all those who work so hard for the charity. Working together we can more effectively pursue our two aims of helping people with electrosensitivity, and making the condition better known. Particular thanks go to those who answer the helpline. This is a vital service for many people who are often bewildered by what has happened to them when they finally realise that they've been sensitised to WiFi, cordless or mobile phones, phone masts or power lines, or others of many common devices. Or

they may just need advice on some aspect of trying to survive when the world around seems too hostile and unsympathetic. Thank you also to those who plan and run meetings. These can be purely social gatherings or can sometimes involve speakers. Both are much appreciated.

Thank you also to our generous donors. These have allowed us to become more active in circulating information on electrosensitivity and the needs of people affected by it. Last Autumn leaflets were sent via a distribution system to all National Health Service surgeries and health centres in the UK. We are now initiating a campaign involving some local radio stations, which we hope will come on air later in the Spring. If you have ideas or time to help with such campaigns, or would like to run a meeting or initiate contact groups, please get in touch.

This Newsletter, like other recent ones, includes several encouraging reports showing more general acceptance of the reality of the EHS condition by growing numbers of people, including doctors and psychologists. The minority clique of fringe pro-wireless and industry activists still dominates the WHO and ICNIRP, and they continue with their vocal scepticism and one-sided denials (see about the USA's CDC removal of children's warnings, and the ICNIRP outbursts against an excellent Australian WiFi broadcast). Nevertheless, the rising tide of scientific studies and statements by leading medical scientists suggest that the majority viewpoint is beginning to be heard at last. And this is despite the enormous financial pressures of advertising and taxation on newspapers, TV, and governments. If Berkeley can pass a law insisting on

prominent warnings on mobile phones, American courts can start accepting the validity of evidence for non-thermal harm, France and Taiwan can start to ban WiFi, and many countries can start to accept EHS as real with regard to disability payments, then perhaps we may begin to see some movement in the UK, a country which in the past has often prided itself in taking a lead on evidence-based public health issues.

In addition, the widespread concern over the inexorable rise in cancer, neurological illnesses and environmental sensitivities, along with signs of reversals of the constantly rising life expectancy in many western countries, has made people wonder what factors in modern life may be blighting our technological progress. As someone said to me recently: "Do you think my increasing aches, pains and feeling ill may not be just growing older, but could be related to increasing exposure to WiFi and mobile phones?"

ES-UK: products and events

As a charity ES-UK does not intentionally promote any particular commercial products. The names and contact details of some suppliers of products and services relating to avoidance and shielding are listed in the independent "ES Directory" which can be accessed via our website. The Newsletters may include news items referring to products or other charities or commercial events, but this is for information and does not indicate any recommendation. Anyone is welcome to send in news items of events, even if they are run commercially. At present the charity's Newsletter does not take advertising, but this does not mean that in the future it may not do so, like many other charities. As always, we advise our readers to ask suppliers detailed

questions before purchase. Shielding can be particularly complex, and we suggest a competent professional survey if necessary with both ELF and RF measurements on location, and full support from suppliers. Some measurement meters on the retail market do not go low enough to pick up exposures which can affect sensitive people. Any issues should be taken up with the suppliers directly. The charity cannot intervene if customers are dissatisfied since it is not a party to the contract and does not know the relevant details. The charity would, however, welcome suppliers in this area forming a self-governing group which sets and upholds the best possible trading standards.



Petition to UK government on EHS and MCS

A petition to the government to support people with EHS and MCS started on 12 February and will be open to 12 August 2016. <https://petition.parliament.uk/petitions/121419>

“Support individuals with Electrosensitivity and Multiple Chemical Sensitivity: We call on the UK Government, the NHS, and other official organisations/agencies, to recognise and support individuals with EM Hypersensitivity (EHS) and Multiple Chemical Sensitivity (MCS), and to implement the recommendations outlined in the following documents as quickly as possible [PACE Resolution 1815; International EMF Scientist Appeal; 2015 Brussels International Scientific Declaration on EM Hypersensitivity and Multiple Chemical Sensitivity; Professor Dominique Belpomme’s 2015 paper].”

Petition in France to recognise

EHS urgently as a disability

Residents of the UK can sign the following petition: “Reconnaitre en urgence l’électro hypersensibilité comme handicap” <https://www.change.org/p/minist%C3%A8re-de-la-sant%C3%A9-reconnaitre-en-urgence-l-%C3%A9lectro-hypersensibilit%C3%A9-comme-handicap#petition-letter>

Kinharvie House, Dumfriesshire

This is a non-profit project to develop a care, counselling and therapy centre for electrosensitive persons. It is separate from ES-UK, but Brian Stein, an ES-UK trustee, has been helping to lead its development. As a first step there is guest house accommodation in part of the house for stays of between one and three weeks. For details contact: Kinharvie House, New Abbey, Dumfriesshire, DG2 8DZ, tel and fax: 01387 850 306.

Wireless health awareness meeting: “UK children at risk”

More than 80 people descended on Compton Dundon on Saturday 26 September for an event on “the inconvenient reality” of wireless technology. The village hall welcomed people from as far afield as Scotland, Yorkshire and London to hear a series of guest speakers on whether wireless technology can affect our health and fertility. The event was organised by Yeovil resident Peter Gane, a supporter of the charity Electro-Sensitivity UK, and Jo Stallard from the fertility organisation Foresight Preconception. Those attending included doctors and complimentary therapists who were keen to learn about the medical impact of new and emerging technologies. Among the speakers were retired military “microwave warfare” expert Barrie Trower, Somerset GP Dr Andrew Tresidder, and retired food manufacturing CEO Brian Stein CBE, who is himself electro-sensitive. Mr Gane said: “All the speakers agreed that, whilst countries around the world are beginning to react positively to

this knowledge and latest scientific breakthroughs, sadly the UK authorities appear to be in denial, particularly placing our children and future generations at risk of harm.” France, for example, has passed legislation banning wifi in nurseries, whilst Italy and Israel are now actively encouraging a reduction in electro-smog. “The UK needs to wake up and be at the forefront of the development of safer systems and devices. After all, where there is a will, there is a way.” A DVD is available from Peter Gane (01935 423002). (“Dozens descend on Compton Dundon for wireless health awareness event” Western Gazette, 29 September 2015)

Letter to Anne Longfield, Children’s Commissioner for England

On 28 September 2015 Peter Limbrick sent a comprehensive letter to Anne Longfield, the Children’s Commissioner for England, about “Your important role in saving children from radiation damage as they use iPads, laptops, tablets, phones and other gadgets.” It points out powerfully how so far the UK government has failed to safeguard the health of children exposed at school to the 2B cancer and neurological agent of WiFi radiation.

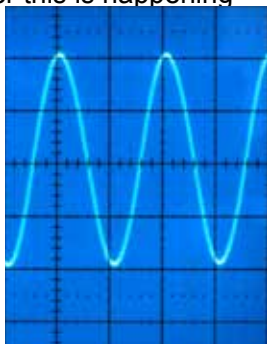
England’s Children’s Commissioner states: “We work with and on behalf of all children in England to dramatically improve their lives. Every child has the right to the best possible physical and mental health. Every child under the age of 18 has all of the rights in the United Nations Convention on the Rights of the Child (UNCRC, of 1989). Our work on health has particular focus and relevance to the following Articles of the UNCRC: 24 [health], 25 [access to education], 36 [exploitation], 12 [views of the child], 19 [physical harm], 23 [disability], 37 [torture] and 39 [recovery].” (TAC Interconnections: Team Around the Child, 28 September 2015)

“Burns on my face, blurred

vision and pains” - all in a psychiatrist’s mind?

Dr Max Pemberton, a ‘NHS psychiatrist’, (“Does wifi really fry your brain?” Daily Mail, 5 September 2015) claimed: “When sufferers are told they are being exposed to electromagnetic fields, they do, indeed, experience the symptoms. But when the study is ‘blinded’ — when neither the researcher nor the participant knows whether this is happening — they can’t tell.

This proves they are not actually sensitive at all.” This supposed ‘proof’ of no sensitivity was



challenged

in a letter by June Cain (Daily Mail, 11 September 2015): “Dr Max Pemberton should do more research before labelling EHS a mental illness. The blind tests he refers to were undertaken several years ago and were flawed. Other research done at the time was financed by the mobile phone industry. I’m EHS and find his theory on the ‘nocebo’ effect quite insulting. Every bad zap of radiation I receive burns the top layer of skin on my face, causes blurred vision and gives me pains throughout my body. I was burned by an O2 mast, which affected my neck, face and arms. My left arm took the brunt of it, swelling with fluid. This can’t have been a ‘nocebo’ effect because I didn’t know the thin pole partially hidden by a building was a mobile mast. When walking around, the invisible pollution on the High Street has twice caused the blood vessels in my eyes to burst. I feel the emissions from phone users who are near me. EHS is a worldwide health problem. Are the millions of Americans and Europeans who suffer EHS like me all deluded? In this country, we represent 3-4 per cent of the population.”



“Highly emotional upsets, a miserable existence; high time it is recognised by a lot more people”

Mrs F Ledger (“Powerless to help”, letter, Daily Mail, 24 September 2015) wrote: “My best friend’s grand-daughter has suffered from EHS for two years, making life very difficult for both her and her mother. Everyone seems to want to belittle the condition and pretend it simply does not exist — but it does. My friend cannot use a television, computer, washing machine, electric cooker or microwave when her daughter is at home. This causes numerous arguments and highly emotional upsets. My friend’s grand-daughter has applied to be rehomed but to no avail, which leads to a miserable existence for both of them. It is high time this condition was recognised by a lot more people and something substantial done to help the poor sufferers of EHS. It is a very serious condition and the problems it causes need to be addressed as soon as possible.”

Thames Water smart meter report: “scientifically and medically one-sided”

Editor’s comments on “Review of the Potential Health Effects of Smart Water Meter Systems Used in the Thames Water Region” (WRC of Swindon, November 2015). This review concludes (p.40): “The power density of RF emitted by smart meters is lower or similar to that emitted by other common household products. When the very short signal durations of smart meters are taken into account, estimated levels of exposure to RF from smart meters are lower still.” This avoids saying that “smart” meters are safe, since obviously they are not, otherwise

thousands of people around the world would not have been made ill or sensitised by them. Instead the report confirms that Thames Water smart meters are as dangerous as radiation from WiFi, TV and radio and mobile phones, all categorised as carcinogenic to humans class 2B by the World Health Authority and, now that RF is confirmed as tumour promoter, worthy of a 2A classification according to experts. The report keeps to the minority sceptic and pro-wireless industry viewpoint. It dismisses (p.35) as a “variant” the key majority viewpoint scientific assessment, the international Bioinitiative reports of 2007 and 2012, which use weight of evidence to conclude that such high levels of radiation as used by “smart” wireless meters are established as harmful. Many involved scientists, as evidenced by the EMF Scientist Appeal of 2015, now agree with the European Parliament and Council of Europe that the heating-only limits still used by ICNIRP and this report are ‘obsolete’. For Thames Water to accept such a scientifically and medically one-sided report could adversely affect the health of many of its customers. The report should have advised Thames Water to adopt international biological safety levels, such as for sensitive people at 0.1 microW/m². Customers of Thames Water deserve a much fairer and less one-sided understanding of the current medical science on conditions like EHS than is evident in this report.



NHS PROMOTING 2B CANCER RADIATION IN ALL HOSPITALS

2B cancer radiation: “turn the whole NHS estate into a massive free Wi-Fi zone”

“Every hospital and GP surgery in England is likely to start providing free Wi-Fi in a move by the NHS to keep patients entertained and help doctors and nurses use much more technology in their work. The government’s National Information Board (NIB) has commissioned a feasibility study into the viability of turning the whole NHS estate in the country into a massive free Wi-Fi zone. The Mount Hospital in Leeds is about to start offering not only free Wi-Fi to older patients with dementia and mental health problems in four of its wards, but also to provide tablet computers for them and their carers to use to help pass the time. Tim Kelsey, NHS England’s national director for patients and information, who chairs the NIB, is keen on the idea. The pan-Whitehall body, hosted by the Department for Health, sets the strategy for transformation. Kelsey added: “We have a huge opportunity here and a moral responsibility to look at how we can improve access to digital health services.”” (Denis Campbell: “Hospitals and GPs to start providing free Wi-Fi” The Guardian, 17 June 2015)

2B cancer radiation “in all NHS buildings”

“Free Wi-Fi is to be provided in all NHS buildings in a bid to improve medical treatment and patient experience, said Jeremy Hunt, the health secretary. Cash is being made available from a £1bn technology fund to improve a patchy service. The move was recommended in a report commissioned by the government and Martha Lane Fox, when she was the UK’s digital champion, on improving the use of online technology in the health service. No deadline has been set for it to be available throughout the NHS but the government expects it to be “digital and paperless” by 2020.” (Press Association: “Free Wi-Fi to be rolled out across the NHS” The Guardian, 21 December 2015)

NHS 2B cancer radiation “devices on the wrist” for ill patients

“Devices worn on the wrist like the ones that record your heart rate, calorie intake or distance run have a vital part to play in securing the NHS’s future, the service’s medical director says. Prof Sir Bruce Keogh believes that gadgets similar to fitness trackers, and others resembling games consoles will revolutionise the monitoring of patients’ health, especially those with a serious condition.” (Denis Campbell: “Prof Bruce Keogh: wearable technology plays a crucial part in NHS future” The Guardian, 17 January 2016)

READERS’ COMMENTS

Directory

A directory of hotels and accommodation with reduced or no radiation is available on: <http://hotels-ohne-wlan.com/en/>

Proof for other conditions with conscious symptoms?

How are drugs allowed to be marketed for something that no-one else can either feel or prove - i.e. headaches? Isn’t there an important connection here with electrosensitivity symptoms like headaches, regarding ‘proof’?

Guantanamo compensation – for EHS too?

If Guantanamo detainees are allowed compensation up to £1M for being restricted in movement and tortured against their will, what about people exposed to electromagnetic pollution who are tortured against their will and have their movement restricted?

Protect your whole body!

I felt severe stabbing pains around my heart when hundreds of people on an aircraft, which had been delayed for hours on a

runway, were suddenly all allowed to switch on and use their mobile phones. This was despite wearing a silver-mesh protective jacket covering my upper body from the waist to the neck. This suggests that electrosensitivity symptoms can be caused by radiation attacking any unprotected area of the body and then being transmitted to areas sensitive to electric effects like my heart.

Tractor wireless harm

In 2014 I felt “electrocuted” when in a transit line between a tractor’s wireless transmitter and the receiving-mast, in the field opposite to my house. Whilst the signals emitted cause me several health problems at all times, over the course of time since last year I have observed that the effects are very much worse (“thumps” to my head, & ‘interference’ to my eyes; I also become completely ‘zapped’ of energy and all my muscles become weak) when the tractors are working below (or near to) the powerlines which supply my property. I am also affected even when only one tractor is working, which therefore is presumably caused by the GPS system being used (below/nearby the powerlines). This has all been particularly evident during the present ‘Harvesting’ season.



Mobile in the next room: “like a heart attack”

I was sitting at work as usual when I suddenly felt very sharp stabbing pains around my heart, unlike anything I’ve experienced before. I first thought that this could be the start of a heart attack, but I otherwise felt fine. I then wondered whether someone in an adjoining room was using a mobile phone and so I checked on my meter. The area is usually almost free of radiation, and has posters asking people to switch off their mobiles, but the meter recorded sudden spikes up to 0.21 V/m typical of a mobile call, which coincided with, or just followed, my sudden searing pains. These pains then all suddenly stopped and the meter similarly showed that the person nearby had stopped making a call on their mobile.

Taxpayers liable for neurological and cancer effects, as in “rats and monkeys”?

All the UK’s 650 MPs were given an iPad Air 2 with WiFi and Cellular. This has a body SAR of 1.18 W/kg (US) and 0.99 W/kg (EU). In contrast the Seletun non-thermal long-term limit is 0.003 W/kg. Why did MPs get these iPads against the established non-thermal safety limits? Why do they accept SAR heating limits from 1982 based on the disruption of food-motivated behaviour in rats and monkeys? If tax-payers’ money was used to buy the iPads, are taxpayers liable for the neurological and cancer effects which MPs could suffer?



Virgin trains’ awesome radiation: over 8,000 times too high

On a recent Virgin train my meter showed 800 uW/m² to 7,000 uW/m². The biological limit (Building Biology and EUROPAEM) is 0.1 uW/m² for sensitive people. Thankfully it was a relatively short journey.

Trees doomed by phone masts and WiFi?

In the last few years many species of trees have begun to succumb to potentially fatal diseases, perhaps the result of weakened immune systems from ambient radiation, as predicted by scientists. What would life be like without olive, juniper, ash, oak and horse chestnut trees? It’s not just the humans and bees whose immune systems are weakened. And it’s not just the fault of imports, since 95% of olives are around the Mediterranean and could be wiped out.

Global and human warming?

If the UK government, following ICNIRP, are worried about mobile phone and WiFi radiation heating a human by 1 degree, what about global warming, where the increase is to be limited to 2 degrees? Some scientists think that man-made radio radiation already accounts for 1 to 2 degrees of global warming.

The Times: hidden radiation?

A reader notes that The Times of London seems to censor reports on the established dangers of WiFi and mobile radiation. Unlike most other UK papers, it did not cover the very sad story from the inquest on Jenny Fry on 30 November, but a few days later reported a story from 2009: “A stretch of road in Willmering, Bavaria, Germany, where there was a “spate of deadly crashes in ten months with no obvious pattern”, has been free of accidents for six years since 2009 after the town council paid Helmut Gebert, a local water diviner, €1,800, after he offered to solve the problem. Mr Gerbert, 47, explained: “In this area several water channels run, and in conjunction with mobile phone towers the radiation was increased. So I have neutralised the rays.” He hung wooden boxes, containing a circular white dish with a metal pole projecting from the centre, from three trees next to the road, saying that left turn of the water radiation conflicted with the rightward motion of out bodies’ inner cycles, temporarily distracting tired drivers.” (David Charter: “Bavarian road plagued by fatal accidents ‘cured’ by mystic” The Times, 5 December 2015). [In the UK it has been suggested that some unexplained fatal accidents seem to have occurred where Tetra lines between Tetra masts cross roads – Ed.]

Deepest sympathy

The ES-UK community wishes to express its deepest sympathy to the parents, family and friends of the late Jenny Fry. The loss of anyone is distressing, but especially in these very tragic circumstances.

Reactions

Many people were shocked and horrified that a school could allegedly require a pupil who was allergic to an environmental toxin like WiFi to be constantly exposed to that toxin and then punish her for lapses in concentration and health when she was exposed. The ultimate source of the problem may lie in the advice given to the school by the Department of Health and its agency, Public Health England. Medical experts have noted that these lack a thorough and up-to-date knowledge of the condition of EHS and rely on outdated and pro-wireless industry views and those of ICNIRP and the AGNIR report of 2012, which still deny 'consistent' or 'overall' evidence for health effects like EHS. Such minority viewpoints seem to lack the input of the medical doctors who regularly diagnose and treat people with EHS, although this could be easily rectified.

The way forward

Jenny's mother, Debra Fry, has been exemplary in seeking to bring something positive out of such a devastating tragedy. She has been willing to be interviewed on radio, TV and in the press, expressing herself in a calm and thoughtful way. The tragic story went around the world and challenged many who had so far not examined the evidence on EHS and the dangers of WiFi.

Three themes come from many of these reports.

(1) It is the duty of schools to safeguard children with sensitivities to toxins like electromagnetic fields and radiation.

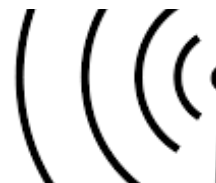
(2) It is the duty of government to protect and warn its citizens using up-to-date information based on best medical practice from doctors who diagnose and treat children and adults with EHS. NRPB/HPA/PHE with the Department of Health have been informed about real EHS for over 10 years.

(3) No medical expert can say that WiFi and similar radiation has no effect on humans, since many thousands of studies worldwide have shown that it does and many thousands of injured people are living testimony to its harmful effects.

"WiFi should be restricted in schools": death of Jenny Fry

The parents of a 15-year-old schoolgirl say her school could have done more to listen to her cries for help. Jenny Fry, a pupil at Chipping Norton School, was found by her mother, Debra Fry, hanging from a tree at Brooke Woods at 4.20pm on Thursday 11 June 2015. The inquest at Oxfordshire Coroners' Court on 19 November heard how Jenny, who was described as intelligent, non-judgemental and organised, had not been seen since leaving home to go to school that morning of, although she did not get on her bus to school. A police statement said at 9.36am and 10.05am she sent a text to a friend about her intentions and stating where she was. Her friend did not have her phone with her that day.

Mrs Fry and Jenny's father, Charles Newman, say they will continue their campaign to have the dangers of WiFi in schools addressed. During the inquest, Mrs Fry said Jenny had first started showing symptoms of electro-hypersensitivity (EHS) around November 2012, including tiredness, nausea, headaches and bladder problems. It was the time Jenny's parents briefly had WiFi connected to their home and, said Mrs Fry, that Chipping Norton School had WiFi installed. "Jenny was getting ill and so was I. I did some research and found how dangerous WiFi could be so I had it taken out of the house. Both Jenny and I were fine at home but Jenny continued to be ill at school in certain areas. She was receiving lots of detentions, not for being disruptive in class or misbehaving, but often because she used to take herself out of the classroom to find another where she was able to work. She took her schoolwork seriously. "I took lots of information into school to show the headteacher, Simon Duffy, but he said there was equally the same information available claiming WiFi was safe. I also had a heated exchange with teachers telling them Jenny was allergic to WiFi and that it made no sense making her take detentions in rooms that were making her ill. The least they could do was allow her to take them in rooms where she felt able to concentrate, but they wouldn't listen," she said. "I intend to carry on my campaign to highlight the dangers of WiFi. I am not against a bit of technology but I do feel schools should be aware that some children are going to be sensitive to it and reduce its use."



Mrs Fry said a lot of countries are taking note of its dangers now. France and Germany have acted to remove WiFi in nursery schools and reduce its use elsewhere. A campaign to offset and reduce radiation exposure in schools has been endorsed by many professionals including Professor Jacqueline McGlade, executive director of the European Environment Agency and Dr Erica Mallery-Blythe, medical advisor for Electrosensitivity UK.

"I fully believe Jenny did not intend to take her own life. I think she was frustrated with school. She had not made any suggestions she was thinking of suicide and I believe it was a cry for help." Oxfordshire coroner Darren Salter said he was unable to rule out it was a possible cry for help because of the texts she sent to a friend. He said there was not enough proof to suggest Jenny intended to take her own life and recorded a narrative verdict.

She said the problem she is facing is getting UK GPs to recognise EHS. She is also directing people to websites dedicated to radiation sensitivity. They include ssita.org.uk (Safe Schools Information Technology Alliance) where there is a section in 'videos' by Dr Mallery-Blythe. There is also wiredchild.org/home.html and wifiinschools.org.uk. (Vivien Mason, "Parents of schoolgirl Jenny Fry are campaigning to have WiFi restricted in schools following her death" *Cotswold Journal*, 25 November 2015)

News coverage of this tragic event

The following were among many news reports. Most leading UK newspapers seem to have included the news apart, apparently, from *The Times* and *The Guardian*.

Daily Mail: "Schoolgirl, 15, found hanged after 'developing an allergic reaction to the WiFi at her school'" 30 Nov.

Irish Daily Star: "Body of teen girl with "rare allergic reaction to WiFi" found hanging from tree" 30 Nov.

Mirror: "Schoolgirl found hanging from tree after suffering from 'rare allergic reaction to WiFi'" 30 Nov.

New York Daily News: "Parents of British teenager who committed suicide say 'Wi-Fi allergy' is to blame in death" 30 Nov.

New York Post: "Teen who was allergic to WiFi commits suicide: mom" 30 Nov.

Sun: "Schoolgirl killed herself after 'WiFi allergy made her life misery'" 30. Nov.

Daily Telegraph: "Mother claims wifi allergy killed her daughter and accuses school of failing to safeguard children" 1 Dec.

Evening Standard: "Schoolgirl 'killed herself

because of sensitivity to wi-fi', mother claims" 1 Dec. Independent: "Schoolgirl Jenny Fry found hanged after 'suffering from allergy to WiFi'" 1 Dec.

News Corp Australia: "Schoolgirl took her own life after 'Wi-Fi allergy made her life miserable'" 1 Dec.

RT news: "Schoolgirl found hanged after 'allergic reaction to school's WiFi'" 1 Dec.

SFGate: "Woman says Wi-Fi allergy killed her daughter" 1 Dec.

msn News: "Wi-Fi Allergy Compelled A 15-year Old To Commit Suicide?"

Belfast Telegraph: "Mother claims daughter's 'allergy to Wi-Fi' led to her death, calls for it to be removed from schools" 2 Dec. 2015.

BBC South: interview with Debbie Fry: "Mother calls for school wi-fi ban" 3 Dec.

ITV news: "School wi-fi led to death of my daughter, says mother" 4 Dec.

BBC Radio Oxford: 17 minutes interview with Debbie Fry, 9 Dec. 2015.

Boil The Frog Radio: "Jenny Fry Teen Suicide Due to WiFi" 7 Feb. 2016.

Comments in news reports

Dr Sun: "some people are highly sensitive to magnetic fields" (*New York Daily News*) "Neurologist

Dr Dexter Sun of Lexington Neurology Associates and a professor of neurology at Cornell University

Medical College, isn't sure, either, but he said he does have patients who complain of the ailments ascribed to EHS. "The scientific community is still debating: is it real or not real," Sun said.

"We should have more investigation and serious consideration for researching this field and we don't know why some people are sensitive to it."

He acknowledges that some people are highly sensitive to magnetic fields, and though previous studies of cell phones found that they were not an

inducement for brain tumors, Sun also raised the spectre that no one knows the long-term effects of any of this technology. "The issue is so hard to prove," Sun said. "People can have a lot of stress

and depression. There has to be some evidence to prove it is Wi-Fi induced, otherwise it is very scary. It needs much more research. Maybe that girl was hypersensitive to a magnetic field. It is hard to prove

and so far we don't have the scientific data to prove it."

John Harris, a Yale University physics professor, also did not discredit the syndrome, and notes how many of the symptoms are similar to stress. The sensitivity could be to a range of electromagnetic



waves. Some countries are more open to the syndrome as a quantifiable medical issue. France, for example, recently awarded a woman \$900 a month in disability because of her ailments with electromagnetic hypersensitivity.”

“If someone had a peanut allergy you wouldn’t make them work surrounded by peanuts”

(Daily Telegraph) Debra Fry: “Jenny left letters for us where she said she couldn’t cope with her allergies from wifi anymore. She left them for us in case things went too far but I don’t believe she wanted to die. She wanted to do well at school and go to university but she knew Wi-Fi was having a bad effect on her studies. It got to the stage where she would hide herself away in unused classrooms in the school to work just so she could escape the Wi-Fi. In the classroom she had a seating plan but if she was near where the router was she would suffer headaches and feel very hot and bothered. As soon as Jenny walked away from a router she felt instantly better so she was almost hunting out areas of the school which weren’t covered by Wi-Fi just to do her work. I remember saying to the school ‘if someone had a peanut allergy you wouldn’t make them work surrounded by peanuts’. Just because Wi-Fi is new and all around us doesn’t mean it is safe. Wi-Fi and children do not mix. Much more research needs to be done into this because I believe that Wi-Fi killed my daughter.”

“Too much money in WiFi to take the problem seriously”

(Comment, Daily Mail, 30 November 2015, by ‘JohnCalvin’ of Chester): “In 2003 I installed a WiFi router in my home. Within a month my wife (a doctor) developed a serious arrhythmia and I began to experience difficulty in concentration. We removed the WiFi and hardwired the system and the symptoms gradually disappeared. However I taught in a school which had a WiFi transmitter in the classroom immediately above my own. At the time I was assured it had been turned off at my request, but 6 weeks into term I developed problems concentrating and memory began to suffer. The router was still working. Neither I nor my headmaster knew this. I can still remember the shock on his face when I told him it was on. For the first time he realised that the problems it was causing me were not a product of my imagination. The school were sympathetic and reduced the WiFi footprint. There is too much money invested in WiFi for the authorities to take the problem seriously. Sadly this child’s death will not be the last and there will be many who suffer in silence.”



Confusion between Electrosensitivity and Electrophobia

BBC Radio Scotland, the Kaye Adams Programme, on 2 December 2015, included an excellent 10 minute presentation by Dr Erica Mallery-Blythe, medical adviser to ES-UK, on the established dangers of EM exposure and the established symptoms and illnesses caused by them, including EHS and cancers like glioma. She explained how leading experts now say that new evidence means that EM exposure should now be classified as a class 1 certain carcinogen.

Her sound medical presentation was described as “a bit sad really” by the psychiatrist Prof. Sir Simon Wessely. His critics claim he has still not apologised for his psychological explanation for illness from the Camelford water poisoning, even though the government apologised in 2013. He ignored all the established medical science since the 1930s on real electrosensitivity. Instead he seemed to be talking about a different condition, electrophobia, which he said depended on conditioning by people talking about electrosensitivity. He said he had no idea why the French government banned WiFi and that the UK’s Department of Health has refused to fund further research. He claimed there was “no link” with glioma. He said the all-clear claims based on a “bigger picture” were “unbiased”, even though these seemed to coincide with the views of the pro-wireless minority group of sceptic scientists and activists. He seemed to be talking about electrophobia and not real electrosensitivity when saying: “There’s no way round those 50 studies except to say people get symptoms but the symptoms are not due to EM frequency.” This led him to say it was “easy to condition people into believing that things like this are making them ill and then they become ill.” The latter condition, of course, is not established real EM sensitivity, but fear or electrophobia. Finally he admitted that if there was a risk, presumably of real sensitivity rather than his electrophobia, “we should ban these things”. [It would be better if the BBC had speakers discussing the same medical condition, not two distinct conditions. It was no surprise that by the end the presenter seemed confused, doubtless like many listeners – Ed.]

Powerwatch: rising brain tumour rate - “Wessely was wrong”

“Based on UK ONS data on all ICD-10 C71 malignant primary brain tumours the Age Standardised Incidence Rate (to the 2013 European Standard Population) rose from 7.97 cases per 100,000 people in 1995, to 8.65 per 100k in 2013. This is an Average Annual Percentage Rise (AAPC) of 0.32% (95% CI 0.13 0.52) with actual $p < 0.005$ (i.e. very significant, though not a large rise). So Wessely was wrong. There are lots more annual cases (rising from 3411 to 4282 cases, mainly due to the aging population) and even the overall age standardised incidence rate shows a significant rise. There is also a rise in ICD-10 D43.0 and D43.2 categories (from 319 to 450 cases) which have no biological / histological information recorded on file. There is no sign of any decrease in brain tumours. Wessely was wrong.”



BOOK REVIEWS

Benjamin Nowland: “Playing God – Biological and Spiritual Effects of EM Radiation – A Journey of Discovery”

(ISBN: 978-1925341249, 2015)

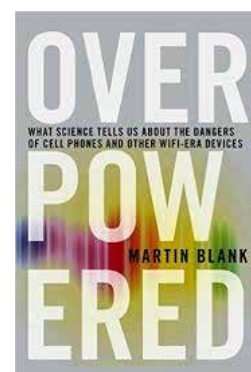
Dr Andrew Tressider’s review: This excellent short book describes the author’s journey with Electromagnetic Smog in Sydney, his realization that he had to take responsibility, and his journey forwards. He delineates his human needs that were impacted during the acute phase of what he terms as ‘radiation

pollution sickness’ as being his Health, Spiritual Connection and Freedom. This is a readable and inspiring book, that

helps us understand a framework of causation in a quantum universe where everything is a vibrational pattern. His framework of susceptibility is the 4 E’s: Empathic sensitivity, Exposure, Emotional stress, Environmental toxins. He notes a five-stage pattern of decline: denial, frustration, correlation, loss and depression. He looks at the body-mind as a coherent pattern of vibrational health. He looks at the biology and science involved in a breakdown in health, and restoration, including useful critiques of many methods he has tried, from shielding to earthing and others. All in all, this is an excellent educative overview of the problem, with some wise thoughts and concepts. Nutritional deficiencies are not covered in this edition, and need attention by another author.

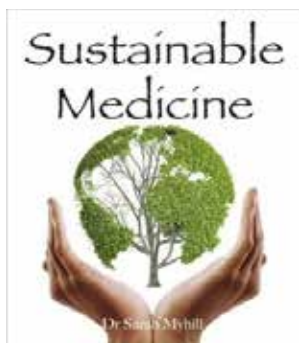
Dr Martin Blank: “Overpowered: The Dangers of Electromagnetic Radiation and what you can do about it” (ISBN-13: 978-1609805098, 2014)

Dr Andrew Tressider’s comment: A scientist’s overview of the harms and politics of Electromagnetic effects on biological organisms, especially humans. “Houston, we have a problem....” Just to note that this excellent book, published in 2014, is now available in paperback.



Dr Sarah Myhill: “Sustainable Medicine” (ISBN 97817810329)

Lorna’s review: Up to the present time our health services and medical training were designed largely to deal with acute conditions, and because they did it well we assumed that they could cope with the present epidemic of chronic disease. Sadly this has proved not to be the case.



On the whole the orthodox strategies of operations and pharmaceutical drugs often fail to produce the desired results. Dr Sarah Myhill, in her new book, tackles the problem head on by declaring that suppressing the symptoms of chronic illness can be even more dangerous than smoking. She claims that chronic metabolic disease is caused by a combination of our own habits, diet, drink, smoking and drug misuse, and toxic pollution of all kinds generated by our western life style, and that it can be cured by making changes which enable the body to cure itself.

Dr Myhill’s chief interests are CFS/ME and pesticide poisoning, so you may wonder why I should recommend this book to sufferers from EM radiation, but it seems that the body has only a limited number of responses to any assault from external toxins, and very distressing they are. Treating each symptom individually does not restore health and persistent sufferers are sometimes referred to psychiatrists who might suggest to the patient that their illness is “all in the mind” without inquiring into the causes of their problems. This can induce acute mental distress in patients, which in turn supports the idea that they are indeed insane. Professor

Olle Johansson has pointed out that it is most unlikely that a significant proportion of the population should have become insane since the beginning of the 21st century, coinciding with the spread of universal wireless communications. Yet there is a grain of truth in that diagnosis, although it is not so much our brains as our immune system which responds in panic to the assaults of electro-pollution and poisons in our western environment.

Dr Myhill explains clearly the mechanisms with which the body tries to defend itself and the often unwanted symptoms which they cause. The remedies she recommends are asking the right questions and then applying changes to diet and life style together with a great deal of common sense. The book is divided into topics from symptoms to treatment, with a final chapter devoted to case histories. There is a comprehensive index so as well as being a good read it is also useful for reference. There should be a copy in every home.

Thilde Jensen: “The Canaries” (ISBN: 978-1628473742)

“Today, man-made chemicals infiltrate our every breath, and electromagnetic emissions from wireless devices bombard us everywhere. After being struck down by the condition referred to as Environmental Illness, the photographer discovered a subculture of fellow sufferers leading remote, difficult lives. As a result, a growing number of people are developing a disabling disorder referred to as Environmental Illness or Multiple Chemical Sensitivity (MCS), in which the immune and central nervous systems experience extreme reactions when exposed to small amounts of chemicals such as perfume, cleaning products, car exhausts, printed matter, flame

retardants, construction materials or pesticides. Once the delicate chemical balance of life has been broken, there seems no end to how sensitive we can become. Some sufferers even react to electromagnetic fields, food, textiles and light, making life a near impossibility.

Environmental Illness leads to a long trail of loss. Marriages fall apart, careers crumble, friends and family pull away. The person suffering is often forced to leave home in search of chemical-free housing and clean air. Many end up living as refugees in remote areas out of tents, cars or retrofitted trailers, away from the dangers of a chemical and electrical world they can no longer inhabit. Others are prisoners of their homes. This became my story in 2003 when a sudden development of severe Environmental Illness cut short my career as a documentary photographer. The urban life I had previously navigated with ease was transformed into a toxic war zone. I had to flee my home in New York City as my immune system crashed, forcing me on a surreal journey through a hypersensitive dimension I never knew existed. The years that followed were a lesson in basic survival — camping in the woods, while wearing a respirator whenever I had to return to civilisation. To my surprise, an otherwise invisible subculture of people began to emerge who shared this isolated existence.” (Financial Times Magazine, 31 December 2015)



Ten studies on physical EHS

Reviews on Environmental Health, Volume 30, Issue 4 (Dec 2015): Special Issue: "Idiopathic environmental intolerance" (ed. Dr David Carpenter)

Carpenter DO, Belpomme D: "Idiopathic environmental intolerance", page 207;

Hedendahl L, Carlberg M, Hardell L: "Electromagnetic hypersensitivity – an increasing challenge to the medical profession", p.209;

Carpenter DO: "The microwave syndrome or electro-hypersensitivity: historical background", p.217;

Belpomme D, Campagnac C, Irigaray P: "Reliable disease biomarkers characterizing and identifying electrohypersensitivity and multiple chemical sensitivity as two etiopathogenic aspects of a unique pathological disorder", p.251;

Mortazavi G, Mortazavi SMJ: "Increased mercury release from dental amalgam restorations after exposure to electromagnetic fields as a potential hazard for hypersensitive people and pregnant women", p.287;

Sage C: "The implications of non-linear biological oscillations on human electrophysiology for electrohypersensitivity (EHS) and multiple chemical sensitivity (MCS)", p.293;

Ledoigt G, Sta C, Goujon E, Souguir D, El Ferjani E: "Synergistic health effects between chemical pollutants and electromagnetic fields", p.305;

Johansson O: "Electrohypersensitivity: a functional impairment due to an inaccessible environment", p.311;

Redmayne M, Johansson O: "Radiofrequency exposure in young and old: different sensitivities in light of age-relevant natural differences", p.323;

Belyaev I, Dean A, Eger H, Hubmann G, Jandrisovits R, Johansson O, Kern M, Kundi M, Lercher P, Mosgöller W, Moshhammer H, Müller K, Oberfeld G, Ohnsorge P, Pelzmann P, Scheingraber C, Thill R: "EUROPAEM EMF Guideline 2015 for the prevention, diagnosis and treatment of EMF-related health problems and illnesses", p.337 [to be re-issued as EUROPAEM EMF Guidelines 2016].



ELECTROSENSITIVITY SYMPTOMS

Typical workplace symptoms of an ES-sufferer

"I had the misfortune to work last week at a site fairly full with WiFi (2.4 and 5GHz, green to amber lights on the Acoustimeter Mk2). As it was after a longish period without exposure, the effects seemed more pronounced. Outward symptoms after 10 minutes of arriving in the environment included: 1. Feeling uncomfortable; 2. Fuzzy head; 3. Lethargy; 4. Nerve twinges; 5. Pressure in head; 6. Poor coordination; 7. Poor balance; 8. Inability to write smoothly (like dreams where you want to run but have leaden legs, but the same for the fingers); 9. Inability to get all my words out (after periods of not speaking, but if the brain gets engaged with a conversation, this eases this problem a bit); 10. Heart palpitations; 11. Difficulty concentrating; 12. Tunnel effect (tendency to feel self-centred and avoid the rest of the world); 13. Lack of enthusiasm; 14. Difficulty focussing; 15. Abnormal abdomen sensations. In summary, microwave sickness I guess. The most significant effect is the talking (9) and the brain fuzz (2). This repeated itself over four days within 10 mins of entry to the environment. Removal from the environment results in all of the above stopping. I can rule out lighting effects. I believe that others in the vicinity are also affected without realising it, as you can see from their withdrawn



and stressed demeanour. The presence of numerous mobile phones in the area, either in use or not, Wifi connected and pulsing to stations, adds to the problem significantly. If this is happening to me, I cannot imagine the seriousness of the effect on school children."

(ES-sufferer in the UK, February 2016)



"Symptoms of EHS: irritation, headache; mobiles cause damage at genetic level"

"Experts in India who have been studying such emerging problems (for example, the link between EHS and cellphone usage) say that with the introduction and expansion of wireless communication technologies, complaints related to mobile phones, base stations and gadgets have become more prominent. "The radio frequency EM radiation exposure levels have amplified manifold because of the extensive use of mobile phones and other devices," Neeraj Kumar Tiwari, Assistant Professor, Faculty of Computer Science and Engineering, SRM University, Lucknow, told IANS in an e-mail interview.

"Very common symptoms and sensations of EHS are irritation, headache, stammering, hearing loss, dizziness, ringing delusion, disrupted sleep, stress, fatigue and restlessness," he added. Further, at the genetic level, EM radiation from mobiles causes damage if their exposure time and level are high, said M. Y. Khan, Dean, School for Biosciences and Biotechnology, Babasaheb Bhimrao Ambedkar University (BBAU), Lucknow, who has

extensively dealt with the issue as a scientist." ("Can excessive use of Wi-Fi, gadgets, trigger headaches, allergies?" Zee News India, 12 September 2012)

"Almost everyone is affected by this radiation ... Like tobacco and asbestos, a Volkswagen moment will come when the whole world realises what a dangerous game the communications industry has been playing with our health"

"Even though as yet only a very small fraction of the world's

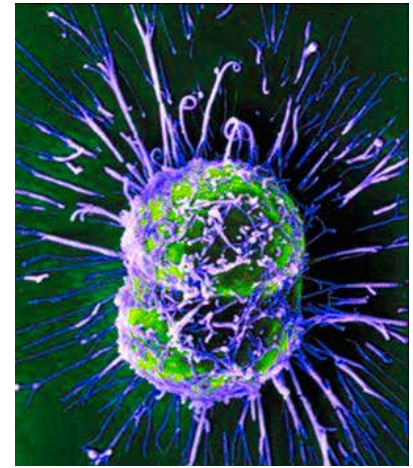
population are suffering seriously from the man-made EM radiation needed to create this connectivity, there are very



serious and credible concerns that they are only the tip of the iceberg – the canaries in the mines. In other words that, like smoking and asbestos, almost everyone is being affected by this radiation but that, as yet, the damage being done to their health is not being recognised. If you do not believe that these concerns are based in credible science, take a look at the Bioinitiative Report. Twenty-nine independent scientists and health experts from around the world have pulled together thousands of studies reporting on the 'adverse health effects of EM fields (powerlines, electrical wiring, appliances) and wireless technologies (cell and cordless phones, cell towers, WI-FI, wireless laptops, wireless routers, baby monitors, surveillance systems, wireless utility/'smart' meters') ... And finally, like diabetes, EM pollution (electrosmog) is a silent killer. Unless you are one of the very

few super sensitives you suffer very little in the way of 'symptoms' – until the damage has already been done. At that point you are pushed over the edge into sensitivity, your DNA is damaged, your fertility is reduced, your children are harmed – and you have cancer. Fashion designers will incorporate safety into the latest designs, celebrities will become concerned (I am amazed that Gwyneth Paltrow has not yet become electromagnetically

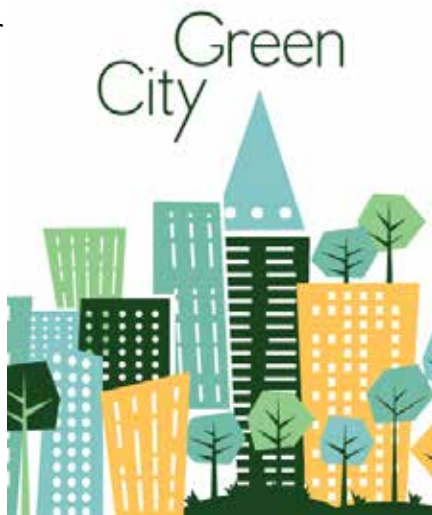
aware!) – so all of a sudden shielding and electro sensitivity will be all over Instagram and Twitter ... And finally, as happened with tobacco and asbestos, a Volkswagen moment will come when the whole world realises just what a dangerous game the communications industry has been playing with our health and will move to a safer and more acceptable way of delivering what we need." (Michelle Berriedale-Johnson, 20 December 2016)



ELECTROSENSITIVITY 0.1 $\mu\text{W}/\text{m}^2$ SAFETY LIMIT

Applying 0.1 $\mu\text{W}/\text{m}^2$ in schools, public places and business

School authorities, public places and employers need to apply the international safety limits for EHS people to fulfil their role in safeguarding sensitive children, visitors and employees, writes the editor. The current international safety limit for sensitive people is 0.1 microWatts per metre squared ($0.1 \mu\text{W}/\text{m}^2$), as in Building Biology 2008 and EUROPAEM 2015. From July 2016 the UK will, for the first time, have legal backing for EM heating limits, although these are much higher than biological limits for sensitive people. The heating limits are based on the European Directive of 2013 which specifically mentions non-thermal symptoms near MRI scanners, where high magnetic fields induce electric currents and thus electrosensitivity symptoms in workers moving nearby.



These notes cover the sensitivity limit of $0.1 \mu\text{W}/\text{m}^2$ as regards: (a) the suitability of $0.1 \mu\text{W}/\text{m}^2$, (b) practical implementation, and (c) regulatory implications.

A. The suitability of $0.1 \mu\text{W}/\text{m}^2$

1. Is $0.1 \mu\text{W}/\text{m}^2$ set too high?

The limit of $0.1 \mu\text{W}/\text{m}^2$ is intended to protect a sensitive person. Is it set too high? The now popular 5 GHz WiFi, triggered by smart phones, often seems to work below this level, and below $0.02 \text{ V}/\text{m}$, and some EHS people can feel adverse effects at these levels. If safety levels should be set 50-100 times lower than the LOEL or Lowest Observable Effect Level, perhaps it should be nearer to $0.0005 \mu\text{W}/\text{m}^2$. If the problem for 5 GHz WiFi is a more bio-active low frequency field, with amplitude modulation at 10 Hz, then more complex meters may be needed.

2. Need for a non-thermal metric?

The safety level, $0.1 \mu\text{W}/\text{m}^2$, uses power density, sometimes said to be more suited to measuring heating effects, rather than non-thermal effects like EHS symptoms.

3. Need for new meters

The lowest readings on commonly used radiation meters are 5 to 10 times above this safety level of $0.1 \mu\text{W}/\text{m}^2$. Authorities and EHS people need appropriate meters which, for accuracy, may need to go well below this level, and well below $0.02 \text{ V}/\text{m}$.

B. Practical implementation of $0.1 \mu\text{W}/\text{m}^2$

1. Danger from mobile phones and tablets as well as WiFi

It is not just WiFi routers which may break the safety limit $0.1 \mu\text{W}/\text{m}^2$. If the school, public place or employer allows people to use or carry some tablets or smart phones, they could be failing to safeguard their EHS pupils or employees. These devices often link to mobile phone masts or form WiFi networks of their own accord.

2. 'Green' areas in schools, offices and public buildings

An easy solution to achieve 0.1 $\mu\text{W}/\text{m}^2$ zones is to create designated 'green' areas with WiFi routers switched off, and with notices requiring all radiation devices in airplane mode or switched off completely.

3. Education on radiation dangers

Most people do not yet know about the health dangers of WiFi and mobile radiation. The UK government's advice to children under 16, warning them to minimise use of mobile phones and similar devices, should be publicised. Parents, employers and doctors also need to be brought up to speed on the established medical science on these dangers. Many other countries are now publicising simple steps to minimise radiation exposure.

4. The national curriculum should include education on EM radiation hygiene

All children should be taught about the established dangers of electromagnetic radiation and the need to protect people sensitive to it. This would be similar to education on the dangers of drugs, smoking and other environmental hyper-sensitivities.

5. HSE warnings on special conditions, such as implants and dental fillings

The HSE commentary on the new EM regulations warns employers about people with metal implants, tattoos and metallic dental amalgam restorations. WiFi and mobile phone radiation can leach mercury from dental fillings, so schools and employers should, as in France, be required to post warning notices.

C. Regulatory implications of 0.1 $\mu\text{W}/\text{m}^2$

1. Inspections should include the safety limit 0.1 $\mu\text{W}/\text{m}^2$

Ofsted and HSE inspections should ensure safeguarding for sensitive pupils and employees at under the international sensitivity safety limit of 0.1 $\mu\text{W}/\text{m}^2$.

2. Equality, Disability and discrimination

A school or employer who fails to safeguard an EHS person, by ensuring the safety limit 0.1 $\mu\text{W}/\text{m}^2$, should not have the right to discriminate against them and exclude the pupil or employee. The pupil or employee is not to blame; they are not ill, except when made ill by the EM toxin. It is the polluted environment which is responsible for their disability and which needs to be rectified.

3. WHO/ICNIRP warning on sensitive people

Schools, public places and employers should comply with the World Health Organization's ICNIRP's warning of 2002 that parts of the general population need non-thermal safety limits,

below the ICNIRP heating-only limits.



4. UK government warning: schools should be radiation-free up to 16



Schools should follow the UK Chief Medical Officers' advice that all children under 16 "should be encouraged to use mobile phones for essential purposes only, and

to keep calls short" (NHS: Health advice on using mobile phones, 2011), by being radiation free, at least up to the age of 16. A former chairman of the HPA stated that children under 8 should never use mobiles.

5. Planning and medical health risks assessments

All planning authorities should be required to include a public health audit and medical risk assessment before allowing any radiation transmitter, in case of sensitive people resident or working nearby the proposed location.

6. Building regulations

These should include simple and low-cost ways or reducing exposure to ELF and RF fields in the home and workplace, with the potential for adaptation for sensitive people disabled by high levels of radiation, as at present for disability requiring wheel-chair access.



7. Transport design

This should include 'green' carriages and sections of buses or aircraft free from radiation for sensitive people, and cars designed for minimal radiation.

8. Redesign of electronic radiation devices

Patents exist which allow mobile phones to be made with reduced radiation; these should be required. All mobiles could be made to operate with headsets only. All mobiles could be supplied in radiation-proof cases for carrying in pockets or close to the body. All WiFi routers and cordless phones could default to off, unless activated if needed. All utility meters could be wired, as in some other countries. All iPads, tablets and mobiles, now often used for purposes other than communication, could default to no radiation unless deliberately switched on, and then stop after the 6 minute limit has been reached.

ELECTROSENSITIVITY RECOGNITION



Verdict recognising EHS upheld in French courts

The appeal by the MDPH (Departmental Home for Disabled People) against the judgment of the Toulouse Disability Litigation Court of July 2015 recognizing the right to an allowance for the “electrosensitivity” disability just been rejected. The judgment stating the “syndrome of hypersensitivity to EM waves” specifying “the description irrefutable clinical signs” and functional impairment of the complainant Marine Richard valued at 85% is definitively confirmed. The disabled adult allowance of €800 per month is assigned by court renewable for three years depending on the evolution of her disability. (Yvonne Lautre, “Agir pour les droits des électrosensibles” 26 October 2015)

City’s support plan for people with ES: “green spaces for housing and in all municipal buildings”

The municipal city council of Tarragona in Spain has voted to introduce a plan from 1 July 2016 to support people with ES and other similar intolerances, known as Central Sensitivity Syndromes (CSS). The protocol includes:

1. Carry out (with a yearly update) a diagnosis and census of those affected by CSS in the City of Tarragona, showing what is the actual situation and the specific needs of these patients and their families.
2. An intervention protocol for the staff of the Area of Services to Citizens of the Tarragona City Government to look after those with CSS, including a list of economic subsidies

for food, first necessity elements, reduced water bill, and home help specific to the needs of these patients.

3. Housing protocol for people with CSS, especially those who have MCS and/or EHS, those threatened by eviction or those who are forced to leave their home. This protocol has to include a series of safe social housing (green/white spaces: free of xenobiotics and EM waves).
4. Create green/white spaces in all municipal buildings (free of xenobiotics and EM waves).
5. Eliminate, as much as possible, the use of pesticides in the whole of the municipality.
6. Training for social workers and educators about CSS, its social, health and economic reality. Elaboration of information and education to increase the knowledge about these illnesses amongst the general population and of the city workers in particular, with the objective of diminishing the stigma that is now present regarding these illnesses.
7. Protocol for adapting working conditions of the municipal workers who have CSS with specific measures of support when having a flare-up. These would be the measures: work schedule flexibility, encourage work from home through internet (teleworking), reserved parking spaces and include in the collective agreement not to deduct the salary of the first 20 days of sick leave. (PARS, 29 November 2015)



ELECTROSENSITIVITY PROTECTION AND SHIELDING

How to Minimize Your EMF Risks

Advice to minimize the risk to your brain, and that of your child:

1. Respect others; many are highly sensitive to EMF. Some people who have become sensitive can feel the effects of others' cell phones in the same room, even when it is on but not being used. If you are in a meeting, on public transportation, in a courtroom or other public places, such as a doctor's office, keep your cell phone turned off out of consideration for the "secondhand radiation" effects. Children are also more vulnerable, so please avoid using your cell phone near children.
2. Don't let your child use a cell phone.
3. Keep your cell phone use to a minimum.
4. Reduce or eliminate your use of other wireless devices.
5. Limit cell phone use to areas with excellent reception.
6. Avoid carrying your cell phone on your body, and do not sleep with it under your pillow or near your head.
7. Don't assume one cell phone is safer than another.
8. Use a well-shielded wired headset. Wired headsets will certainly allow you to keep the cell phone farther away from your body. However, if a wired headset is not well-shielded, and most of them are not, the wire itself can act as an antenna attracting and transmitting radiation directly to your brain. So make sure the wire used to transmit the signal to your ear is shielded. (Dr Mercola, 20 January 2016)

School clothing to protect children

New clothing for school pupils protects from mobile phones. It costs 15,000 tenge (US\$62). "Kids nowadays spend too much time with their phones," Aigul Naushabayeva, mother of a 12-year-old daughter, said. She thinks this uniform will definitely be in demand for parents who want their children to be protected from the harmful effects of mobile phones: "Children should wear such uniforms as health is priceless." A compound of X-shield fabric that is sewn into inner pockets uses copper which protects against 80-90% of mobile phone radiation. The EM radiation protective uniforms can be purchased in Astana, Karaganda and Moscow. 50,000 sets of the uniform were made this year and up to 70,000 are planned for next year. Frequent use of mobile phones increases children's risks of memory and sleep disorders, harming brain rhythms and the child's immune system. (Kamila Zhumabayeva "Kazakh Factory Produces School Uniforms that Protect from Cell Phone Radiation" The Astana Times, 7 September 2015)



New nickel-carbon protective material

"Your next tinfoil hat will won't be made of tinfoil. A small company called Conductive Composites out of Utah, USA, has developed a flexible material — thin and tough enough for wallpaper or woven fabric — that can keep electronic emissions in and electromagnetic pulses out." This new material layers nickel on carbon to form a material that's light and mouldable like plastic yet can disperse energy like a traditional metal cage or Faraday cage, now common in business. For the military it will be a useful defence against electromagnetic pulse weapons (EMPs), researched by the Soviets since 1949 and featured in the 2005 James Bond film GoldenEye, but could be a problem if enemy drones are protected against electronic attack. (Patrick Tucker: "A New Material Promises NSA-Proof Wallpaper" Defense One, 23 October 2015)

Buildings designed for electromagnetic protection

André Fauteux has written a useful article called “More and more Canadians are calling on building professionals to reduce their exposure. Here’s what you need to know” in the Home Builder Magazine (2015).



Reduced EMF housing in Seattle

Isola Home’s “Vida” project is Seattle’s first “EMF Reduced” community featuring 15 row homes located in the Central District, at 120 20th Avenue. In addition to sustainability features, the Vida project addresses the growing public concern about the health effects of an increasingly wired world. EMF’s (electromagnetic field) come from electricity and include power lines, wiring, and hand-held devices, wireless technologies such as cell phones and towers, WiFi, wireless routers, baby monitors, and appliances. The health effects often cited in the research include damage to DNA and genes, memory loss, learning, behaviour, attention disorders, sleep disruption, cancer and neurological diseases like Alzheimer’s disease. With



Vida, Seattle-based, home builder Isola Homes, partnered with Dana Stream, CEO of Lifestream Solutions to look at ‘EMF ‘at various levels of the project’s development. “For decades, the tobacco industry didn’t find any ‘conclusive evidence’ about the health risks of smoking. Isola prefers to put health and wellness first,” said Stream. More Millennials and Boomers are choosing to power down and reduce their exposure to electricity. Vida took a similar approach starting with the foundation by shielding the wiring, and designing an EMF ‘Quiet Zone’ in the sleeping area. (Eva Otto “Seattle’s First EMF-Reduced Homes Debut in the Central District” Capitol Hill Seattle, 30 March 2015)

France: EHS occupy an abandoned building

People with EHS, who demand a White Zone, decided to occupy an abandoned building in Saint Julien Hautes Alpes. “We found that at the site our symptoms disappeared by chance and decided to occupy the premises. We have food for a few days,” Colas Diallo, one of the occupants, said; he wanted “awareness of the question of hypersensitivity to EM waves.” (“Hautes-Alpes: The “electro-hypersensitive” occupy an abandoned building” France 3 Province, 11 September 2015)

Satellite zapping

Dr William Rea, in his talk on “Triggering Agents in Electromagnetic Sensitivity” (2015, on Youtube), recalls someone extremely electrosensitive having to live in a cave in a canyon, but still admitting that when outside: “Every time a satellite goes over I get zapped”.



FRANCE: DOCTORS' APPEAL ON EHS

Doctors' Appeal for EHS recognition

Appeal of doctors and healthcare professionals: "To better understand and recognize electro-hypersensitivity" ("Appel de medecins et professionnels de sante: "Pour mieux comprendre et reconnoitre l'Electro-hypersensibilite", symposium, National Assembly, 11 February 2016).

"A. We, doctors, scientists and health professionals, considering the appeal of Freiburg launched in 2002 by physicians, have found in recent years during our consultations a dramatic rise in severe and chronic diseases among our patients, such as: Symptoms usually found from mobile phone use:

- Pain and/or heat in the ear;
 - Disorders of the surface sensitivity, type dysesthesia (tingling, burning or itching), on the face, scalp or arm.
- Then, gradually and permanently:
- Headache, associated typically with stiffness and pain in the neck;
 - Tinnitus, hyperacusis;
 - Visual disturbances type of blurred visions;
 - Anomalies of deep sensitivity (false vertigo), malaise;
 - Skin lesions with sensation of burns (causalgia) and/or itching;
 - Muscle disorders (myalgia, spasms, twitching) and/or joints (arthralgia, stiffness);
 - Cognitive disorders.

Second stage:

- Onset of severe cognitive disorders (attention deficit and concentration, loss of short-term memory);
- Vegetative symptoms

sympathomimetic [of the sympathetic nervous system] (chest tightness, tachycardia);

- Digestive or urinary disorders;
- Insomnia, chronic fatigue and possibly depressive tendency.

And finally, in the absence of treatment and protection measures, progress is marked by the progressive development of pathological lesions, totally irreversible: delirium, absences, spatial disorientation or temporal state of dementia resembling Alzheimer's disease, including young subjects.

In children: headache and sleep disorders, dyslexia, attention disorders and concentration, loss of memory attachment, sometimes behavioural problems (child refusing to go to school without reason).

B. Considering that we know the residential environment and habits of our patients, we often see a correlation in time and space, between the occurrence of these disorders and the beginning of the extension of EM radiation waves, in cases such as:

- The installation of a mobile phone mast in the vicinity of the home or the patient's workplace;
- intensive use of a mobile phone;
- using a DECT cordless phone at home or at work.



Electromagnetic fields thus appear to partly explain the appearance of these disorders. As indicated in the International Scientific Declaration on Electro-hypersensitivity and Multiple Chemical Sensitivity, signed by scientists and doctors around the world gathered at the Royal Academy of Medicine in Brussels in May 2015, on the initiative of the ECERI, biomarkers have been identified in EHS sufferers that establish the existence of true debilitating conditions, so much so that some people must isolate themselves from places polluted by EM fields (WiFi, mobile phones etc) to continue to live under the most normal conditions possible.

C. However, this disease is still not recognized by the French health authorities. In the context of the recognition by the Disability Tribunal at Toulouse of 80% of disability incapacity suffered by a patient with electro-hypersensitivity, we believe it is finally time to discuss this major public health issue. The pathology is complex and multifactorial. We lack knowledge about these people, whose physical suffering is real and symptoms exist. Although scientific controversy remains in some respects on the subject, these patients exist and they must have medical responses to alleviate their suffering. We need to be better

informed on health impacts of EM fields and to be equipped with tools to better help these patients. We call solemnly as the French government, and particularly the Minister of Health, to make the health impact of EM fields a health priority and deal with the increasing number of these patients, who are mostly in big trouble and social insecurity.

D. It seems essential, as a precaution, to lower the general population exposure to EM fields; especially in terms of children, to reduce their exposure to WiFi and tablets in schools. An independent and thorough research should be conducted on the subject and electro-hypersensitive persons should be able to take refuge in “white areas”.

E. Finally, the decisions of some Disabled Persons Departments to recognise electro-hypersensitivity as a disability must be definitively validated and applied by all MDPH for supporting all people with EHS.” [With a list of signatories.]

France: EHS “taboo for health authorities”

MP Laurence Abeille (EELV, Val-de-Marne) and MEP Michèle Rivasi (EELV) organised a symposium to publicise and recognise electro-hypersensitivity on 11 February 2016 at the French National Assembly. Ms. Abeille, in FranceSoir, called for health authorities to be aware “that the protection of populations is a priority, and to set standards”. Known for decades, the subject remains taboo for health authorities.



Ms. Abeille protested in particular at the lack of interest of the Minister of Health for these patients. “A mistake” on the part of Marisol Touraine, she said: “Today’s children are born in this context and there is no attention that this is being seriously considered. Electro-hypersensitivity is a phenomenon known since the 1950’s. Originally, these were symptoms related to the use of radar. Today we have an explosion of wireless technologies and over the last decade, cases of intolerance to electromagnetic waves have appeared. Symptoms are quite varied, making it sometimes difficult to make the connection, but the best known are unbearable headaches or skin problems. There is also the recognition of brain tumors directly related to the use of a mobile phone held to the ear. As for numbers, experts agree that 1-3% of the population would be affected by electro-hypersensitivity to different degrees. These figures are increasing and some mention

4 to 5% of the population could be affected in the coming years. All the studies on the subject show that there is greater risk for younger persons because their blood-brain barrier, the shell that protects the brain, is not sufficiently developed and is more porous. The authorities already recommend not letting them play with wireless-connected tablets or phones and, thanks to my law, have banned WiFi in nursery schools, but not in other schools. We are faced with a wireless lobby, notably telecoms operators, which is up in arms against the law which I had voted, even if it is very measured, and against anything that might limit their profit. Scientists from around the world have published numerous studies proving the existence of this disease. The “strategy of doubt” is being implemented by the industrial and financial lobbies; this is what happened with asbestos. It is here that the political decision-making must intervene: to say that protecting the population is a priority and to set standards.” (Pierre Plottu: “Douleurs ‘insupportables’ et poids des lobbys: Laurence Abeille combat l’hypersensibilité aux ondes” France Soir, 10 February 2016; “France: ‘Unbearable’ Pain and Vested Interests: Laurence Abeille Tackles Electrohypersensitivity” Towards Better Health, 12 February 2016)

WIFI AND MOBILE PHONE DANGERS

UK

Terminal cancer from mobile phone

Wendy Holt, 51, from Bracknell, Berkshire, fell into a habit of keeping her phone in her bra when she went out so it would be within easy reach. However she now believes radiation from her phone was to blame for her breast cancer diagnosis in 2012, as she had no family history of the disease. Despite no longer storing her phone in this way, and getting the all clear of cancer, the disease returned in her lungs and lymph nodes earlier this year. Her terminal diagnosis means it's unlikely she will reach her 53rd birthday. (Anna Hodgekiss "Mother who kept her phone in her bra every day for 10 Years is convinced it caused her terminal breast cancer" Daily Mail, 9 September 2015)



Breast cancer after carrying a phone in the bra

The coloured spots on the left show the position of a woman's three different breast cancer tumours. They coincided with where she carried her mobile in her bra.

Phones 'need health warnings'
"Smartphones and social networks should come with warnings about their recommended daily use to protect children's mental health according to a public policy think tank. The Strategic Society Centre believes that big technology companies will face the same

backlash as big tobacco companies if they fail to admit health risks attached to their products. In its report, Screened Out, it recommends national guidelines for the use of smartphones, tablets, video games consoles and social networking sites." (James Dean "Phones 'need health warnings'" The Times, 12 October 2015)

Tablets at bedtime should reduce blue light

Smartphones, tablets and e-readers should have an automatic "bedtime mode" that stops them disrupting people's sleep, says a leading doctor. Prof Paul Gringras, from Evelina Children's Hospital in London, argued the setting should filter out the blue light that delays the body clock and keeps people awake later into the evening. He said manufacturers needed to show more "responsibility". As it gets darker in the evening, the body starts to produce the sleep hormone melatonin, which helps people nod off. Certain wavelengths of light, those at the blue-green end of the spectrum, can disrupt the system. (James Gallagher: "Phones need 'bed mode' to protect sleep" BBC News, 15 November 2015; Gringras P et al, Front Public Health, 2015)

Virgin spreads WiFi 2B cancer agent

Virgin Media will offer the UK's first "smart pavement" free broadband WiFi in Chesham. It uses transmitters underneath resin manhole covers on its cable service and in its service cabinets each giving some 80m coverage. Virgin, like BT and O2, will also offer access to its network through home router WiFi hotspots. BT is the largest provider of WiFi in the UK with more than 5m hotspots. (Daniel Thomas "Virgin Media launches 'smart pavement' WiFi in UK" Financial Times, 14 October 2015)

EUROPE

Excellent government video: "Since you love us, why do you radiate us with WiFi?"

The Government of Cyprus' National Committee on Environment and Children's Health has produced a powerful 7 minute video: "Advice: Protect Children from Radiation of Mobile Phones and WiFi". It includes a child asking: "Since you love us, why do you radiate us with WiFi and mobile phones? You have the ability to protect us." Dr Maro Solomou of the Cyprus Paediatric Society states: "Do not give wireless devices to children under 14 years old." <https://www.youtube.com/watch?v=H43IKNjTvRM>

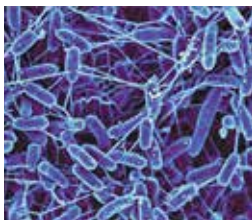
Italian town switches off schools' WiFi

"The mayor of Borgofranco d'Ivrea, a town in Piedmont, has ordered Wi-Fi to be turned off in two schools over health fears. Mayor Livio Tola told the town's high school and elementary school to return to using cables to connect to the internet after reading that the EM waves given off by wireless routers were especially harmful to young children." ("Italian town shuts down Wi-Fi over health fears" The Local Italy, 8 January 2016)



Cyprus MPs: axe school WiFi, ban teenagers from radiation devices

“Lawmakers yesterday discussed what Greens leader Giorgos Perdakis called damning



evidence of psychological and physical effects on children from using mobile phones, tablets, laptops and Wi-Fi. Speaking after a session of the House environment committee, Perdakis said the Green Party would be tabling the issue to the House for a reduction to the acceptable limit for EM radiation. Perdakis said that based on the evidence, children and teenagers should be banned from using such technology, and went as far as to say that it was criminal to allow children to access electronic devices. He recommended a series of measures such as banning the use of mobile phones to minors, not building primary schools and nurseries near mobile phone antennas, and axing Wi-Fi at schools.” (Andria Kades “Technology harming our children’ MPs say”, Cyprus Mail, 10 September 2015)

AUSTRALIA



Australian mother prevents WiFi in ES child’s school: “discrimination” danger

“An Australian mum has been successful in preventing installation of WiFi at her child’s school and has worked with the school in drafting EMR precautionary measures by requesting compliance with the Disability Discrimination Act 1992 and Article 9: Accessibility from the Conventions on the Rights of the Disabled to accommodate her child’s

functional impairment. She stated “My child has a sensitivity to EMR; specifically WiFi and Bluetooth elicit symptoms.” The school environment was very good already, to change that by installing WiFi would exclude the child’s access to the school. The first step she took was to register a complaint form on the Department of Education’s website she said. “I requested help to find a WiFi-free high school and stated my child’s health complaints and symptoms. Rather than sending an email which could get “lost” in the system, I chose to use the education department’s processes for registering my complaint regarding accessibility to schools.” Around the same time, the child’s school initiated the WiFi installation discussion again. This quickly led to further conversations with the school and district education officers covering both accessibility issues. “I read extensively regarding disability in education policy, on human rights and Electro Hypersensitivity where functional impairment and disability were the focus. I was particularly interested in the perspectives of Prof Olle Johansson and Dr Isaac Jameison, in relation to disability, human rights and the built environment.” Referring to General Comment No. 2 (2014) Article 9: Accessibility and cross referencing with the Disability Discrimination Act and Disability Standards for Education, it became apparent that to override the hardwired system with WiFi could put the school and decision makers in a position of discriminating against the child’s right to education on an equal basis with other students as they would be preventing accessibility to the school. The mother said raising discrimination and liability issues ended the possibility of going to a public vote for WiFi in the school. Such an action would leave those voting in breach of the Disability Discrimination Act 1992 and Article 9 – Accessibility from the Conventions on the Rights of the Disabled and numerous other conventions cited below. The significance of accessibility can be derived also from general comment No 14 (2000) of the Committee on Economic, Social and Cultural Rights on the right to the highest attainable standard of health (para 12). In its general comment No.9 on the rights of children with disabilities, the Committee on the

Rights of the Child emphasizes that the physical inaccessibility of public transportation and other facilities, including governmental buildings, shopping areas and recreational facilities, is a major factor in the marginalization and exclusion of children with disabilities and markedly compromises their access to services, including health and education (para 39). The importance of accessibility was reiterated by the Committee on the Rights of the Child in its general comment No. 17 (2013) on the right of the child to rest, leisure, play, recreational activities, cultural life and the arts.” (General Comment No. 2 (2014) Article 9: Accessibility). (“Parent’s success in stopping WiFi installation at Australian school” EMFacts, 5 November 2015)

“A toxic environment cannot override the needs of a child”

Prof. Olle Johansson: “My personal comment is: By her actions, this mother has refused to have her child labelled with an illness diagnosis, to be viewed as a patient, and to receive various forms of flimsy treatments such as cognitive behavioural ones. She refused an exclusive and inferior environment to be excused. She did the very best for her child, calling for adult responsibility from the authorities, forcing them to act according to all the documents that all civilized governments and parliaments already have signed and accredited. In a morally and ethically sound society, a toxic environment can never be allowed to override the needs of a child, the latter can never be given a price tag. I urge everyone to follow this woman’s example, and to speak up in the very and only interest of your loved ones. It is completely according to the direction of the United Nation (especially the UN “Convention on Human Rights for Persons with Functional Impairments”) and the World Health Organization, and it clearly points to the environment being the culprit, thus being the actual “patient”, with a “diagnosis”, and to be “treated”. Finally, the school’s unusual willingness and positive attitude honours them and should not be forgotten.” (8 November 2015)



“Dangers from Wi-Fi and mobile phones: for a scientist to get his facts so wrong is inexcusable”

“This morning on the ABC breakfast TV program, Australia’s well known science presenter and resident expert on all things, Dr Karl Kruszeinicki was interviewed on reports of dangers from Wi-Fi and mobile phones ... he saw no dangers other than heating (the old thermal paradigm) and actually said that the WHO had examined the issue and “found nothing”. For a scientist to get his facts so wrong on a nationwide ABC broadcast is inexcusable. Nothing was said about the WHO’s agency, the International Agency for Research on Cancer’s (IARC) classification of radiofrequency as a possible human carcinogen. Nothing about Hardell’s findings, just a highly public all clear for the telco industry and the government’s pro-telco policy. Interestingly there was a brief flash in the program showing the “International EMF Scientist Appeal” which asks the Secretary General and UN affiliated bodies to encourage precautionary measures, to limit EMF exposures, and to educate the public about health risks, particularly to children and pregnant women. Kruszeinicki did not refer to this Appeal and so it was apparent that the point to his whole presentation was a subtle casting of doubt over the Appeal’s claims. Did Kruszeinicki even bother to read and consider the Appeal before attacking it?” (“Dr Karl Kruszeinicki gets his science facts so terribly wrong” EMFacts, 13 September 2015)

CANADA

School Wifi illness: “unethical and unlawful experiment on children”

Eight-year-old Tyler Hoffmann has energy to burn. But in April 2012 he began coming home from Sangster Elementary School in the Sooke School District with extreme headaches and fatigue. And he was having trouble sleeping at night. But as the headaches grew worse over the next few weeks, to the point of nausea, Tyler was no longer able to touch the source of it, stating it

was now in the middle of his head. “After a few weeks of using Advil and Tylenol to alleviate the severe pain in Tyler’s head, we knew something was seriously wrong,” Lori says. The following month, she discovered what it was. “We accidentally discovered, through another parent, that the school district had just finished installing commercial wi-fi networks throughout every school,” Lori explains. Tyler’s pediatrician recommended that the school shut off the wi-fi router closest to Tyler’s classroom, so that Tyler could remain in school and complete Grade 2 with his friends. The school’s wi-fi routers, all active and transmitting, were not being used at the time because there were no computers. So the request seemed simple enough, but the Sooke School District did not agree. Lori pulled Tyler out of school that same day rather than risk his health any further. “After we removed Tyler from school, his headaches and associated nausea completely stopped,” says Lori. In September 2012, his mother enrolled Tyler in an elementary school in the neighbouring Victoria School District, with no wi-fi router in his classroom. Free from the toxic effects of commercial wi-fi in the classroom, Tyler performed at the top of his math and reading classes at his new school. “It is unethical and unlawful to experiment on children,” says Tyler’s grandmother Janis Hoffmann. “Wi-fi is an unregulated technology that has not been tested for safety for children in schools. Parents have not been informed of



the risks and have never been asked to sign a consent form. Ironically, the student field trips are explained in great detail, requiring parents to sign a permission slip before children are permitted to attend.” (Kim Goldberg “Extreme headaches and fatigue & WiFi” 15 August 2013; see: electroplague.com for her forthcoming book.)



Apply precautionary principle to Wi-Fi in parks

“I’m asking Nelson city council to provide me with links to peer reviewed scientific studies that prove beyond a doubt that the rapidly increasing layers of EM radiation are completely safe for the unborn, pregnant women and small children, all of whom spend significant amounts of time in Nelson’s city parks. As the elected officials of a municipality, it is their duty to abide by the Public Health Act which gives them the provision to “regulate and prohibit for the purposes of maintaining, promoting or preserving public health.” Until the safety for the above mentioned population can be proven, the precautionary principle must be followed by Nelson city council. This means that all parks remain free of Shaw’s or any other wireless provider’s electromagnetic radiation coverage (Wi-Fi and broadband).” (Nadja Hall, “Apply precautionary principle to Wi-Fi in parks” letter, Nelson Star, 17 December 2015)

INDIA

WiFi contributes to “increasing number of cancer cases”

“Even as the TRS and BJP-TDP combined have promised in their manifestoes to make Hyderabad into a Wi-Fi city, the city-based doctors caution that it would contribute to increasing number of cancer cases since the devices installed throughout the city would only augment the radiation emission and causes exposure to continuous EMF. The TRS government has already rolled out Wi-Fi service at 30 hotspots. The doctors have expressed concern over the fact that growing number of households has been keeping Wi-Fi routers active in their houses which emits

radiation. The children's brains are delicate and the radiation affects them directly, they point out. They suggested turning off the Wi-Fi when not in use. Cancer is believed to be a result from changes in DNA. DNA's coil structure makes it exquisitely sensitive to EM fields more than other tissue in the body. "If I get an opportunity, I shall explain it to IT Minister KT Rama Rao. He will surely remove Wi-Fi from his house," says Saxena confidently. (Md Nizamuddin "Doctors caution on hazards of Wi-Fi use" The Hans India, 8 February 2016)

guidelines. The CTIA, The Wireless Association, claimed the law violated freedom of speech. A user may be exposed to levels that exceed those standards by carrying a phone in a pocket or tucked into a bra when the device is connected to a wireless network. The FCC "did set specific limits and did so in order to assure safety." CTIA's disagreement is not enough to make the city's message "controversial," the judge said, noting that "science is almost always debatable at some level." (Bob Egelko "Judge lets Berkeley require cell phone warnings" SFGate, 28 January 2016)

time without smartphones, which makes it equally easy to forget that the technology is still relatively new, with safety requirements that, for the most part, are generally untested. The scientific community's rumblings about brain cancer and the new-to-us affliction "electro-sensitivity" are worth exploring, at the very least, so we tapped three experts in the field—Dr. David Carpenter, Ann Louise Gittleman, and Devra Davis—to help us understand the complicated and messy world of cell phone and WiFi safety." (Gwyneth Paltrow: Goop; Bianca London, Daily Mail, 29 January 2016)

USA



Berkeley law warns of mobile dangers – Sept. 2015

Federal district judge Edward Chen ruled in favour of the City of Berkeley's 'right to know' ordinance as regards warnings about the dangers of mobile phones at the point of sale. This was against a First Amendment challenge by the CTIA. A sentence about children being at greater danger was removed on the grounds that it was not in the FCC warnings. (Lance Knobel: "Court rules for Berkeley in cellphone right to know case" Berkeleyside, 22 September 2015)

Berkeley law warns of mobile dangers – Jan. 2016

A federal judge, U.S. District Judge Edward Chen of San Francisco, says Berkeley's mobile phone warning law is allowable because it is based on the Federal Communications Commission's (FCC) research and guidelines. Despite industry objections, Berkeley can start requiring cell phone retailers to tell customers that carrying switched-on phones too close to their bodies might expose them to radiation levels higher than recommended by federal

Berkeley mobile phone warning at the point of sale

"To assure safety, the Federal Government requires that cell phones meet radio frequency (RF) exposure guidelines. If you carry or use your phone in a pants or shirt pocket or tucked into a bra when the phone is ON and connected to a wireless network, you may exceed the federal guidelines for exposure to RF radiation. Refer to the instructions in your phone or user manual for information about how to use your phone safely."

Parents against "WiFi on steroids"

"Parents of children in Maryland are waging a battle to have wi-fi equipment removed from classrooms. School authorities thus far are claiming the classrooms meet 'FCC regulations.' 'School Wi-Fi is Wi-Fi on steroids,' says Safe Tech for Schools Maryland. The organization says school authorities are ignoring 13 letters from medical doctors, researchers and others interested in combating excessive EM radiation, particularly radiation that affects children whether in classrooms or outside of classrooms. (Jack O'Dwyer: "Maryland Parents Battle Wi-Fi in Schools" 26 January 2016)

Gwyneth Paltrow: "Are Cell Phones and WiFi Signals Toxic?"

"Gwyneth Paltrow warns of dangers of 'toxic' mobile phones ... This week, the 43-year-old A-lister has shared some invaluable advice. She writes about brain cancer and 'electro-sensitivity,'" according to the Daily Mail. She wrote: "It's almost impossible to remember a

Little in media about dangers: "it might annoy advertisers"

"PR people, who are major users of computers and cellphones, and parents who hopefully can control of the use of such devices by their children, should explore the extensive literature and research pointing to the health dangers presented by them. Little is said in major media about such dangers possibly because it might annoy advertisers such as the cellphone carriers and manufacturers, Apple and other computer companies. Critics say health hazards of smoking were documented as early as 1939 but it was not until 1963 that the U.S. Surgeon General declared them unhealthy." (Jack O'Dwyer: "Cellphone, Computer Radiation Is a Danger" 19 January 2016)



Specific EHS symptoms from Google Expeditions app – against UK advice?

The radiation programme in the Montgomery County school system in the USA has come under criticism. A Fox5 news bulletin has highlighted health problems from the Google cardboard box Expeditions app (Laura Evans: "Health Concerns over Wi-Fi technology exposure in schools", Fox5 News, 15 February 2016, 5 min.) which requires children to hold a mobile phone close in front of their eyes and brain. Laura Simon, a mother of a nine-year old, said: "The kids were complaining of headaches, nausea and dizziness, and they had eye strain, and there was a Google rep there that just said: "Just take a few minutes; this is normal." [Presumably no responsible school would use this system in the UK, since current NHS advice is: "the UK Chief Medical Officers advise that children and young people under 16 should be encouraged to use mobile phones for essential purposes only, and to keep calls short." – Ed.]

WiFi kiosks violate rights

"The 7,500 high-powered Wi-Fi kiosks proposed for New York City are a violation of civil rights, say critics. The kiosks are to be discussed on 10 February 2016 in Brooklyn. The event should be shifted to New York." (Jack O'Dwyer: "New York City Wi-Fi Kiosks Said to Violate Civil Rights" 1 February 2016)

Video on WiFi harm in schools

Dr Karl Maret ("WiFi Dosimetry in a School: Preliminary Observations" Electromagnetic Health, 22 June 2015, 10 min., //vimeo.com/132039697) contrasts the levels of WiFi exposure in a coffee shop with the much higher levels in a school where the peaks matched the headache symptoms in an EHS child.

Remove WiFi from schools: "governments are currently part of the problem"

Dr Powell, a retired US government scientist and Harvard graduate, warns of the dangers of WiFi and other wireless devices.

"If wireless devices, such as WiFi, are used in your schools, then the health of your staff, your teachers, and your students can be at risk. But this problem can be successfully addressed, and with benefit to all. Some of the more serious consequences of exposure to radiofrequency/microwave radiation (such as DNA damage, cancer, and infertility) are especially nefarious because they give no early warning signs. Other consequences of exposure do give early warning signs (such as sleep disruption, headaches, fatigue, ringing in the ears, memory loss, dizziness, heart arrhythmia, and many others); but, those signs are too often dismissed because they can have other causes as well, complicating identification of the true cause. The absence of routine training of physicians in the biological effects of radiofrequency/microwave radiation makes it difficult for physicians to identify the causes and to provide responsive guidance. Even aware individuals cannot control their exposure in any environment shared with others, because the radiation around them, much like second-hand smoke, is forced on them by unaware individuals. Only governments can fully solve this problem, but they are currently part of the problem." (Ronald Powell: "Message to Public Schools and Parents about Wireless Devices and Health" The Green Gazette, 12 November 2015)



Schools limit WiFi radiation exposure

Ashland Public School District in Massachusetts, USA, has implemented WiFi Device "Best Practices" which include turning the WiFi off when not in use and keeping devices on a table, based on its own review of the matter. These "best practices for mobile devices" are a policy to substantially reduce wireless exposures to students and staff. Parent Cecelia Doucette worked with state legislatures who introduced two bills concerning EM radiation this session. The Environmental Health Trust submitted written testimony on MA Senate Bill 1222 after expert scientists presented information on wireless health risks at a briefing at the Massachusetts State House in June 2015. Instructions for "Best Practices" are posted in every classroom and include:

- Turn off the device when not in use
- Turn Wi-Fi on only when needed
- Always place the mobile device on a solid surface
- Viewing distance should be a minimum of 12 inches from the screen
- Specific product information guides are available through the IT department
- We ask that staff members regularly remind and instruct students in using best practices in regards to mobile devices. ("First US Public School District Limits Wi-Fi Radiation Exposure to Students and Staff" Digital Journal, 28 September 2015)

Excellent video on Wireless dangers

See a TEDx Talk at Berkeley called "Wireless Wake-Up Call" (16 min.). It is by Jeromy Johnson, who worked in Silicon Valley for 15 years but became "Electro-hypersensitive" (EHS) in 2011 after extensive exposure to EMF radiation.



WIFI DANGERS ON AUSTRALIAN TV



An excellent investigative Australian TV programme (ABC Catalyst: 'Wi-Fried?' 16 February 2016, 29 minutes) dealt with whether WiFi can be dangerous. It suits Australia, since scientists there are said to have patented key elements of the notorious WiFi radiation system. It is unclear how far those scientists are responsible for the misery and ill health brought to many people around the world because of WiFi, although some people allege that they did not carry out full health and safety checks before releasing their invention. The reactions to the programme reveal much about those still trying to defend WiFi against the growing scientific evidence.

'Wi-Fried?' reactions: applause or lies?

'Wi-Fried?' seems to have been received positively by many of the leading scientists involved in researching health effects from WiFi, mobile phones and similar radiation. Powerwatch, for instance, called it "a really excellent Australian documentary" (19 February 2016). It has, however, been condemned by some pro-wireless activists and members of ICNIRP. Critics note that some claims appear invalid, such as saying it is 'safe' or that there is 'no scientific evidence' of 'an impact on human health', when hundreds of scientific studies prove there is evidence of health effects, and scientific evidence of health effects has

led to both ELF and RF radiation being classified as 2B human carcinogens. This refusal to accept the scientific evidence has parallels with the way in which similar pro-wireless activists operate, as seen in the refusal at one stage of SCENIHR even to consider the studies confirming links between mobile phone radiation and brain tumours.

'Wi-Fried' introduction

The introduction asks: "Could wifi-enabled devices be harmful to our health? You cannot see it or hear it but Wi-Fi blankets our homes, our schools and our cities. Australia's safety agency says there's no evidence of harm, but that's not the same as saying it's safe. A growing number of scientists are concerned that the widespread use of Wi-Fi and Wi-Fi-enabled devices could be slowly making us sick. In this Catalyst investigation, Dr Maryanne Demasi explores whether our wireless devices could be putting our health at risk."

Dr Maryanne Demasi: 'No evidence of health risk' is not the same as 'safe'

"We now exist in a sea of radiofrequency (RF) radiation, never before seen in human history. The levels of artificial electromagnetic radiation have reportedly reached a quintillion (10¹⁸) times higher than the natural background levels. In 2011, the International Agency for Research on Cancer (IARC) classified RF EM fields as a "possible human carcinogen". Much of the evidence was based on studies showing an association between the development of glioma (a malignant brain tumour) and the longest use of wireless phones.

US cancer epidemiologist, Dr Devra Davis says, "We've gone from the equivalent of the horse and buggy to the jet in about 10 years." Dr Davis is highly credentialed. She was a senior scientist at the National Academy of Sciences, and a presidential appointee of the Clinton Administration and a member of the team awarded a Nobel Peace Prize with Al Gore in 2007. She has been campaigning for the safer use of Wi-Fi technology, especially in children. "Millions of children are being exposed to something that has never been fully tested," says Dr Davis. "We're treating our children like lab rats in an experiment with no controls." More and more parents are concerned about their children's cumulative exposure to Wi-Fi, especially because children's brains absorb twice as much radiation than adults. "It's almost a case of involuntary consent. Parents are sending their children to school to sit in a 'possible' human carcinogen," one parent told me.

Former CEO of Microsoft Canada, Mr Frank Clegg says we've been misled about the evidence. He has rare insight into the machinations of the technology industry. "My industry is on a campaign to bury the science and to confuse the message on the harmful effects of wireless devices," says Mr Clegg. "My concern is nobody can say that it's safe." (Dr Maryanne Demasi: "Mobile phones and brain cancer: 'no evidence of health risk' is not the same as 'safe'" The Guardian, 15 February 2016)



ICNIRP member: very confident radiation is 'safe'

Rodney Croft, a psychologist and member of the pro-wireless private group ICNIRP, who was reported in September 2013 as leading an Australian team which would “focus on debunking criticism by activists and the researchers will also look into the role EM energy plays in people who claim to be sensitive to wireless signals”, responded: “Of course it is impossible for science to demonstrate that anything is absolutely safe, and so regardless of whether we’re talking about Wi-Fi or orange juice, science cannot demonstrate absolute safety. However, given that radiofrequency emissions are one of the most heavily researched agents that science has ever assessed, and given that (contrary to Catalyst’s claims) no substantiated health effects have emerged, we can be very confident that the emissions are indeed safe.” [Then why do many countries have much safer radiation levels than Australia, why have France and other countries banned some WiFi, why do mobile phones warn of dangers from use close to the body, why do increasing numbers of governments accept the reality of EHS, why does the UK government warn against children under 16 using mobiles, and why does ICNIRP advise governments that the parts of the general population sensitive to EM radiation need non-thermal safety limits below ICNIRP’s heating ones? – Ed.]

ICNIRP expert’s response: “no scientific evidence” of “an impact on health”

Sarah Loughran (a member of the WHO Environmental Health Criterion Evaluation Committee on RF Fields, the Scientific Expert Group of ICNIRP, and a director of the Bioelectromagnetics Society): “There is currently no scientific evidence that exposure

to low level radiofrequency, such as emitted by mobile phones and Wi-Fi, has an impact on health.” (“Do Wi-Fi and mobile phones really cause cancer?” The Conversation, 17 February 2016) [What about the many thousands of scientific studies since the 1930s which incontrovertibly show ‘an impact on health’? – Ed.]

Is scientific investigation “scaremongering”?

Darren Saunders: “There are very real public health effects of scaremongering like this, creating anxiety and fear.” (“Do Wi-Fi and mobile phones really cause cancer?” The Conversation, 17 February 2016)

Hasn’t a “nocebo response” been disproved scientifically?

Another response came from David Grimes, who was awarded the 2014 John Maddox prize partly sponsored by Sense About Science, the organisation allegedly involved in the scandal over industry funding and concerns about sugar: “A British charity set up to promote evidence-based science received more than £20,000 from Coca-Cola and then questioned research that was critical of sugary drinks.” (The Times: “Charity cast doubt on sugar deaths but failed to reveal Coca-Cola link”, 10 October 2015). Grimes makes claims contradicting the strong evidence from three recent research groups linking long-term mobile phone use and some brain tumours: “To date, there is no evidence that mobile phone usage increases cancer risk”. Equally perplexing are his claims about EHS: “There is zero evidence supporting their position ... Those struggling with EHS appear to be victims not of electromagnetic malaise but rather of a psychological quirk known as the nocebo response.” The set of studies from 2015, including objective markers for

EHS, listed elsewhere in this Newsletter, and Dieudonné’s study specifically disproving the nocebo hypothesis for real EHS rather than Grimes’ Electrophobia, suggest that, as he writes: “if we are to make informed decisions on health and technology, misplaced fear of the unknown or dogmatic convictions are simply no substitute for evidence and understanding.” (David R Grimes: “Household electromagnetic radiation doesn’t make you ill or give you cancer. Here’s why” Guardian, 17 February 2016)

Response by Dr Maryanne Demasi, the presenter/producer

“The claims that our program “should never have aired” should not sit well with the public. At best, it’s an over-reaction. At worst, it’s a form of censorship. Several other countries around the world have more stringent radio frequency safety thresholds than Australia. Italy, China, Switzerland and Russia have wireless safety limits, which are a hundred times more stringent than our own. In France, they restrict advertising of mobile phones to children. They have also banned Wi-Fi in nurseries and day care centres. So I decided to investigate. Why are some countries making these changes and not Australia? To say that this is a fringe view is not sustainable. We also invited two high profile critics of Davis onto the program to dispute her claims: Professor Simon Chapman and Professor Bernard Stewart, but they both declined. Perplexingly, they have since launched a passionate rebuttal of Davis in print media.” (Dr Maryanne Demasi: “Sometimes Asking Questions Provides You With Answers That May Be Uncomfortable”, Huffington Post, 19 February 2016)



USA: CHILDREN'S MOBILE WARNING REMOVED



CDC removal of children's warning: Ken Foster "downplayed risks"

Following the WHO's classification of radio frequency as a 2B carcinogen in 2011, the USA's Centre for Disease Control and Prevention (CDC) issued new precautionary guidelines, especially for children, but then withdrew them a few weeks later. An investigation published in the New York Times shows the split in attitude among officials. "Although the initial CDC changes, which were released in June 2014, had been three years in the making, officials quickly realized they had taken a step they were not prepared for. Health officials and advocates began asking if the new language represented a policy change. One state official raised the question of potential liabilities for allowing cellphones in schools. CDC officials began debating how to back away from their recommendation of caution, internal emails show. One official proposed saying instead that other countries, "specifically the United Kingdom and Canadian governments", recommended caution. Others suggested pointing to determinations by agencies in Finland, Israel and Austria. Ultimately, though, no other country was mentioned." (Danny Hakim: "At CDC, a Debate Behind Recommendations on Cellphone Risk" New York Times, 1 January 2016; "New

York Times Looks Behind CDC Reversal on Cell Phone Risks" Microwave News, 1 January 2016) "The Environmental Health Trust has just posted 500+ pages of CDC e-mails, presumably the same documents released to the New York Times. EHT reveals that the CDC hired Ken Foster of the University of Pennsylvania as its RF expert. Foster has long downplayed, some would say, dismissed, RF health risks. He was so convinced that the field was a dead end that close to 20 years ago, he published a commentary in Nature advising that RF research be closed down." (Microwave News, 4 January 2016)

Removal of CDC's warning: Foster and Chou's review "funded by the Mobile Manufacturers Forum"

Under Dr Christopher Portier, then director of the CDC's Agency for Toxic Substances and Disease Registry, "the agency began a three-year systematic review of the health risks of cell phone radiation in order to incorporate scientific information from the 2011 determination by the World Health Organization's International Agency for Research on Cancer that cell phone and other wireless radiation is a "possible human carcinogen." CDC composed new text for its fact sheet on cell phones and health in order to incorporate new research. In June 2014, the CDC posted on its website specific advice to reduce exposures, especially regarding children. Immediately afterwards, "the CDC hired as a scientific consultant Kenneth Foster, PhD, a researcher whose

work is often funded by the wireless industry. According to the internal documents, on June 11th a CDC official states in an email that Dr. Kenneth Foster is a "SME (subject matter expert) we now have on board and... If we want to develop any new fact sheets on non-ionizing radiation matters, his scope of work covers that as well and he can quickly draft them for us." CDC officials then discuss engaging Foster to review the new cell phone fact sheet (p.254). Foster has a long history of close ties with industry—publishing multiple industry funded articles that seem to conclude there is little risk from cell phone and other wireless radiation. For example, a widely publicized review by Foster with CK Chou was funded by the Mobile Manufacturers Forum and concluded that the radiation dose to a child's brain from cell phone use does not differ from adults. However, a recent new paper published in the IEEE exposes glaring inconsistencies and systematic errors in Foster and Chou's review. EHT Senior Medical Advisor Robert Morris, MD PhD, and expert co-authors, document, "what appears to





be a deliberate distortion of the science and a boldfaced effort to downplay potential risks to children using mobile devices,” and take the unusual step of calling for the Foster and Chou paper to be withdrawn from publication. Foster also published several other often cited reviews of research on the health risks of wireless systems, funded by the Wireless Alliance, that minimize the research showing health risks to children. (Chou was Chief EME Scientist for Motorola). Recent research with anatomically correct models indicates that children do absorb more cell phone radiation than adults, contrary to Foster and Chou’s review.” (“CDC Documents Reveal The Minimizing Of Risk To Children” Environmental Health Trust, 5 January 2016)

Role of NCRP: “witness for cell phone industries” “coauthor of controversial Danish study”

“Senior officials at the National Council on Radiation Protection and Measurements pressured the Centers for Disease Control into deleting the cautionary language in August 2014. The NCRP’s ... major focus has always been on ionizing radiation ... NCRP’s intervention has come to light with the release of 518 pages of internal CDC e-mails ... “Changes are truly needed,” Bushberg advised ... The following day, the fact sheet was changed.

The CDC no longer endorsed caution ... Bushberg believes that cell phones are radiation safe ... Bushberg runs a health and medical physics consulting firm in Sacramento, the state capital. He has long served as an expert witness for the cell phone and broadcast industries on the health effects of RF energy ... In one lengthy and controversial case, he testified for broadcasters who wanted to site high-power antennas on Lookout Mountain outside of Denver ... Boice, the NCRP president, has taken his own strong stand against any possibility that cell phone could pose a health risk ... Boice is a co-author of the controversial Danish cohort study, which is purported to show no cancer risk, but its methodology has been criticized as flawed. The NCRP last reviewed the RF health literature and issued exposure guidelines in 1986, 30 years ago.” (Microwave News, 13 January 2016)

Letter to New York Times

Raymond R. Neutra, MD, DrPH, wrote an Open Letter to Mr Hakim at The New York Times, 2 January 2016. Until his retirement in 2007, Dr Neutra was a chief at the Division of Environmental and Occupational Disease Control in the California Department of Public Health (CDPH) and in 1994-2002 he was in charge of the \$7M CDPM’s Electric and Magnetic Fields Program. This asked: “How certain must we be of how much EMF-related disease there is before we move from the status quo to cheap or expensive avoidance of magnetic fields?”

“I am exasperated about four aspects of my public health colleagues’ behavior:

1. The misleading way that some

have characterized the volume and quality of data pertaining to possible hazards. “There is NO evidence of a hazard” really means “The many studies suggesting a hazard do not meet my unstated criteria for entering them into evidence.”

2. Their unhelpful way of characterizing their willingness to certify a causal link between cell phone use and cancer. How would we react to a TV weather reporter who said: “I can’t say for sure that it will rain tomorrow, but I can’t say that it won’t rain either.” What we have come to expect is a statement like: “After considering the evidence, we certify that there is a 40% chance of rain tomorrow.”

3. The unspoken assumption that the government can only share causal judgments with the public if it is absolutely certain. Some parents would take precautionary actions if CDC was 20% sure of a hazard, others would take action only if CDC was 90% certain. They have a right to take informed action. Why is CDC not packaging their judgment in ways that the public can use?

4. CDC’s lack of transparency in revealing the stakeholders who complained about their first statement and their reasoning in rephrasing it.”



ELECTROSENSITIVITY STORIES



Fits and fatigue from an electrical substation

Margaret Kiernan, 49, suffers fits and fatigue. She has to use a wheelchair because of 'radiation poisoning' from an electrical substation 20 yards from her home in Crawley, West Sussex ("Woman who suffers fits and fatigue claims electrical substation 20 yards from her home has given her 'radiation poisoning'", Daily Mail, 28 October 2015)

Mother "unable to sleep" and diabetic son in danger

"Many people who are affected by smart meters get insomnia. But a 16-year-old diabetic boy was sleeping just fine, even though a smart meter had been installed on his bedroom wall. However, smart meters can be silent killers. Drew had had stable blood sugar levels since his diagnosis two years earlier. In July 2012, a smart meter was put on his home. Neither he nor his mother knew this. His mom, Leslie, was suddenly unable to sleep but didn't know why. In late August, after telling friends about her unremitting insomnia, someone asked her if a smart meter had been put on her home. "What's a smart meter?" she asked. She discovered the advanced meter, and, after calling DTE [a utility company in Detroit, Michigan], learned it had been installed the day she became unable to sleep. Meanwhile, her son was sleeping just fine. But smart meters can be silent killers. Four months after the meter was put on his home, Drew went to the endocrinologist for his usual check-up. The doctor told him his blood-sugar levels (A1c) had shot into the danger zone. (Smart Meter Education Network)

"She was sick only when the mirror wasn't between her and the meter"

"Well, I was not a believer. Now I am. They put a smart meter on my house. It is on the exterior wall of my daughter's bedroom. We always had a mirror on that wall. My wife re-arranged her room and the head of her bed was in a straight line where the meter is on the outside. My wife moved the mirror by over a foot. All of a sudden my daughter started having nose bleeds at night and her eyes hurt. I thought she was just sick. My wife re-arranged her room and moved her bed in line with the mirror. Did not think anything about it. My daughter stopped having issues. My wife rearranged her room again and moved her bed to the wall where the meter is on. She had a nose bleed, head aches, her eyes hurt and she couldn't sleep. I went through this room. No poisons, no chemicals, nothing new. I read this article and it hit me. My good friend is a smart meter hater and he told me this would happen. So I looked into it - frequency and distance. My daughter's head was within 10 feet and she was sick only when the mirror wasn't between her and the meter." (Troy, Mike Holt's Enterprises, posted 11 November 2015)



"There's nowhere to go"

"One afternoon in 1993, Mark Donohue laid down for a nap and woke up in crippling pain. His head throbbed, his heart raced, his fatigue was bone-crushing. He figured whatever was wrong with him would eventually pass. Twenty-two years later, Donohue's life remains one of constant agony.

At first, Donohue suffered endlessly, powerlessly. "Imagine when you have the flu, a really bad flu," he said. "I'm not talking about a cold. You're sick in bed. You're freezing, you hurt all over, and you

have to figure some complicated situation out. Your brain doesn't work. It shuts down." Doctor after doctor suggested a litany of possible diagnoses: chronic fatigue syndrome, fibromyalgia, Lyme disease. Nothing helped. All he could do was track what caused his pain. The list grew: perfumes, soaps, fresh paint, newly laid carpet, pesticides, even an air freshener plugged into his auto mechanic's bathroom. Within two years, he moved 16 times, each relocation an act of hope. By the time he found a home where he could live without pain, he'd lost his job. He was effectively disabled. "I thought I had it bad back then," Donohue reflected. "But I didn't realize just how good I had it."

About a year and a half ago, his illness evolved. The same things that had sent him into a downward spiral for decades were still there, but something else began affecting his health — the electromagnetic signals upon which virtually all modern technology is built. From cellphones to WiFi, most consumer technology rests on an invisible foundation of electrical signals wafting through the air. This energy is destroying his life. A student at the University of Washington, with degrees in electronics, broadcasting, and telecommunications already under his belt, Donohue has been teaching himself chemistry, biochemistry, anatomy, and physiology through independent studies with professors, looking for insight into the neuro-immune disorders plaguing him. The school has been a refuge for him, a place he can feel productive, but the proliferation of WiFi may force him out. "You can always get away from the crowds of people and all their loud noise, smells, and energy. It's a pain in the ass, but you can do it. I've been doing it for years," he said. "When I became sensitive [to EM radiation], there's nowhere to go. You can't get away from it... and it's growing and spreading. And now I seem to have a constant, pounding, stabbing headache with a God-awful tingling in my mouth."

I interviewed Donohue over the phone. I asked him about his life and his illness, about the years of research into his condition he's done at the University of Washington. I asked him about his hopes for the future and how those hopes have been shattered, rebuilt, and shattered again. In a way, our talk seemed cathartic. Living with

EHS is profoundly isolating, and I think Donohue enjoyed the connection. But he paid for it. Using a cellphone is difficult for Donohue. Signals from the device give him a headache, sending his brain into a funk. He's developed a system to cope. He uses a headset to keep the phone a few feet away, creating enough of a buffer for the radiation to dissipate. Even so, Donohue was struck with a bout of extreme pain for a half hour after we hung up.

Donohue warned me ahead of time he has good days and bad days with the phone. I think he knew what the consequences would be for sharing his story with me from halfway across the country. Like many others with his condition, Donohue is marginalized by the powerful technologies you're using to read this article right now. That's likely why he felt it was important to take the risk. Donohue has tried everything from sleeping with a grounding strap around his wrist to taking magnesium supplements that supposedly block calcium channels inside of his cells. Discussion about the merits of these remedies is rampant on online forums for people with EHS. Ironically, the need to access these virtual spaces through a computer makes these connections physically difficult for many with EHS. Nevertheless, the Internet is an essential tool for those with this condition. They go online trade tips and tricks, talking about what works for them and what's pure quackery. However, there's only one surefire cure for EHS: avoiding exposure entirely. In 2015, that's nearly impossible." (Aaron Sankin: "Living life cursed by technology" The Kernel Magazine, 26 July 2015)



ES-UK Leaflet

It's an excellent introduction to what ES is, with notes on its symptoms and causes, updated in September 2013.

Give it to your relatives and friends, or anyone interested.



Please send contributions for the ES-UK Newsletter to:
Michael Bevington, BM Box ES-UK, London, WC1N 3XX
or email: michael@es-uk.info

Trustees

Michael Bevington (chair)

Sarah Dacre

Brian Stein CBE

Dr Andrew Tresidder

Phil Watts

Medical Advisers

Dr Stephen Brooke

Dr Erica Mallery-Blythe

Scientific Advisers

Dr Andrew Goldsworthy

Dr Magda Havas

Professor Denis Henshaw

Professor Olle Johansson

Aims of ES-UK

1. To help people suffering from electro-sensitivity

2. To educate the public about electro-sensitivity and related areas

Support ES-UK

A donation of £15 per year, or whatever you can afford, helps with the running costs of ES-UK.

Cheques, payable to ES-UK, should be sent to The Treasurer, BM Box ES-UK, London, WC1N 3XX, from whom you can obtain Standing Order, Direct Debit and Gift Aid declaration forms.

Newsletter

Thanks to Gordon Flavell for typesetting and use of photographs © and to Brian Stein for printing and distribution.

Donations

Donations should be sent to the BM Box, London.



for all people sensitised by electro-magnetic fields and radiation

ElectroSensitivity UK

can be contacted at the following postal address or phone number:

**BM Box ES-UK,
London,
WC1N 3XX**

Telephone: 0845 643 9748

Alternatively, if you have access to email, the charity can be contacted on the following email and web address

enquirers@es-uk.info

www.es-uk.info