

UK courts recognise 'EHS'

See inside for the UK's first legal recognition of 'EHS' for Employment and Support Allowance, granted to an applicant with EHS in an appeal against the Secretary of State for Work and Pensions.

Public Health England and real EHS: not 'fit for purpose'?

If PHE were 'fit for purpose' on real EHS, all UK doctors and psychiatrists would be up-to-date with current majority research on real EHS, and people with real EHS would not suffer inequality. The weight of scientific evidence now clearly shows the harm caused by low-level wireless radiation, and that real EHS is not a Nocebo effect and is different from psychological Electrophobia, although some PHE or DH spokespeople still make this confusion. The courts in the UK now show understanding of EHS; see inside for how PHE still lags behind on the legal and science-based evidence.

Kindergartens' radiation exceeds EHS safety limits

A new study shows that the incessant growth of wireless usage means that radiation in even kindergartens is now above the international EHS safety limit.

'Thermoregulation': the thermalist fringe's last stand?

Read inside about how the minority fringe clique of thermalists are now clinging to (non-thermal!) 'thermoregulation' in a vain attempt to defend their ICNIRP heating limits.

"Public Health England discriminating against ill electrosensitive people"

Hilary Boughton accuses the Department of Health and its Public Health England of discriminating against people with EHS in her new YouTube video. She explains how she suffers from electrosensitivity, brought on by phone masts and other devices. She states that PHE knows about the condition but is "putting out lies". She says that if the government is scared about losing money by admitting the facts, PHE's refusal to accept the evidence means that she no longer pays tax, since her EHS prevents her from working, and instead she costs the NHS many thousands of pounds. (YouTube, October 2016, 7 minutes: www.youtube.com/watch?v=T3SzisRkOMA) Addition posted on 13 October: "The reply from Public Health England: "We are very sorry to hear about the medical problems that you are experiencing and urge that you continue to discuss them with your NHS GP who can arrange appropriate hospital referrals for further advice if needed..." [PHE also refers to webpages dated 2012-13, based on its much-criticised AGNIR 2012 Report, using studies of 2003-10. - Ed.] Comment by Hilary: "Since when was my GP responsible for protecting me from hazardous radiation that makes me ill? That is the job of PHE!"

"Active Denial"

See Barrie Trower's article. It's up to you to take action, if you can!

'Not-spots': essential for health

See inside for how the government needs to maintain 'not-spots', with no mobile or wireless coverage, for health reasons. This is essential both for trees and for humans.

Trees show non-thermal damage: phone masts "must be stopped"

Trees, as well as people and animals, are electrosensitive. A new study concludes: "The occurrence of unilateral damage is the most important fact in our study and an important argument for a causal relationship with RF-EMF, as it supplies evidence for non-thermal RF-EMF effects. This constitutes a danger for trees worldwide. The further deployment of phone masts has to be stopped." (Waldmann-Selsam C et al, Sci Total Envir., 2016)

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ES Social 15th October 2016, East Sussex

The Annual ES Social took place on Saturday, 15th October 2016, at a farm in East Sussex close to Bewl Water with a beautiful lakeside aspect and no through traffic.

The programme started on Friday night when several arrived to camp out in tents and campervans. Many more arrived on Saturday and the camp was active with many making new friends and chatting through challenges and how to cope with ES symptoms.

ES-UK Trustee, Sarah Dacre, organises the annual Social to give many who may feel alone with the condition to meet new friends in a relaxed setting. Many have expressed the need for friendship and a wider social network. One or two of the participants from earlier Socials attended with new partners sharing the challenge and several openly shared their desire to meet someone to share their future with.

The weather was mild and the group sat around a central wood fire chatting at the camp site. Lunch was enjoyed at a local pub and the group sat out in the autumn sun enjoying various hot meals. As the October sun set the group lit a fire in the enclosed area and warmed themselves during the evening chatting and making hot drinks. Several remained on site to camp overnight.

There were several people who would like to organise a Yorkshire based group. If you would like to take responsibility for organising a northern Social please respond to media@es-uk.info or post a note to the BM Box. You will need a safe site with suitable facilities, well away from urban sprawl, with camping or other suitable accommodation. Your local farmer may have a site, which he would rent out for the weekend

with woodland and space for parking away from the camping and meeting area. You will need to ensure that the site is pylon free, WiMax and Phone mast free and it is relatively simple to check out the site on Google to ensure freedom from any RF and ELF emissions.

What we have proven in East Sussex, is that people will travel several hours to reach the destination to meet and socialise and discuss what has helped them to live a fulfilling life.

Other meetings

Peter Gane reports on recent meetings. He is keen to encourage similar events and can be contacted on 01935 423002. Inspired by the Compton Dundon Conference last year, Paul organised his own evening at the Quaker Meeting House, Taunton, on 17 October 2016. Dr Andrew Tresidder addressed over 40 very interested people, most of whom were not ES.

On 22 October 2016 Susi invited nine speakers to Totnes, covering environmental and well-being issues. Peter gave a short talk on Electro-Sensitivity and the effects of modern technologies. There was also substantial interest in the information table he ran. Attendance was over 40, with many considering themselves to be ES. This event also gave the opportunity of broaching this subject with those active in other fields of environmental protection and both human and ecological well-being.

"I have to get this information out"

Peter Gane writes: I often think of Barrie Trower's response to my question: "Why aren't you doing the things most retired people do?" His reply was: "With the knowledge that I have, my conscience would not allow me to do that. I have to get this information out for as long

as I possibly can." I believe this is an inspiration to us all.



During the course of my work as a craft jeweller, I take the opportunity to promote ES-UK and generally raise awareness, as at a Dorset steam fair. From this I have met so many interested and clearly electro-sensitive people, many of whom are very appreciative of our conversation and awareness information to take away.

Disability: adjustments required unless job advertised as unsuitable

The updated ES-UK Disability letter is available on the website. For details, see below under "EHS disability and equality rights". It is important that all people with EHS realise that their disability is now recognised under UK law and regulations, and that UK law and regulations require employers to make reasonable adjustments for people with EHS unless the employer has advertised the job as having the specific requirement of being unsuited to people disabled by EHS.

The letter also refers to recent cases in the UK legally recognizing EHS for ESA and for work exemptions for JSA.

ES-UK updated Select Studies

The list of Select Studies, giving medical and scientific studies relevant to EHS, available on the ES-UK website, has been updated to October 2016.

PHSO Complaint

The Group Complaint (pro-forma template) to the Parliamentary and Health Services Ombudsman (UK Organisations in Association with the International EMF

Alliance) has now been replaced with an updated reference number, EN-234493. The complaint started in March-July 2013. All you need do after completing the updated template from the SSITA website is to ask your MP to mark it FAO Terry Toomey via Jonathan Nashed and to then put the Millbank address as on the back page of the form. Diana at SSITA can provide additional help. You should receive an acknowledgement within 2-3 weeks with an individual reference number for your case. The PSHO's website says that it investigates about 4,000 cases per year. It completes most in 3-6 months and aims to complete 98% within a year.

Thanks!

As always, thanks to our growing number of supporters publicising the facts about real



EHS and how

it affects their lives. Thank you to all those who take the trouble to write to your MPs, MEPs, councillors, doctors, schools, shops, transport services, etc, giving information about the problems caused by exposure to EM energy. Some doctors, psychologists and politicians have yet to become aware of this medical intolerance, but the news is getting out and more politicians are beginning to see their responsibilities for protecting the general public, even if PHE has yet to give a proper evidence-based lead, recognising the well established and convincing evidence for the existence of real physical EHS.

Thank you also to our trustees, advisers and some people not directly connected with the charity who have been able to make significant differences in several severe EHS cases where some doctors and psychiatrists are still unaware of the majority current medical research and thinking on EHS.

Request for help about moving to continental Europe

Dear Reader,
Information Request.

I am sensitive to EMFs from various appliances, including some of my neighbours', and also radio frequency radiation. I have not been able to work in any capacity for almost nine years, and live in a terrace property on the outskirts of a city, basing myself in my kitchen during the day, as this is the least problematic place to sit. Consequently, for some years now, I have been thinking about a move to continental Europe because, with a very small budget, I could afford to buy there a detached property with an acre or two of land, something impossible for me to achieve here.

Certain affairs have finally been sorted and now I'm ready to plan my move. Unfortunately, the Brexit vote is forcing me to jump sooner rather than later, and the vote could prove detrimental to my plans. As it stands, now I would be eligible to access the health care of a host country. This may well change after Brexit and taking up private health care would be unaffordable.

France being so close would be easier to access and offers some affordable property. However I believe the tax system and contributions towards healthcare top-up insurance would make France unaffordable. The cost of living in Spain and property prices away from the costas are more affordable. Yet I'm wary of buying in Spain should a mast subsequently be erected and prove problematic, and I would be unable to sell my property and move on. Moving to a warmer climate would be more pleasurable for me and would allow me a more outdoor life style, preferable because of my poor toleration of electric lights. Italy has been my preferred choice, due to property prices in Puglia in the south of Abruzzo. However, this is the furthest destination and more problematic for me to reach. A friend of a friend contacted an electrosensitivity organisation for me in Italy and was told that Italy was no place for electrosensitives. I realise that there is no magic destination, but I didn't think that Italy was worse than in the UK.

I have accepted that my future will continue to be socially isolated and, for me, this is easier to deal with if I could live in a home like other non-ES people, and relax on my sofa at last as opposed to sitting on a kitchen stool all day long. Right now I'm totally overwhelmed and frustrated. I don't know what to do for the best, and obviously don't want to jump out of the frying pan into the fire. I can't access all the necessary information or conduct a thorough property search because I react severely to computers. Nor do I know how I am going to travel to view properties.

Hence I am writing to ask if anyone has any advice, information, or experiences that they would share with me, to help me make a more informed decision about where might be the best place to move to. I would be really very grateful. I would like to put my house on the market after Christmas. Hopefully by then I will have a clearer picture of destination and will have to keep my fingers crossed that after Brexit my host country will allow me to stay in the same capacity as prior to Brexit.

Please write to: Jo, care of ES-UK, BM Box ES-UK, London, WC1N 3XX, or leave a message on the ES-UK helpline (0845 643 9748), or email enquirers@es-uk.info

Articles and information please!

Thank you to those who submit articles or information for the Newsletters. More would be welcome, especially on how you try to solve the practical problems of living in a world increasingly polluted with man-made electromagnetic energy.

Donations to ES-UK

Many thanks to those who make donations, large and small. They are all appreciated and vital to the charity's ongoing work helping people with ES and spreading information. There is a form for gifts near the back of the Newsletter or you can give via the website.



EHS DISABILITY AND EQUALITY RIGHTS

ESA awarded for "EHS"

In 2016 a Judge in a First-Tier Tribunal of the Social Entitlement Chamber allowed an appeal against the Respondent, the Secretary of State for Work and Pensions. This may be the first acceptance of EHS as qualifying for ESA in the UK legal system.

The Decision Notice stated:

1. The appeal is allowed.
2. The decision made by the Secretary of State on [date] is set aside.
3. [The appellant - name withheld] is entitled to Employment and Support Allowance ("ESA") with the support component.
4. This is because insufficient points were scored to meet the threshold for the Work Capability Assessment, but Regulation 29 of the ESA Regulations 2008 applied.
5. No descriptor from Schedule 3 of the ESA Regulations 2008 satisfied but Regulation 35 of the ESA Regulations 2008 applied.

[The appellant] suffers from long term anxiety [the Judge's terminology for EHS] but does not satisfy any Schedule 2 or Schedule 3 descriptors. However if he were found capable of work or work related activities this would result in a substantial risk of exacerbating his mental health conditions [the Judge's terminology for EHS]. In reaching its decision, the Tribunal placed particular reliance upon the medical evidence and the evidence of the appellant and his brother."

The appellant has subsequently informed ES-UK that the allowance of this appeal is particularly significant in showing that the regulations apply to EHS, albeit under another descriptor, and especially with regard to Regulation 29 of the ESA Regulations 2008 applying to the case. This is where insufficient points are scored to reach the threshold of the Work Capability Assessment and a Tribunal must follow, together with Regulation 35, that, if someone says that they are not well enough, and considers themselves being incapable of work, then the 2008 law is applied. The Tribunal Judge was already

aware of ES and EHS and its complications and the doctor in attendance was also sympathetic. After this award it took the Department of Work and Pensions two months to process the claim and the appellant has been informed that the claim will be re-assessed after 12 months, although the appellant feels that this is not usually the case when the Support Component is included. The appellant was given the opportunity to explain before the Judge how EHS affected daily life and this was respected by the Tribunal.

ES-UK updated Disability Letter

The letter on the website, for use by all people with EHS facing disability problems, has been updated to November 2016.

It now includes:

- The 2016 EMF Regulations. These specify the duty of employers to take action if notified of employees at 'particular risk' from non-thermal radiation, such as pregnant women and people especially intolerant of EMFs.
- The Health & Safety At Work Act 1974.
- The Equality Act 2010. This requires employers to make reasonable provision for people with EHS, unless they have advertised the job as specifically limited to people without a disability like EHS.
- The Flexible Working Regulations 2014. These allow employees to ask for flexible working arrangements to suit their needs.
- A link to the US Department of Labor's Accommodations for People with Electrical Sensitivity.
- References to legal cases in the UK recognizing people disabled by EHS as qualifying for Employment and Support Allowance and for specific work exemptions for Job Seekers Allowance.
- Some of the international recognition of real EHS. If an employer has not advertised a job as unsuitable for EHS applicants, it appears expected under the Equality Act 2010 that the employer will make sufficient adjustments for a person disabled by EHS to take up the job.

The toxic environment is 'sick', not the EHS person

Comments from Professor Olle Johansson, posted on 29 August 2016:

"Make sure to connect to all the UN disability texts, realize that it's the whole environment that must be accessibility-adapted, and do not forget that such accessibility measures actually are 100% positive for everyone to share! People with functional impairments should have full access to the entire society, not just a small part of it. The human rights for all of us, regardless of functional impairment, is that we should live an equal life in a society based on equality. It's that simple.

The EHS are not seen as patients, they do not have an overriding medical diagnosis, but the 'patient' is only the environment - inferior and potentially toxic. This does not mean that a subjective symptom of a functionally impaired person cannot be treated by a physician, as well as the EHS person getting sick-leave from their workplace as well as economic compensation. Already in the year 2000 such symptoms were identified in the International Code of

Diagnoses, version 10 (ICD-10; R68.8/now W90), and have been since.

Unfortunately, some medical doctors and a few scientists still instead want EHS to be a medical/psychiatric diagnosis, i.e. with patients with an undefined disease syndrome, the latter instead being the focus of medical/psychiatric treatments (thus, no automatic accessibility measures, including shielding of the environment). But the underlying cause still remains only the environment."



UK 'NOT-SPOTS': ESSENTIAL FOR HEALTH

Government obligations to keep 'Not-spot' healthy areas

The current proposal by the government to remove 'not-spots' runs counter to other government obligations to safeguard the health of the population. How does the government reconcile its plan to saturate the whole of the UK in a known cancer and neurological toxin from mobile phone masts with the following demands?

- (a) ICNIRP's 2002 demands for lower exposure rates for vulnerable people and sensitive individuals;
- (b) The European Parliament's and European Council's votes for wireless-free areas;
- (c) EUROPAEM 2016 limits for sensitive people such as 0.006 V/m or 0.1 uW/m² for wireless radiation;
- (d) The UK's new EMF regulations for people at particular risk from low level exposure such as from WiFi, Bluetooth, mobile phones and mobile phone masts;
- (e) IARC's 2B cancer classification for all wireless radiation, now confirmed by the US's NTP definitive studies;
- (f) The majority scientific viewpoint since 2008 accepting non-thermal adverse effects.

Instead, the government should be working towards removing phone mast pollution, first in defined areas as already required by ICNIRP and European authorities for people intolerant of this radiation, and secondly across the whole country to preserve trees and wild life, as well as humans. Health for all should take precedence over some people's convenience or pleasure.

Fine proposed for mobile phone "not spots"

The government pledged to fine companies millions of pounds if they fail to act over mobile phone "not spots". Ministers are determined to hand Ofcom, the communications regulator, the power to order financial penalties to ensure providers are "held to account" over their coverage. Operators like Vodafone and O2 who promised to provide signal to 90% of the UK by December 2017 could be punished if they fail to hit the target. The proposal is buried in the Digital Economy Bill. Grant Shapps, the former Tory chairman who heads up the British Infrastructure Group [BIG] of MPs, said "If this new move isn't a success then more radical solutions will be required." (Ben Riley-Smith: "The end of mobile phone 'not spots'? Ministers propose new power to fine companies millions" Daily Telegraph, 16 September 2016)

ENVIRONMENTAL TOXINS

Cancer increase in children

Modern life is killing children with the number of youngsters diagnosed with cancer rising 40% in the past 16 years because of air pollution, pesticides, poor diets and radiation, scientists have warned. The charity Children with Cancer UK found that there are now 1,300 more cancer cases a year compared with 1998. The rise is most apparent in teenagers and young adults aged 15-24, where the incident rate has risen from around 10 cases in 100,000 to nearly 16. Researchers say that although some of the rise can be explained by improvements in cancer diagnoses and more screening, the majority is probably caused by environmental factors. Dr

Denis Henshaw, Professor of Human Radiation Effects at Bristol University, said air pollution was by far the biggest culprit, accounting for around 40% of the rise, but other elements of modern lifestyles are also to blame.

Among these are obesity, pesticides and solvents inhaled during pregnancy, circadian rhythm disruption through too much bright light at night, radiation from x-rays and CT scans, smoking during and after pregnancy, magnetic fields from power lines, gadgets in homes, and potentially, radiation from mobile phones. (Sarah Knapton: "Modern life is killing our children: Cancer rate in young people up 40 per cent in 16 years" Daily Telegraph, 3 September 2016)



Electromagnetic stress can promote cancers

In 2015 it was confirmed that both ELF and RF electromagnetic exposure, as from power-lines, WiFi and mobile phones, promote tumours (thus requiring their classification as class 2A human carcinogens). The EM exposure which causes this tumour promotion is one form of the stress on the human body's sympathetic nervous system. This both contributes to the development of cancer and reduces the effectiveness of treatments against cancer.

It is well known that EM radiation causes stress and stress causes inflammation, a hallmark of most diseases, from obesity and diabetes to heart disease and cancer. Since 1908 stress has been noted as the top cause of cancer (Dr Eli Jones: "Cancer: Its Causes, Symptoms and Treatment", 1908). A 2016 study on mice found that "chronic stress induces signalling from the sympathetic nervous system (SNS) and drives cancer progression ... Here we show that chronic stress restructures lymphatic networks within and around tumours to provide pathways for tumour cell escape" (Le CP et al, Nat Commun. 2016). Cancer cells typically spread to other areas of the body either via the blood vessels, or through the lymphatic system; stress hormones affect both of these pathways. The mechanism is related to how adrenaline activates the sympathetic nervous system (SNS) to increase the rate of lymph formation and change the lymph vessels, allowing cancer cells to migrate faster into other organs. The role of the SNS for metastasis was discovered in 2010: "Metastasis to distant tissues is the chief driver of breast cancer-related mortality ... Stress-induced neuroendocrine activation had a negligible effect on growth of the primary tumor but induced a 30-fold increase in metastasis to distant tissues including the lymph nodes and lung ... These findings identify activation of the sympathetic nervous system as a novel neural regulator of breast cancer metastasis" (Sloan EK et al, Cancer Res. 2010).

The body's neuroendocrine response (the release of hormones into the blood when stimulated by the nervous system) can directly alter cell processes which help protect against cancer, such as DNA repair and the regulation of cell growth. The stress hormone norepinephrine can increase the growth of cancer via two compounds (MMP-2, MMP-9) which break down the tissue around the tumour cells allowing the cells to move into the bloodstream (Yang EV et al, Cancer Res. 2006). Epinephrine, another stress hormone, also causes changes in certain cancer cells, specifically prostate and breast cancer, making them resistant to apoptosis (cell death) (Sastry KS et al, J Biol Chem. 2007). (Dr Mercola: "How Chronic Stress Promotes Spread of Cancer, and What You Can Do About It", 24 March 2016)



CONDITIONED AND TREATED WATER

Water has many properties, some only just being discovered. Particularly interesting are the biological effects of electrolysing water, which can help reduce oxidative stress, and conditioning water with electromagnetic waves. Water conditioned in this way appears able to retain and transmit the information signals from bacteria and viruses, and in its own right reduce oxidative stress.

The Prince of Wales: scientific evidence

Prince Charles has proposed a solution to the growing crisis of antibiotic over-use in animals and humans, telling an international gathering of scientists and government officials in London that he treats his own cows and sheep with homeopathy. In front of the government's chief medical officer, Dame Sally Davies, who once said homeopathy in humans was "rubbish", the prince explained: "It was one of the reasons I converted my farming operation to an organic – or agro-ecological – system over 30 years ago and why we have been successfully using homeopathic – yes, homeopathic – treatments for my cattle and sheep as part of a programme to reduce the use of antibiotics." There are 500 farmers trained in homeopathy and 38 homeopathic vets, according to the Department for Environment, Food and Rural Affairs. (Sarah Boseley: "Prince Charles: I use homeopathy in animals to cut antibiotic use" Guardian, 12 May 2016)



Conditioned and treated water could save the NHS a fortune?

The Prince of Wales may be ahead of the game in using homeopathy at Highgrove, the Editor comments. Recent research in Thailand shows how physically conditioned water using low-frequency EM waves has biological effects (Yamabhai M et al, Homeopathy, 2014). This supports the Nobel Laureate Luc Montagnier's 2009 discovery of DNA information traces from bacteria and viruses in similarly conditioned water (Montagnier L et al, Interdiscip Sci., 2009; Montagnier L et al, Electromagn Biol Med., 2015). This discovery, "if confirmed, would shake the foundations of several fields of science. 'If the results are correct,' says theoretical chemist Jeff Reimers of the University of Sydney, Australia, 'these would be the most significant experiments performed in the past 90 years, demanding re-evaluation of the whole conceptual framework of modern chemistry.'" (Andy Coghlan: "Scorn over claim of teleported DNA" New Scientist, 12 January 2011).

In addition, treated water, as in electrolysed reduced water or ionised water, has been shown to reduce human oxidative stress, a feature of many diseases (Shirata S et al, Biochem Biophys Res Commun, 1997; Franceschelli S et al, Int J Mol Sci, 2016). Such water has a high oxidation reduction potential with its high concentration of antioxidant hydroxyl ions, like most fresh vegetables and fruits, thus neutralising free radicals. Treated water also has micro-clusters, as in water spray from a water-fall or water struck by lightning, and, thirdly, higher concentrations of alkaline minerals, meaning a higher pH, like some mineral waters. Similar inexpensive conditioning and treatments might save the NHS a fortune.

ES NEWS

Holby City: Danny with EHS

BBC One's hospital drama, Holby City (series 18, episode 43, broadcast on 2 August 2016) featured Danny, a broadband engineer suffering numerous unexplained symptoms. He says he sleeps in a car as the only place to escape the symptoms and imagines he has a hidden brain tumour. The doctors can find nothing wrong with him but eventually someone tries him in a room with reduced WiFi and he immediately feels much better. (YouTube video, 9 minutes: "Holby City (EHS) Electromagnetic Hypersensitivity": www.youtube.com/watch?v=4isNRKISDxU)



Medical Mysteries

At the time of going to press, Channel 5 was due to screen Medical Mysteries on 22 November, including a case of EHS.

ES proved

Expert Report, by Prof Andrew A Marino, before the Pennsylvania Utility Commission (8 August 2016, 81 pages): “Scientific evidence indicates that the neurological syndrome of electromagnetic hypersensitivity exists. There is a reasonable basis to believe that the symptomatology of the Complainants and its relation to smart-meter electromagnetic energy is factual.” (p.1)

“Human beings have the sensory capability to detect man-made electromagnetic energy of the type present in the environment.” (p.6)

“EHS is a physiological condition in which the affected person experiences musculoskeletal, immunological, and/or neurological symptoms that flare or intensify upon exposure to man-made electromagnetic energy in the environment.” (p.17)

“There are many reports in the literature in which investigators have listed or classified the symptoms [list of 40 studies]. Essentially, the list consists of all the undesirable somatic reactions that human beings can experience. The complaint that people who suffer from EHS have in common is that they feel discomforted and/or unwell. They exhibit a general syndrome of just being sick, as opposed to exhibiting symptoms that are pathogenomic for a particular disease.” (p.17)

Spanish High Court accepts EHS as permanent disability

A recent ruling by the High Court of Madrid, No. 588/2016 dated 6 July 2016 (rapporteur Mr. Miguel Moreiras Cabellero), has recognized for the first time in Spain a situation of total permanent disability for the exercise of the profession of a telecommunications engineer suffering from “electrosensitivity syndrome (EHS)”. This prevents him from working in environments with EM fields. The engineer suffering from this syndrome had appealed the sentence in supplication Instance Labour Court No 11 of Madrid, which dismissed his petition and acquitted the National Institute of Social Security (INSS), which had denied the economic benefit. Now the Supreme Court of Madrid has given reason: his illness prevents him from working as an engineer in telecommunications, but believes that he can work in environments that do not present electromagnetic pollution. But, we wonder, what office currently has no wifi? (Patricia Esteban “Spain: High Court of Madrid Ruling Recognizes “Electrosensitivity” as Grounds for Total Permanent Disability” noticias.juridicas.com, 3 August 2016; trans Towards Better Health, 4 August 2016)

French draft report on the difference between Electrosensitivity and Electrophobia: “the nocebo effect is not the cause of EHS symptoms”

The French Agency for Food, Environmental and Occupational Health & Safety (ANSES) organised a public consultation for its report on electromagnetic hypersensitivity until 30 September 2016. The draft report summarized about 300 studies and testimonials from physicians, scientists, citizens and politicians. It notably stated that “The contribution of Dieudonné (2016) is important because it shows that in most cases, the nocebo effect [due to a fear of the waves] is not the cause of symptoms experienced by EHS subjects, but it does not exclude that this effect plays a role in the persistence of symptoms.” (André Fauteux, La Maison du 21e siècle Magazine, 24 August 2016). [The chair of trustees made a submission on behalf of ES-UK.]



More toxic pollution in the high street

“Scanners are to be placed outside stores from Pret a Manger to Aldi to track people through their smartphone wifi signals.” One thousand of sensors in 81 towns will be used to measure the numbers passing or entering, known as footfall, using open WiFi connections. (Sean Poulter: “Shops set to spy on us by tracking our smartphones: Scanners will collect information on how many people pass in bid to try and revive the High Street” Daily Mail, 3 July 2016)

5G: Wireless pollution ‘out of control’

See the excellent article on the perils for everyone, both people with and without EHS, as electropollutions starts to flood over the UK. Excerpts: “Many American health activists, and cautioning scientists, are aghast. Dr Joel Moskowitz, director of community health studies at the University of California, warns “precaution is warranted before 5G is unleashed on the world”. Former government physicist Dr Ron Powell points out the plans “would irradiate everyone, including the most vulnerable to harm from radiofrequency radiation: pregnant women, unborn children, young children...the elderly, the disabled, and the chronically ill... It would set a goal of irradiating all environments”. Fracking the air? This drive to mine the electromagnetic spectrum come-what-may has echoes of fracking, and other headlong trends.” (Lynne Wycherley: “Wireless pollution ‘out of control’ as corporate race for 5G gears up” The Ecologist, 27 October 2016)

ES PRACTICAL LIVING



Self Help: some ideas for ES people

Until society becomes more aware of the dangers of man-made electromagnetic pollution, we need to do what we can to help ourselves, writes the editor. Here are some suggestions. There are many more ideas available in books and on the internet if you have access.

This article is not meant to be patronising nor insensitive to the real and horrific circumstances in which many with ES find themselves, including losing a job and home, but something along these lines has been requested. I'm aware that some people are much more badly affected by wireless and electrical technology than others, but over the last ten years I've been grateful to meet and communicate with some wonderful people who have supported and encouraged others as far as they can, despite their own severe restrictions and suffering.

1. Be positive. There are often ways of making things better, however small. Other people respond well to positive and purposeful people, even when they can see the problems we face.

2. Be grateful. Thank especially those who do understand your condition and make changes to help you. And there may be people even more affected by electromagnetic energy and other environmental pollution or illnesses than you.

3. Be confident. At least we know what around us is causing our health problems, whereas many do not. A confident and polite request to turn off mobiles is often heeded (although frequently forgotten subsequently!).

4. Be aware. Life is more than simple materialism, money, jobs or even wireless gadgets. We need to maintain our spiritual and emotional, as well as our material, well-being and happiness, however difficult in a hostile and polluted environment. Many find a faith sustains them amid a tragedy inflicted by fellow humans.

5. Live healthily. The body has amazing powers of healing if allowed. It's often a matter of priorities. So give time to obvious areas of life such as:

(a) Healthy eating, especially having natural foods, vegetables, fruit and water.

(b) Healthy exercise.

(c) Healthy sleep.

6. Relax and enjoy. Take time for family, friends and even strangers (if you can avoid their

radiation devices – it can take repeated reminders), music, reading, art, nature, being outside, pets, creativity and hobbies.

This is difficult when it's almost impossible just to survive, but you may be able to try a new possibility or develop what has worked in the past. Even smiling and humour, if you can manage it, often works wonders, without belittling the constant awfulness of an environmental disability and illness.

7. Help others. There are likely to be others we can help in some ways, even if only by writing letters or landline phone calls. Helping others and being kind gives a positive outlook and a sense of worth, as well as achieving something useful.

8. Have a sense of proportion. Even where escaping society's pollution has taken over most minutes of our day, many other people do not see it like that. And few want to hear too much about it, so we need to take an interest in other people and things too.

9. - And avoid the pollution as best you can! There are numerous books, websites and ideas in these Newsletters about how to shield and protect yourself from man-made electromagnetic energy.

Reducing EM stress and cancer risks from WiFi, masts and mobiles

Liz Barrington recommends seven steps to reduce EM stress and thus the risks of cancers and neurological illnesses (Liz Barrington: "How to Combat the Effects of Electromagnetic Stress on Your Body" Natural Body Healing). This advice is also helpful for people with ES.

- 1) Reduce your exposure to EMFs. Keep away from wireless devices and appliances. The use of cabled equipment is much healthier.
- 2) Review and change your 'sleep' environment. The body's immune resistance is considerably lowered during sleep because it has to rest and repair itself. All metal bed frames and bedsprings should be avoided. Remove electrical appliances and mobile devices away from the head area



especially and preferably out of the bedroom. Pull your bed from wall if the bed is near an electrical outlet. If you have to use one, remove your electric blanket from the bed after it has warmed, or better still use a hot-water bottle. Baby Monitoring Devices must never be used anywhere near the head of the baby.

- 3) Regularly detoxify your body. Specific 'heavy-metal' detoxing is recommended.
- 4) Strengthen your body through a healthier diet and care for your bowels. Eat plenty of fibre and probiotics. Take essential fatty acid supplements. Consider using botanical flower remedies.
- 5) Remove the metal in your mouth, such as amalgam fillings.
- 6) Improve your immune system. Change your diet, your lifestyle, your attitudes and beliefs to healthier ones, so your body becomes stronger. Exercise regularly.
- 7) Get rid of mould and fungus. Watch out for mould on the walls in your home, a give-away that there is radiation within your environment because research shows that 600 times more neurotoxins develop in high EMF areas.



Checking for dirty electricity

"Tune a battery-operated portable radio between stations on an AM waveband.

Hold it near wiring, lights or electric devices. You should "hear" the dirty frequencies as a buzzing sound that disappears as you move the radio away from the source or if you turn off the suspected appliance. The most likely sources in lighting circuits are low energy lamps, including modern fluorescent tubes with electronic ballasts, all compact fluorescent lamps (CFLs), some (but not all) LEDs with built in power supplies and virtually all dimmer switches." (Dr A.Goldsworthy)

NOTES FROM A CANARY

"A few notes from a canary": excerpts from a sermon given on 5 June 2016, anonymous, from Facebook Electrosensitives.

I'm sure we all know how miners used to take a caged canary down into the mine. If the bird became seriously unwell, or died, they knew they had to get out fast, because this signified the presence in the mine of highly dangerous gas. The canary was more sensitive to gas than the miner. The gas, however, was deadly to both. When a distressed canary starts flying at the bars of its cage, you should pay attention. The canary's distress isn't just personal, it's relevant to your safety.

Some of you know that my life has become considerably restricted by a condition called electromagnetic hypersensitivity, or EHS for short.

I'm not a person to give up in the face of difficulties, so when I realised I had this condition I began looking into possible causes and treatments. I have spent months, in fact, intensively reading, watching, discussing, and trying things out... and the more I've learned, the more I have come to realise that folks, we have a problem! Because of my research I know things now I didn't know before and although it's not easy to share them with you, I think I must.

I'm going to start by telling you a little about electromagnetic hypersensitivity. EHS can also be described as radiation sickness, a condition well documented by the military. It occurs when the body becomes overloaded by exposure to electromagnetic fields - EMFs. EMFs are produced by electrical wired and wireless appliances in our everyday environment. Of all these technologies,

the wireless are the most problematic: mobile phones and phone masts, WiFi, cordless phones, smart meters and anything else that communicates wirelessly.

It seems anyone can develop EHS. One major insult to their body, such as having an MRI scan, or a smart meter being fitted in their home, can be enough to trigger the condition. For others, it develops more gradually.

Once you have EHS, exposure to EM fields can give you, for instance, very nasty headaches, vertigo, tinnitus, burning skin, rashes. You can get severe muscle and joint pains; cardiac palpitations and erratic blood pressure. You can suffer overwhelming fatigue and lethargy, sleeplessness, concentration and memory problems, anxiety and depression. And a host of other problems, including fertility problems. These symptoms might be activated by being near, for example, a phone mast, or someone using their mobile phone. They can be set off by WiFi, by household wiring, appliances, lighting or wireless phones, by the engine of a car or its sat nav, by computer screens ... All of these things and more can make someone with EHS ill, sometimes for weeks afterwards.

The consistent medical advice is that if you wish to get better from this condition, and not get worse, you should avoid all such exposure. But that, in today's world, has become almost impossible. The levels of manmade EMFs to which we are regularly exposed in our environment have risen, in the last one hundred years, and largely in the last thirty, a quintillion times - that's 1,000,000,000,000,000 times. This is not an environment in which our bodies have evolved to live and we don't simply adapt to it.

Severe EHS is estimated to affect up to 5% of the population; 5% means 3,250,000 people just in the UK. Many more people are affected less severely. It's true that you don't knowingly meet that many people with EHS. Many don't get out and about much anymore. If those of us with EHS can possibly avoid it, we don't go to the shops, the library or places of entertainment. We don't use public transport or planes. We don't go to hospitals or the doctor's.



We don't visit our friends. Because all these things make us ill. So we mostly stay at home, in houses we have done our best to shield, expensively, against the radiation from our neighbourhood. Many of us can no longer find anywhere safe to work, to live, or even to go for a walk.

Another reason you don't hear much about EHS people is that it takes courage to tell people you are EHS, because a lot of people, including, sad to say, many GPs, assume it's rubbish and we are making it up. "I don't react to electricity, so how can you?" Which is like saying "I'm not having an asthma attack, so you can't be."

Actually, some very reputable and high profile people admit to being EHS, for instance Gro Harlem Brundtland, three times Prime Minister of Norway and for five years Director-General of the World Health Organisation. And Nokia's former Technology Chief, Matti Niemelä, who was involved in the development the world's first mobile phones, fell seriously ill himself from mobile-phone microwave radiation, and he says "I'm scared to talk about this in public, because I do not want to be labelled as crazy."

Why should he be thought crazy? Just as what the canaries used to tell the miners can now also be shown by a gas detecting machine, so, what the body of the EHS person is telling us is also shown by science. Professor Olle Johanssen, a leading researcher in this field, said recently that if you stacked up all the scientific papers showing that EMFs interfere with the normal biological functioning of humans, animals and plants, the pile would be 5 feet high. And that pile is growing. For instance, in May 2016 the US Government's highly regarded National Toxicology Program released the first results from a \$25 million research program which

confirmed that mobile phone radiation can cause brain cancer in rats. Some scientists are describing the results as “a game changer.” A much larger, but uncontrolled, experiment is being conducted, not on rats, but on us.

Out of interest, who among you had heard about the National Toxicology Program results? The telecoms industry is hugely wealthy and their wealth buys them powerful lobbying and a lot of science. Their PR machine suppresses or discredits what they don't want us to know. And they don't want you to know that the technology with which they are swamping the world is deadly.

The effects of EMF exposure are cumulative. Feeling like they are not affecting you now doesn't mean they won't affect you when the exposure has built up over several years. Interestingly, in one study scientists were able to confirm that the same functional changes they found in the bodies of electromagnetically sensitive people who reported feeling unwell when exposed to EMFs were happening in 50% of those who didn't consider themselves EHS and did not report feeling anything. Not feeling it doesn't mean it's not happening to you. I'm sure we all know of someone who had a heart attack without noticing beforehand that anything was wrong.



Children are the most vulnerable to damage. And with girls, who are born already bearing within their body their entire lifetime's supply of ova, we put at risk not only their own bodies but, with those ova, the DNA of future generations. And any damage you sustain can be passed on to your children, as is evidenced by the mice which became irreversibly sterile in five generations. The elderly and anyone already sick are also more at risk.

And not only humans are affected. It is common knowledge that our bees are in serious trouble. Well, if you put a mobile phone under a bee hive, the inhabitants move out and won't return until the phone is removed. While we don't normally put phones under bee hives, we do put everywhere phone masts, which emit the same radiation, and at far greater intensity. When I was a child, a

trip down the motorway resulted in a windscreen thickly spattered with dead insects. Have you noticed how that doesn't happen anymore? Insects, frogs, birds... all have been shown to be injured by microwave radiation, as emitted by our communications systems, and all are in decline. We are killing the natural world.

So, what is the response of government?
... Here in the UK, where most schoolchildren now swim in a sea of wireless radiation in their classrooms, the Prime Minister



has recently announced the following: Mobile phone coverage is to be increased to cover at least 98% of the country - which means more masts. To facilitate this, all planning restriction on the siting of phone masts will be removed. (And by the way, you are not allowed anyway to object to the siting of a mast on health grounds, only on aesthetic grounds.) The mobile phone network is to be upgraded from 4G to 5G, a new technology using shorter wavelengths that can penetrate walls with ease, so shielding your home against it will be very hard - a disaster for electrosensitive people - and, actually, for everyone else. Free WiFi is to be provided in all hospitals. The “internet of things” - smart fridges, smart watches, smart everything - is to be actively promoted, as is the installation of smart meters in every household. Smart meters have proved to be a disaster in the US. They have damaged the health of countless people, forcing many from their homes. Our Prime Minister has also announced that as part of an £11 billion project, our motorways and busiest A roads will be getting blanket coverage from roadside WiFi. People with EHS will no longer be able to use these roads.

In fact, to people with EHS, the very near future looks like a nightmare. And while £11 billion is spent on wi-frying our road system, our health service is buckling under the strain of too little funding and too many patients as our population becomes ever less healthy. In the past few years hundreds of doctors and scientists have appealed to governments worldwide to recognise the dangers of EMF technologies and to end their seemingly inexorable proliferation.

How will government respond? The first scientific evidence that tobacco causes cancer dates back to 1761. A major study in 1939 linked smoking to lung cancer. Today tobacco is still freely available. Our

government once told us that tobacco was safe. That thalidomide was safe. That beef from cattle with BSE was safe. That x-rays were safe. That DDT was safe. That asbestos was safe. Don't just believe what the government tells you.

In 2000 the EU, including the UK, made a commitment to apply the precautionary principle where scientific evidence is insufficient, inconclusive or uncertain and preliminary scientific evaluation indicates that there are reasonable grounds for concern about potentially dangerous effects on the environment, human, animal or plant health. We have definitely reached and I think gone well past that point. It is time to apply the brakes.



“All that is necessary for evil to triumph is for good people to do nothing.” But what can we do? We have choices. We can avert our eyes and hope

it goes away. We can despair. Or we can defend ourselves. We can refuse to let ourselves and children be guinea pigs in a huge experiment. We are up against powerful forces, but there is much you can do. Inform yourself: read one book, watch a couple of films, listen to the scientists talking. It's urgent, tell your friends and neighbours about it. Protect yourself as much as you can by replacing any damaging technology in your own home, particularly microwave and wireless technology, with safer alternatives. When the utility company tries to fit a smart meter in your home, exercise your legal right to refuse it. Hold politicians to account. The government will tell you these technologies are the future and that without them the economy will collapse. Well, they told us that the economy would collapse if we abolished slavery and that didn't stop us from doing the right thing. The people making money from selling us these technologies will fight tooth and nail to defend their interests. Ultimately, our greatest power lies in simply refusing to buy them.

READERS' COMMENTS

Tunnel radio headache

Driving through a long tunnel in Europe where there was a special radio system in case of an emergency, I noticed my headache started at the entrance to the tunnel and ended when I left the tunnel. These radios should at least have a health warning, or be banned.

Pinpointing the direction of an electrical thunderstorm

I started feeling terrible ES pains from one particular direction during the morning at home, but had no idea of the cause. I went out to have some lunch in a café about five miles away to try to escape them but they were still there, from the same direction. Later in the afternoon, again trying to escape these ES symptoms, I was walking through a local park, but I could still feel them from the same direction. Eventually I realised what the cause was when the thunder and flashes of electrical lightning suddenly started.

Where to sit?

Like many people with electrosensitivity, I have difficulties in choosing where to sit in a meeting. I chose a seat a couple of yards from the next nearest person, who was not using a mobile. Half

way through the meeting I felt a sharp headache. I looked round and noticed that someone had arrived late, was standing some five yards away, and was now using his mobile. Mobiles are worse than when people used to smoke in meetings, since at least you could then try to waft the smoke away.

Holiday difficulties: brochures should list WiFi and masts

I had checked that the holiday accommodation had no WiFi. Imagine my horror when I discovered on arrival a phone mast 100 yards away. It spoiled much of my time on the premises. Shouldn't holiday companies be required to list transmitters, like phone masts or WiFi, on or near their properties, which can cause such ill health for those who are intolerant of the radiation?





Beware ships' radar

I was feeling well after a good summer and visited friends on the South coast for the final few days of an Indian summer in September. It was close to Eastbourne, where the number of older and retired people ensures a fairly safe low electro-smog environment.

During the night, the dredger clearing the sailing and marine channels into the harbour switched on its radar navigation system and I woke up for 3 hours and haven't felt very able since then. It has taken five nights' sleep in a safe place to recoup my abilities, including physical mobility and mental acuity and memory.

Medical drug causes EHS

My long-term ill health, which much later I realised was caused by electrosensitivity, began when I took a course of Gabapentin, an anti-epilepsy and anti-convulsion drug which also is used to change nerve pain perception.



Manchester's newly toxic bus shelters

Not content with zapping us with WiFi while travelling on buses and trams, we will now be zapped while waiting for them in Manchester. I often have to wait at a distance from a stop because of people wearing perfume (I also have MCS) but the proposed WiFi will not be so easy to avoid. ["The super shelters that make buses well worth waiting for", Manchester Weekly News, 8 September 2016, p.8: Britain's first 'super shelters' are being deployed in Manchester, funded by the Department for Transport. The article does not say what provision the Dept. for Transport has made for people disabled by the toxic WiFi.]

Equality - not for all?

Why can a person disabled in movement and needing a wheelchair receive help to attend events, stay in their home, keep their job, and access premises and transport, whereas someone disabled by mobile phone and WiFi radiation usually cannot? Why does society value some people and some disabled people more than others? Does the law allow employers, theatres, shops, hotels, coaches, trains and restaurants to discriminate between people in this way? Should I simply accept that my life has been largely scrapped by society just because it prefers its mobile phones, WiFi and wireless access?



Horses can also have Electromagnetic Hypersensitivity

A friend reports that her two horses are particularly responsive to people, as noted by other riders. They are the only horses stabled at her yard which always avoid one corner. This corner is where the electric power line suspended between wooden poles overhangs the yard.

Dead whales and Lichtenberg marks

Many sperm whales have stranded around the North Sea. A report listed possible causes: (a) searching for squid or fish in shallower water, (b) submarines' sonar, or (c) noise from wind farms confusing whales' sonar system, according to research at St Andrew's University. Stranding often occurs near shipping lanes, oil platforms and underground pipes which use active Impressed Current Cathodic Protection Systems (ICCP) with up to 1500 amps at 50 V (DC) flowing into the conductive seawater around each ship or structure. Some whales appear to have Lichtenberg marks on their skin, signs of electric shock. (Tom Wyke: "The gentle giants' graveyard: North Sea whale death toll rises to 23" Daily Mail, 1 February 2016)

WiFi BANS AND HEALTH HARM

France has already banned or limited WiFi in schools. Now other countries are catching up.



Israel limits WiFi and bans mobile phones in classrooms

An Israeli Education Ministry's memorandum prohibits the use of mobile phones in class, and limits WiFi use. (Israel CH10 news, NoRad4U, 8 September 2016)

Turin planning to ban school WiFi

Turin is planning to cut back on Wi-Fi in state schools and government buildings over concerns that radiation might damage people's health. The mayor, Chiara Appendino, presented her council's five-year political plan. "We're aware that we need to consider electromagnetic radiation when we speak about pollution". Turin's previous council, which was run by the Democratic Party, tabled an identical plan six months previously. Livio Tola, the mayor of Borgofranco d'Ivrea, near Turin, told the town's high school and elementary school to replace their WiFi with old fashioned plug-in cables. ("Turin could slash Wi-Fi over 'radiation' concerns" The Local, 25 July 2016)

Kindergarten radiation exceeds EHS safety limits

A study of 10 children and 20 kindergartens in Melbourne, Australia, for personal and environmental exposures over 16 frequency bands between 88MHz and 5.8GHz, showed the median environmental exposure (179 mV/m = 0.179 V/m) and the median personal exposure (81 mV/m = 0.081 V/m) (Bhatt CR et al, J Expo Sci Environ Epidemiol., 2016).

These levels exceed the EUROPAEM 2016 safety limits for sensitive (eg EHS) people in all metrics, both environmental and personal for both GSM/UMTS and WiFi 2.45GHz/DAB (EUROPAEM limits: 19 mV/m = 0.019 V/m for GSM/UMTS, and 6 mV/m = 0.006 V/m for WiFi 2.45GHz/DAB).

Why can school WiFi be so biologically active?

Alasdair Philips of Powerwatch

UK on the strength of WiFi radiation in schools.

(a) The school routers that I have measured have not been more powerful than home routers per se.

There are often many of them (1 to 3 routers per classroom or hall are common) which increases the RF power density.

(b) Power density levels with multiple users will always be significantly higher than with one or two users – the max signal level in volts/metre does not change much, but the power flux density does as all the devices transmit and the router has to transmit much more of the time to supply data to all the users. When 20 users are browsing, etc, a router is transmitting about 100% of the available time rather than 5% of the available time. So with 20 users the power density is usually likely to be 10 to 20 times greater in the room.

(c) Increasingly school and business routers have Transmitter Power Control (TPC) which, when the devices in the classroom also have TPC, the levels in the classroom are generally



lower (by at least ½ and often better) compared to when it is not used. That turns the power down when the router and the connected device are close and therefore don't need full power to communicate. Most countries now require TPC in the 5 GHz WiFi bands, but it is less common on the old 2.4 GHz band. Some routers require all attached devices to be capable of TPC before the router uses TPC, so one rogue device can effectively disable TPC for everyone.

(d) All school WiFi should implement TPC and all devices used in the classroom should also have this ability and it should be enabled. It also reduces interference issues and saves on power.

(e) Unfortunately, the beacon signal is essential with multiple users for synchronisation and for the network to work fast.

(f) The highest exposures to the children will be from their laptop PCs or tablets (especially iPads which have WiFi only SARs from about 1 to 1.4 W/kg – similar to high SAR mobile phone handsets (cellphones). Ridiculous.

Is the 'new' 5GHz WiFi more bioactive than 2.45GHz?

People are complaining of more electro-sensitivity symptoms from newer WiFi 5GHz compared with older WiFi on the 2.45GHz carrier signal. Many recent smart phones and routers default to 5GHz. 5GHz may be more bio-active, since it has a shorter wavelength than 2.45GHz, enhancing (i) water penetration and (ii) scatter performance. The problems caused by the shorter wavelength are compensated by OFDM and higher output power limits.

1. Increased water penetration:

2.45GHz is absorbed by water more than 5GHz. Therefore 5GHz with its shorter wavelength more easily penetrates high water content objects, such as people, damp walls and rain.

2. Increased scatter performance:

5GHz has greater Non-Line-of-Site capabilities compared with 2.45GHz because of increased scatter performance. 5GHz passes obstructions by reflecting the signal off surrounding buildings. Scatter performance is proportional to signal wavelength and 5GHz has a smaller wavelength than 2.4GHz and thus the scatter performance is 19 times better.

3. OFDM to reduce scatter loss:

5GHz uses OFDM (Orthogonal Frequency Division Multiplexing) to reduce signal loss. This operates from above 1Mbps, rather than just above 20Mbps, and has MIMO (Multiple-In-Multiple-Out) technology. OFDM reduces 5GHz increased scatter, where signals reflected off objects like walls can be out of phase with each other, either reinforcing or cancelling other signals or arriving at the receiver at different times, with 52 subcarrier channels within each 20MHz channel, giving 4-8 times more non-overlapping channels. These send data in parallel with each other, reducing signal loss.

4. Increased 5GHz power:

5GHz has a smaller range than 2.4GHz by 6dB, because the signals are not able to penetrate so far through walls and solid objects. Higher power levels are necessary for similar distances, therefore, and the regulated power levels for 5GHz are much higher than for 2.4GHz.

5. Smaller Fresnel zones: these are areas between transmitters which need to be clear of obstructions; their cross-section size is proportional to the wavelength of the signal. The size of the 5GHz Fresnel zone is about half that of 2.4GHz, allowing

lower masts or greater signal distances in built-up areas, both of which can increase biological effects in people sensitive to this radiation.



These new WiFi signals are very difficult to block, causing more electro-sensitivity symptoms. These symptoms possibly, or even probably, occur below the current international biological safety limit for sensitive people of 0.006 Volts per metre and 0.1 microWatt per metre squared, as in Building Biology 2008 and EUROPAEM 2015.

These new WiFi signals are very difficult to measure on commercially available meters. At bioactive levels they are well below the meters measuring down to 0.02 Volts per metre or 0.5 microWatt per metre squared.

Alasdair Philips of Powerwatch writes: "The 5 GHz band signals use a form of spread spectrum – low-level signals across a wide frequency band. This is very different from older TDMA signal frequency data signals. These are difficult to measure correctly. Even Gigahertz Solutions (in their HFW59B Manual) say that readings should be multiplied by a factor of 2 to 4 times from these sorts of signals."

V/m, not uW/m²: Alasdair also writes: "The Bau (Building) Biologists are using the wrong metric (Power Flux Density, PFD). All the EMC interference tests specify signal strength in Volts per metre (V/m) (or dBuV/m, etc) as it is the short spikes that cause

most interference, not the overall PFD. The spikes can have high, spikey, V/m levels but actually contain very little power so the PFD can be misleadingly low. For informational signals, whispering can be just as effective as shouting in communicating between people. PFD comes from thermal heating effects and that is where it should remain, in my view, whereas Voltage represents non-thermal signal effects."

Studies showing WiFi harm

WiFiin Schools.com has a useful list of the abstracts of 136 studies showing the health effects of WiFi. It is difficult to see how any responsible organisation can allow WiFi radiation in their premises when it is so easy to check on the health damage WiFi radiation does to those exposed to it.

Children's mental health damaged by EM exposure

"One important aspect of the damaged mental health of our children, but not the only aspect, is the radiation that drives the gadgets we have encouraged our children to become addicted to. Radiation and childhood are inseparable. Radiation is now a compulsory part of growing up. Children are not given a choice. Eggs and sperms are irradiated by lap-tops, babies are irradiated by baby alarms, then it's tablets in the nursery and WiFi in the classrooms. At home it's cordless DECT phones, smartphones and smart meters. We have made damn sure children cannot escape electromagnetic radiation.



Is this long-term radiation safe? Yes, if we trust the telecoms industry (just as we used to trust VW about exhaust emissions). Yes, if we trust governments who also tell us fracking is safe. Yes, if we trust the CEOs of children's organisations in England who lazily opt to hide behind complacent government guidelines. If only these organisations could point to independent research to justify their easy reassurances! They cannot.

There is a condition, recognised in some countries, called EHS or ES. Symptoms can include sleep disturbance, tiredness, depression, headaches, restlessness, irritability, poor concentration, forgetfulness and giddiness. When I am exposed to WiFi in hotels, airports and shops I become bad tempered and argumentative and later have very strange sensations while trying to sleep. So what does this constant radiation do to school kids? Change their sleep patterns? Make them depressed? Add to their self-harming tendencies? Turn them into bullies – or victims? Make them mentally ill?



All the people I meet who tell me the radiation is safe have not looked at the growing body of international research that says it is not. Yes, all of them. When enough people get informed and get angry, governments will legislate for safe regulation of the industry. Until then...sorry kids." (Peter Limbrick "Kids can't see it. Teachers can't see it. Parents can't see it. But there it is." TAC



Interconnections, October 2016)

WiFi school: "Two children dropped dead." "This entire process is a lie."

From Rodney Palmer's submission to the Royal Society of Canada over the failure of Safety Code 6 (2013): "I worked as a journalist in Canada for 20 years. My job on a daily basis was to determine fact from fiction. Those skills have come in handy over the last five years. When my children were both coming home for school with red faces and ears, weak and limp, and agitated, we wondered what could be causing it. We spent a year trying to zero in on an allergy. We did allergy tests, withheld foods and re-introduced them, but there were no solid answers. I wasn't until my wife was suddenly struck with nausea and a severe headache in our daughter's kindergarten class that we got our first clue. It was the same symptom she gets when using a cell phone. But there was no cell phone in the kindergarten class. She asked if there was WiFi in the classroom and the principal said, "Yes. The transmitter is right above your head." I find it deeply curious when I hear the ridiculous comments from scientists who claim that studies show it's all in our heads. My wife didn't know there was WiFi in the school when she contracted a debilitating headache. My four-year-old didn't know what WiFi was when she dragged herself limply out of

school every day. And my son's ears were red hot for months before we knew WiFi was in the school, or that it might be harmful. I also hear special interest groups who brand scientists as "activists" when their findings don't fit their business model. When they don't like the message they disparage the messenger. At my own child's school, Mountain View elementary in Collingwood Ontario, we by-passed the opinions of these business people and went straight to the source. We asked mothers if their kids were healthy, and we got a consistent response from about half of them. For 18 months they'd been in and out of doctors' offices with a range of neurological symptoms. And it was 18 months prior when the school installed WiFi. We found out that at least four children had developed erratic tachycardia in this period. In all cases the condition confounded their doctors and they were wearing heart monitors to school. The older children who were a little more aware of their bodies told us they had black-outs in certain areas of the school. One even said he couldn't hold a pencil inside the school. These were all symptoms that occurred daily at school and disappeared on weekends and holidays. We found out that the school Board had installed a wireless internet system powerful enough to run 300 computers at once. There are only 7 computers in the school using the system. Parents offered to pay for hard-wired computers so their kids could feel healthy at school again. But the Simcoe county District School Board said no. They said the children must be exposed to WiFi at school. Their reason: Safety Code 6 says it's safe.





Two children have dropped dead in Simcoe County schools since WiFi was installed. Their hearts simply stopped beating. It's curious this would happen twice to children just over ten years old. There are only 50 students in the entire school district. I did the research to find out if this was abnormal. It turns out the estimate is about one in 1.3 million for childhood cardiac arrest. This was 20 times higher than expected. It should have triggered a public health investigation. Then it happened again in another Simcoe County school to a 13-year-old. He dropped from cardiac arrest in the school yard. Then within the year it happened again in another Simcoe County School to a 16-year-old boy. This was four kids, bringing the observed rate of juvenile cardiac arrest in Simcoe County schools to 40 times the expected. The only response by the Simcoe County School Board has been to install defibrillators in 100% of our schools. I alerted the Simcoe County Public Health Department about an

illness cluster in our school that I believed deserved investigation. I was told that according to Safety Code 6 this was impossible and did not warrant investigation. So how would they scientifically explain erratic tachycardia where a child's heart moves from 68 beats per minute to 200 beats per minute in a single beat? How is that all in their heads?

One parent asked if her son could be moved to the back of the class, away from the transmitter. He left the house healthy every morning and developed headaches shortly after sitting down at his desk. The teacher said no. The school Board said he's not allowed to accommodate any student based on illness from WiFi. His mother removed him from school permanently. And the 9-year-old boy became one of many in Simcoe County who don't go to school anymore, because he can't tolerate these lower levels of microwave radiation despite Health Canada's promise. Finally the school Board measured the levels of microwave radiation. Their goal was most likely to compare the levels to Safety Code 6 so they could shut us up once and for all. Except what happened shocked even them. The very first measurement exceeded the microwave levels that triggered a heating reaction. Exceeded it by 34%. So we were right. That explained why my son came home from school with red-hot ears everyday. He was being cooked by microwaves. The school Wifi operates at 2.4

GHz, the same frequency as a microwave oven. So did they shut it down? Did they evacuate the school? Did they alert the teachers? The parents? No matter if kids are too sick to attend school. No matter if kids drop dead in their gyms.



I submit that Health Canada is manipulating the system. I've seen their officials mislead reporters on national television, stating that there is "no evidence of biological effects" from microwave exposure below thermal levels. There are doctors gathering annually in the United States who are grappling with the increasing number of patients in their offices with sudden onset chronic illness. So far they report that symptoms abate if they're able to turn off their newfound wireless devices. The Complex Chronic Disease Program in Vancouver states the doctors are "overwhelmed" by medical referrals for electrical sensitivity and they can't keep up. These are both government funded clinics using government funds to examine and diagnose the very illnesses that Safety Code 6 says can't exist. Children know one thing instinctively, that it's wrong to tell a lie. As long as we pretend no one is suffering, this entire process is a lie. Let's start acting like children, and tell the truth."



PHE AND DH FAILURES



Public Health England

The case of Diana Boughton [see page 1] highlights the failure of Public Health England and the Department of Health to provide accurate and current scientific advice on EHS.

Some questions about PHE's and the DH's failures

Why are Public Health England and the Department of Health failing to keep up with the medical science which shows that EHS is a real physical medical condition?

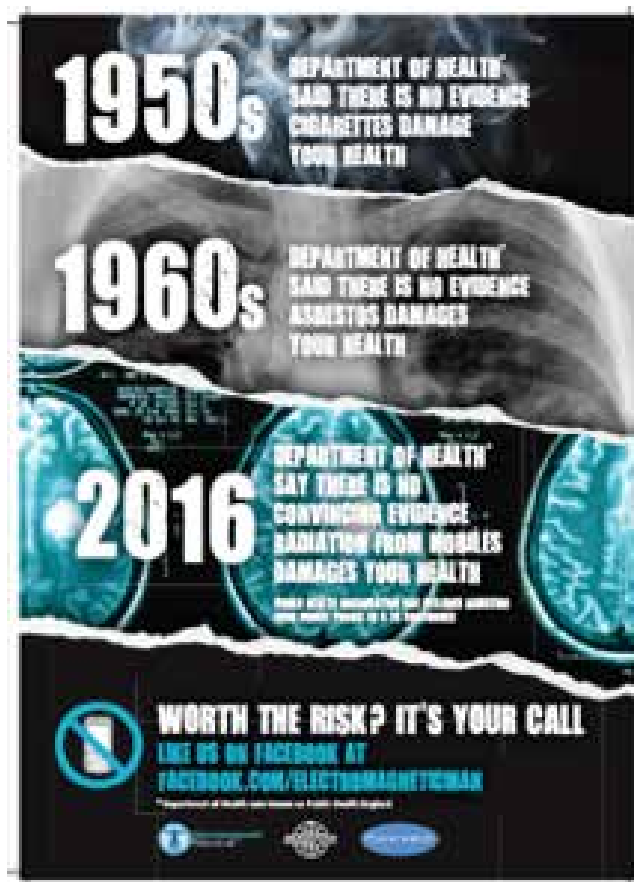
Why do PHE and the DH still confuse Electrosensitivity with Electrophobia when the majority of scientists now accept harm from low-level EM energy?

Why do PHE and the DH refuse to discuss with EHS people the problems caused by PHE and the DH'S failure to keep up with the science?

Why do PHE and the DH give 'generalised' advice for the whole population, when it's well known that allergic rhinitis (~22%) and other allergies, such as those to nuts (~1.3%) and electricity (~3%), affect only part of the population and the ICNIRP warned governments that this was the case for "certain sensitive individuals" in 2002?

Why do doctors and occupational health advisors require a personalised diagnosis and health plan for the individual affected, not for the population or whole work force, whereas PHE and the DH only diagnose the whole population but refuse to let medical doctors diagnose an individual patient as allergic to an environmental agent like electromagnetic energy as they would to other physical environmental agents?

If PHE and the DH wish to indicate the actual risk from electromagnetic energy, why not give a percentage as in many other areas of risks or intolerances? 'Convincing', 'consistent', 'known', 'weight of evidence' and 'established' are often too general to be relevant in biological organisms where the molecular and DNA complexity is too great for multi-system conditions to be given such subjective and uniform labels.



[this is a screen print of the A4 poster]

Poster on PHE failures and wireless dangers

A powerful poster on mobile phone radiation has been produced by Electromagnetic Man, the RRT, and Powerwatch. It challenges the Department of Health and its Public Health England's (formerly NRPB, HPA) invalid claims about no established danger from wireless technology like mobile phones and WiFi.

"1950s: Department of Health said there is no evidence Cigarettes damage your health.

1960s: Department of Health said there is no evidence Asbestos damages your health.

2016: Department of Health say there is no convincing evidence Radiation from Mobiles damages your health.

World Health Organisation has declared Radiation from Mobile Phones as a 2B Carcinogen.

Worth the Risk? It's Your Call."

Department of Health

Why is PHE lagging so far behind the science?

Three possible reasons have been suggested.

(a) Medical and scientific inadequacy: PHE lacks the resources and expertise to keep up to date:

(i) PHE's press office in 2016 was still referring to a website last updated in 2012-13 and its AGNIR 2012 Report based on studies of 2003-2010, some 6 years or more ago; (ii) PHE still lacks a



doctor expert in diagnosing and treating real EHS rather than the different condition of Electrophobia.

(b) Denial of the medical science: PHE knows the science proving real physical EHS but refuses to warn the UK government and the Department of Health.

(c) Silencing by politicians: PHE knows that real physical EHS exists but is forced into denial by its political masters, despite its doctors being under their Hippocratic oath. Such silencing by government seems likely, given the way the UK, following the power-line crisis in the USA, established AGNIR (Advisory Group on Non-ionising Radiation). Its first chair, from 1990 to 2003, was Sir Richard Doll (then aged 78-91), whose fame for confirming the link between smoking and lung cancer in the 1950s allowed him in later life to switch sides and support industries like chemicals, asbestos and the electricity industry. Doll thus argued, anti-scientifically, that the social and financial advantages of existing electrical use outweighed any health concerns, using his prestige to sway those who did not know the actual science (see ES-UK Newsletter, 11(2), July 2013, pp.21-23).

How is PHE lagging behind?

PHE is now lagging significantly behind in two areas. These are (a) the international medical science, and (b) legal and practical recognition of EHS in the UK and elsewhere.

(a) Key medical and scientific areas about EHS

There are no or insufficient references in PHE literature to the following areas.

(i) The cumulative evidence from 1932, when real EHS first described. The specific symptoms

associated with EHS have been listed since 1932, meaning that it is invalid to suggest that such specific symptoms, such as headaches, heart palpitations, muscle effects etc. are not related to EM energy.

(ii) Recent studies confirming convincingly and consistently real EHS (e.g. Rev Env Health, 2015, 2016 showing the current state of research and guidelines for EHS).

(iii) Studies (e.g. Dieudonne M, 2016) showing that real EHS is not a Nocebo effect or essentially a psychological condition. The minority clique of activists still seeks to confuse real EHS with the different condition of psychological Electrophobia, still proposed in the long invalidated WHO Backgrounder 296 of 2005.

(iv) Skin effects are well known specific symptoms of real EHS. It was therefore invalid for one of PHE's staff, also a member of the single-viewpoint private group ICNIRP, to suggest earlier in 2016 that the skin effects experienced by Diana Broughton, like other people with ES, were unlikely to be related to exposure to wireless radiation from a phone mast. (v) Studies showing that wireless smart meters can cause real EHS and worsen specific EHS symptoms (e.g. Lamech F, 2014). It was therefore invalid for PHE to state in a written answer exactly the opposite.

(vi) Studies showing that wireless radiation from WiFi can cause real EHS and worsen specific EHS symptoms (e.g. over 130 related studies concerning WiFi and similar radiation available on many more up-to-date websites).

(b) Key legal and practical areas of EHS or Electrophobia discrimination

There are no references in PHE literature to the following.

(i) The Health & Safety at Work Act 1974 which requires

employers to provide a safe and healthy environment both for their employees and for visitors to their premises, and requires them to make reasonable adjustments for those disabled by conditions at work.

(ii) The Equality Act 2010 (similar to the United Nations UN Convention on the Rights of Persons with Disabilities, which the UK signed in 2009). This requires employers to provide equality of access for their employees disabled by the environment by making reasonable adjustments. These adjustments





would be similar to those required under the Health & Safety at Work Act 1974, with the addition that the employer is expected to make them, unless the employer has specifically advertised the job as unsuitable for a person disabled by exposure to wireless

energy (either EHS or Electrophobia).

(iii) The HSE's EMF Guidelines of 2016 on how employers should deal with Persons at Risk and the special provisions they need as regards e.g. Bluetooth, WiFi, mobiles etc.

(iv) ESA and JSA: how judgements in 2016 by a tribunal and by a High Court judge have allocated ESA and exemptions for JSA in relation to EHS applicants.

PHE's 2016 failure to mention 2014 study

In the last Newsletter (vol. 14(2), Summer 2016), it was reported that in 2016 PHE advised, in a written answer for the House of Commons, that there were no health hazards from wireless smart meters and that they did not cause or add to electromagnetic hypersensitivity. This reply failed to mention the only peer-reviewed health study of smart meters (Lamech F, 2014) of two years ago, which showed convincingly and consistently that wireless smart meters can cause and aggravate EHS. The Minister of Health has stated that PHE keeps all science under constant review. PHE has admitted that it is now knows about this study but its Dr S Mann stated (8 November 2016): "I can confirm that we are aware of the study you mention and that it does not change the position that PHE reached after the 2005 Irvine report and the AGNIR 2012 report."

'ACTIVE DENIAL': TAKE ACTION!

By Barrie Trower

Every ES-UK Newsletter publishes articles about government scientific advisors and their intransigence with accepting the seriousness and suffering of electrosensitive persons.

In 1960 I was introduced to the government's 'Active Denial' programme, which basically speaks for itself. Deny everything.

There are 2 reasons for this: (i) Avoid litigation, and (ii) Protect industrial profit. The Active Denial programme practiced by the UK and some allies is a 50-year delaying stratagem to: (a) Allow those decision makers not to be held responsible, and (b) Ensure that as few survivors as possible live to give evidence. In my lifetime, I have known of nine such programmes reach court. One still being deliberated in the High Court, as I write this, 'the irradiation of innocent victims' (no, this isn't the first time) is being reported on by Simon Best (Caduceus issues 93 and 94).

However, there is a difference today. As of the 1st July 2016 you have the new HSE Guidelines (ES-UK Vol 14 No.2 p.12). Whilst, as it seems, some government scientific advisors have some sort of Teflon-coated armour, there is one government department which can penetrate it: the Treasury. Once you start to cost the treasury more than it receives in taxes, they really do not like it and start issuing their own guidelines (think of smoking). If every ES person who is employed takes full advantage of 'the special consideration from employers', including risk assessment, electromagnetic exposure (particularly special cases: females who may wish to have children, those with medical conditions, implants etc) it will have an impact. Rather like using your vote. With between 3% and 15% of our population ES (depending on which study you read) that is some 'tour de force' to placate.

It will slowly impact on the treasury, especially if each employee takes advantage of their union or free legal advice scheme. (Even my motoring organisation offers free legal advice on any topic). The only way to resolve this will be to cut emissions and seek an alternative method to transmit data e.g. cable. The corollary to this is, if nobody exercises their right for an electromagnetic free environment, as far as our government is concerned, it will not exist. Those employed can now do a lot for those who cannot work at present.

MTHR: INDUSTRY SUPPORT

MTHR: “biased in favor of the telecommunications industry”?

The Mobile Telecommunications and Health Research (MTHR) programme was “established in 2001 on the recommendation of the Independent Expert Group on Mobile Phones (the Stewart Committee) with initial funding of £7.36M provided by government and industry on a 50:50 basis” (Report 2007, p.1). The membership of the management team included Dr Repacholi and others who belong to the small clique invalidly claiming that the only adverse effect of EM exposure is heating. MTHR’s research failed to replicate studies showing adverse effects and has been much criticised. The research would not be allowed as evidence in those countries where sources of funding from industry and government are seen as likely to influence the outcome of the research in favour of those who sponsored it.

Professor Emeritus Denis Henshaw recalls the correspondence from James Rubin and David Coggon following publication of the 2011 paper by McCarty and Marino: “Electromagnetic Hypersensitivity: Evidence for a Novel Neurological Syndrome” [International Journal of Neuroscience, 2011]. Following publication of this paper, Rubin wrote a letter to the Editor [Internat J Neurosci., 2012] ending with: “Declaration of interest: The authors have previously received funding from the UK’s MTHR Programme. Dr. Rubin has acted as an expert witness regarding the installation of Wifi equipment by the Diocese of Norwich.” Prof. Henshaw notes that if the MTHR is an innocent body, why did Rubin declare his funding as a Declaration of interest?

Marino wrote a response to Rubin [Internat J Neurosci., 2012], in which he ends by saying: “Finally, the authors [referring to Rubin et al] have been well funded by sources for whom general acceptance of an association between environmental EMFs and human disease would be financially disadvantageous. This coupled with their consistent record of pursuing predictably negative results by using a linear model for EHS creates at least the appearance of an important financial conflict of interest”.

Rubin then responded further [Internat J Neurosci., 2012]:”...Marino et al. claim that we have been ‘well-funded by sources for whom general acceptance of an association between environmental EMFs and human disease would be financially disadvantageous.’ They are wrong. Our previous funder (the MTHR programme) is the UK’s official expert body that was set up to distribute funds to researchers exploring the potential health effects of RF and to act as a robust firewall between researchers, government, and industry.”

David Coggon replied [Internat J Neurosci., 2012], saying:”....the letter by Rubin to which they were responding included a declaration that Rubin’s team had been funded by the UK’s Mobile Telecommunications and Health Research (MTHR) Programme [2]. This might lead some readers erroneously to conclude that the MTHR Programme is biased in favor of the telecommunications industry.” [!]



WHO, ICNIRP AND ACEBR. FRINGE VIEWPOINTS

The WHO and ICNIRP are wrong on EM exposure

“The main conclusion from the WHO reviews is that EMF exposures below the limits recommended in the ICNIRP international guidelines do not appear to have any known consequence on health.” (WHO: website in 2016 on “Standards and Guidelines”)

This is blatantly wrong. IARC, a WHO review agency, in 2001 and 2011 classified exposures below ICNIRP heating levels as 2B

human carcinogens and the leading experts now say both ELF and RF/microwaves should be class 1. In 2015 both ELF and RF were confirmed as tumour promoters. The NTP in the USA showed definitively in 2016 that EM exposure can cause cancer. Cancer is now a known ‘consequence on health’.



How can the WHO be so wrong? If they followed the current scientific evidence, the WHO could not make such an invalid claim. The WHO relies on the private group ICNIRP, with its one-sided fringe viewpoint.

How can the ICNIRP be so wrong? To justify its heating-only limits, ICNIRP appears to be claiming that all health effects are the result of heating and where there is no, or no perceptible, change in heat, but thermoregulation or thermoreceptors are still disturbed, it means there must be some sort of hidden ‘heating’ effect, although it accepts adverse non-thermal effects for ELF. Since, however, it has long been established in the majority science that non-linear non-thermal effects on homeostasis exist and that they depend on frequency, modulation and signal pattern, not heat intensity, this ‘hidden’ thermoregulation hypothesis is clearly invalid. It has long been established that low-level effects can be non-thermal. This renders the current minority ‘heating-only’ viewpoint of ICNIRP as

invalid and irrelevant to the modern debate.

Another group, open to modern science, is needed to provide protection for the general population, including people with EHS, with biological limits like EUROPAEM 2016.

Experts say that the current EM crisis seems like smoking and asbestos again. Then industry pressured regulators into denying the problem until slack governments, through following industry and not the science, had effectively caused the deaths of millions of people by not acting when the science was first published, but only after legal cases compelled them.

EU brief of 2001: “ICNIRP Guidelines no protection” “contravenes the Nuremberg Code”

“Ensure that there are no ELF frequencies in the range of human electrical brain-wave activity, or windows of calcium efflux ... A major contemporary threat to the health of Society is man-made ‘electrosmog’. This non-ionizing EM pollution of technological origin is particularly insidious ... there is literally ‘nowhere to hide’ ... What distinguishes technologically produced EM fields from most natural ones is their much higher degree of coherence ... This greatly increases their biological potency, and ‘opens the door’ to the possibility of frequency-specific, non-thermal influences of various kinds, against which existing Safety Guidelines, such as those issued by ICNIRP, afford no protection ... The [ICNIRP] Guidelines thus do not protect against adverse health effects provoked primarily and specifically through influences that the frequency of the fields might have on the human body ... we are currently vulnerable to adverse health effects that might be provoked by non-thermal effects of the frequency dimension,

which escapes regulation by the existing intensity-based [ICNIRP] Safety Guidelines ... It can be no coincidence that in Russia, where the frequency-specific sensitivity of living organisms to ultra-low intensity microwave radiation was first discovered over 30 years ago, that the exposure guidelines are still 100 times more stringent than those of



ICNIRP ... an essentially linear perception, which might well be adequate to deal with thermal effects, is inappropriate for realistic consideration of the non-thermal, frequency-specific vulnerability of the living organism ... non-thermal influence necessarily depends on the state of the organism when it is exposed. This of course varies not only between different individuals, but also for the same individual, depending on his/her condition at the time of exposure – i.e. such influences are inherently non-linear in nature ... Of particular concern to the public, and generating the most outrage, is the involuntary subjection of certain groups of the population 24 hours/day, 7 days/week to the emissions of GSM base-stations, when they are insensitively sited near to homes, schools and hospitals. The environment of these people is permanently and unavoidably polluted. This is a totally unacceptable state of affairs, which raises serious ethical questions, and arguably contravenes the Nuremberg Code.”(Hyland G: “The physiological and environmental effects of non-ionising electromagnetic radiation” European Parliament: Directorate General for Research-Directorate A, STOA, 2001).



ICNIRP’s heating effects: confusion over ‘thermoregulation’

A minority pro-wireless clique of activists still clings to the invalidated heating-only hypothesis, disproved decades ago. Critics argue that under the ICNIRP’s heating-only fallacy, all human exercise which raises body temperature by one degree within six minutes would be banned.

Dr Phil Chadwick, a physicist by training who spent 11 years at the UK’s NRPB (now PHE) and 4 years at the Department of Health’s Radiation Unit and is chair of CENELEC TC106X (European Committee for Electrotechnical Standardization, the EU agency implementing ICNIRP heating standards), commented on Prof. Dariusz Leszczynski’s article “Do mobile phones give you brain cancer?” (The Conversation, 8 August 2016): “You don’t need a temperature rise for it to be thermal ... any level which invokes thermoregulatory response is in the thermal regime.” Leszczynski replied correctly:

“Thermal effects are due to temperature rise. No temperature rise - no thermal effects.” ICNIRP’s heating limits are designed to prevent temperature rise, not thermoregulation or homeostasis. Chadwick apparently based his belief on an extraordinary claim made by Eleanor Adair, a life-long microwave proponent: “The term ‘non-thermal’ is often defined in terms of the lack of a measurable increase in the temperature of exposed tissues. However, even when no changes can be measured in the deep or peripheral temperatures of the body, sensitive thermoregulatory mechanisms are mobilized to dissipate any heat generated in body tissues by the absorption of thermalizing energy from RF sources in the environment.” (Adair ER (2000) “Thermoregulation: Its Role in Microwave Exposure” in: RF Radiation Dosimetry.” NATO 82: 345-355.) In fact, it has been long accepted by everyone, including ICNIRP, that there are non-thermal effects at extremely low frequency and, since mobile phones and WiFi include ELF, to claim that WiFi and mobile phones cannot have adverse non-thermal health effects is clearly invalid.

Croft, a member of ICNIRP, rejects GP’s medical evidence for EHS

The problem of ICNIRP’s failure to follow the medical science of EM intolerance is seen in reactions to Leonie Southern’s EHS in Australia. She can no longer live anywhere near sources of wi-fi because of severe health effects caused by EHS. The condition is so distressing, with stroke-like symptoms and a distorted left side of the face, that she and her husband have moved from their home in Bermagui on the NSW far south coast to a farm further inland, to get away from any wi-fi reception. Dr Gudrun Muller Grotjan, Ms Southern’s local GP, said there was no clear path to treating the problem. She said she accepted that Ms Southern’s attribution of WiFi as the cause was credible: “I’m think I’m quite happy to admit that there’s a lot of phenomenon that I cannot explain, and that medical science has probably not really managed to describe properly.”

In contrast, Rodney Croft, a member of ICNIRP since 2012 but a psychologist and not a medical doctor, who does not seem to have examined the person in question, claimed that the cause was: (i) something other than exposure to WiFi, (ii) anticipation by the sufferer that they were going to be affected, and: (iii) “I certainly couldn’t tell you what’s causing it.”

(Bill Brown: “Woman claims severe health problems are caused by wi-fi but international studies find no link” ABC News South East NSW, 12 September 2016)

Croft found reliable non-thermal effects

“We’ve been exploring effects on mobile phones on very subtle changes to brain function. We have been finding reliable changes in a particular frequency of brain activity called the alpha rhythm.” (Croft in: Ticky Fullerton, “Scientists speak out on mobile phone, cancer link” ABC Lateline, 2 April 2009)

Croft’s ACEBR: industry funding

Croft was director of the Australian Centre for Radiofrequency Bioeffects Research from 2004 to 2011. “The ACEBR was created with Telstra funding and Telstra lab equipment. Rodney Croft denies the industry buys influence. You have Telstra researchers working through the ACEBR. Your board consists of at least one director who’s a Telstra board member, who’s a former chief Government scientist and a former head of the CSIRO.” (Ticky Fullerton, “Scientists speak out on mobile phone, cancer link” ABC Lateline, 2 April 2009)

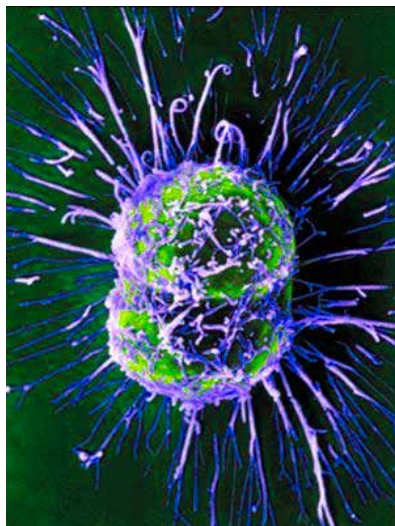


Industry-funded ACEBR: invalidated heating-only hypothesis?

ICNIRP’s Croft has been director of the Australian Centre for Electromagnetic Bioeffects Research since 2012. This is apparently financed by money from the telecoms industry via the Australian government’s National Health and Medical Research Council.

ACEBR seems to follow ICNIRP’s invalidated claim that only heating causes a health effect.

This results in the absurd argument that any change in thermoregulation must count as a heating effect. Homeostasis, however, could be upset by various biological stressors, including polarised, coherent or resonant waves of non-thermal EM energy at frequencies which



excite particular molecular reactions and membrane depolarisation, as established since 1967. ACEBR’s website (dated 2015) states: “It is widely accepted that emissions from mobile phones cause minute heating of the brain ... the electric field generated by mobile phone causes electrically charged particles in brain tissue to move ... this produces heat... the electric field causes water molecules, which are positively charged at one end and negatively charged at the other, to rotate ... thus producing heat.” It also admits, however: “a select number of proposed non-thermal interaction mechanisms have some experimental support which requires further research”, although these have been established in the majority-viewpoint science for several decades. Even if ELF or RF activates thermoreceptors in the skin, the established changes in brain function at non-thermal levels show that ICNIRP’s heating limits do not fully protect health. They should be replaced by international biological limits, such as EUROPAEM. [See above for the difference between temperature rise and thermoregulation.]

ACEBR’s EHS study: pointless?

ACEBR is undertaking an EHS study, due to be published in late 2016, led by the psychologist Rodney Croft with co-investigators Adam Verrinder, Sarah Loughran, Vitas Anderson, Lena Hillert, Gunnhild Oftedal and James Rubin. Of these seven, three (Croft, Loughran and Oftedal) are ICNIRP members or advisors, and two others (Hillert and Rubin) have already published sceptical reviews of real EHS. ACEBR’s website

says of its significance: “If RF exposure indeed triggers the concern and associated symptoms, then RF avoidance may be a suitable strategy for symptom reduction, whereas if it is the result of a Nocebo effect, then a psychologically complex scenario needs to be dealt with.” Since it is already established that EHS is triggered by EM exposure, however, and is not essentially a Nocebo reaction (Dieudonne M, 2016, etc), this is a pointless study. The established strategy of avoidance, therefore, is the only valid one, not psychiatry. The confusion between Electrophobia and real EHS appeared in the long-invalidated WHO Backgrounder 296 dating from 2005, but the scientific consensus changed to accepting adverse health effects from low-level EM energy in 2008. Perpetuating this confusion is a fringe position in comparison with accepting the majority viewpoint.





ACEBR's one-sided industry-backed minority viewpoint

A recent review of ACEBR's current research (Loughran SP et al, Int. J. Environ. Res. Public Health, 2016) shows the problems of a one-sided minority viewpoint. Of the 25 authors, three declare Conflicts of Interest as full-time employees of Telstra or the Australian Mobile Telecommunications Association, while three others are members or advisers of ICNIRP. It quotes the long-invalidated claims that "the predominant view" is that mobile communication bioeffects are "primarily thermal" and that "there is no substantiated evidence that these bioeffects adversely affect health". This is referenced to a paper by Van Rongen E (chair of ICNIRP) et al, 2009, which takes the typical ICNIRP sceptic viewpoint: "a causal relation between EMF exposure and symptoms has never been demonstrated". The review also states: "There is currently no substantiated evidence that the symptoms are related to the EMF exposure, referencing Rubin GJ et al 2010. This ACEBR paper was submitted after publications appearing to confirm a causal relation between EMF exposure and symptoms, eg (just a few): Kolodynski AA et al 1996, Hocking B 2001, Levallois P et al 2002, Santini R et al 2002, Navarro E et al 2003, Santini R et al 2003, Hutter H et al 2006, Abdel-Rassoul G et al 2007, Blettner N et al 2009, Eger H et al 2010, Khurana VG et al 2010, Buchner K et al 2011, McCarty DE et al 2011, Genuis SJ et al 2012, Havas M 2013, De Luca C 2014, Lamech F 2014, Shahbazi-Gahrouei D et al 2014, Shinjyo T et al 2014, Dasdag S et al 2015, Hedendahl L et al 2015, Johansson O 2015, Kaszuba-Zwolinska J et al 2015, Pall ML 2015, Redmayne M et al 2015, Saili L et al 2015, Shahin S et al 2015, Belyaev I et al 2016, Dieudonne M 2016, and Paknahad M et al 2016. None of these papers, however, is referenced or discussed. To critics this appears one-sided, with referencing to out-dated studies. The paper concedes that "there are a large number

of reports of alternative EMF–bioeffect interaction mechanisms and health effects themselves" and mentions the International EMF Scientist Appeal, but then curiously states: "This review will not address that debate". It admits that ACEBR's EHS research on Electrophobia has "has proven difficult as it requires individuals to subject themselves to what they perceive as the cause of serious impairment, and to do so repeatedly over a 3 day period. Three IEI-EMF individuals have been assessed to date, with more planned if recruitment is possible. We have not found evidence that MC-EMF caused symptoms in any of the individuals, whereas belief was found to be a strong predictor of symptoms."

In contrast Belpomme D et al 2015 has diagnosed some 675 patients with real EHS, and not with the ICNIRP's, WHO's and ACEBR's Electrophobia. The ratio of 3 patients with Electrophobia compared to 675 with real Electrosensitivity may reflect the actual proportion of the general population with these two different conditions.

The most telling evidence that this is a one-sided minority viewpoint is its failure to refer to the WHO IARC's classification of RF as a 2B human carcinogen in 2011 by a majority of 28 to 2, where the evidence was based on bioeffects caused by mobiles at under ICNIRP's heating limit. It therefore seems misleading to pretend that a minority activist clique is the "predominant" view, except in the limited sense that pro-industry views still dominate many regulators.

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ICNIRP crisis: difference from WHO methodology

ICNIRP is not just in crisis over its invalidated heating-only hypothesis and claims about thermo-regulation. The crisis continues over its role and scientific standing as a fringe single-viewpoint pressure clique. It does not meet the different scientific methodology required by the World Health Organization, even though it is an agency recognised by the WHO: "Joint ICNIRP/WHO Guidelines? Not Possible: Substantial discussion occurred regarding potential joint Guidelines, but, WHO would require their whole method to be jointly adopted." (Rodney Croft: "ICNIRP Guidelines Setting Process", ICNIRP Cape Town workshop, May 2016)



INTERNATIONAL NEWS

New Ontario Environmental Centre

Ontario's ministry of health and long-term care has launched a task force to address 'recognition and care' of people in Ontario with environmental and chemical sensitivities (ES/MCS), myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS) and fibromyalgia (FM). Since 2008 Varda Burstyn and John Doherty, co-chairs, and Denise Magi, have been working on the project for an Ontario Centre of Excellence in Environmental Health (OCEEH), along with other health policy experts, health care providers, patient organization leaders, researchers, public servants and physicians. They aim to bring about recognition, inclusion and equity for people with these disabling health disorders, who struggle painfully without recognition or care in our health care system. In May 2016 Ontario announced the formation of a Task Force on Environmental Health (TFEH), whose job it will be to bring back final recommendations for government action to 'raise awareness and improve care' for the roughly 550,000 people in Ontario living with these conditions.



Irish report: usual minority activist claims and inaccuracies

"Electromagnetic Fields in the Irish Context" (RIVM Report 2015-0073 E.F. Hall et al.) was commissioned by the Irish government from the National Institute for Public Health and the Environment from the Netherlands. It includes erroneous statements: "Research conducted so far has not found scientifically conclusive evidence for the ability of people to detect low-level EMF or for a causal relationship between EMF and non-specific symptoms." It adds, however: "Some individuals were observed detecting ELF fields", ignoring that all scientific evidence depends on observation! The report claims that this conclusion is more cautious than in 2007, when "Research has not established any link between EMF exposure and the occurrence of EHS symptoms" (p.27). The report also inaccurately states for the UK (p.35) that "the ICNIRP guidelines are considered to be protective of the general population as a whole". This contradicts the ICNIRP's own warning in 2002 to governments to provide non-thermal limits below its heating limits for "different groups in a population" which have different

abilities "to tolerate a particular NIR exposure" and for "certain sensitive individuals" (ICNIRP, 2002). This report is not peer-reviewed and is mainly a compilation of other pro-industry reports.

Industry scared by science

"Pseudoscience is bad enough when it infects astrologers, 9/11 truthers and crop-circle makers. But when its symptoms show up in mainstream bodies, such as the World Health Organisation, it's time to be worried." (Matt Ridley: "Stop misusing science to scare the world", The Times of London, 18 April 2016, about the MMR vaccine, glyphosate classified as a 2B carcinogen by IARC, and neonicotinoid pesticides.)

Galileo again? Australian TV may sack outstanding programme team

In an act of extraordinary censorship, almost unbelievably the ABC's response to an outstanding and "important piece of journalism" acclaimed worldwide was to sack all its Catalyst staff and axe the popular science programme, although three days later it seemed that ABC had relented a little. Simon Nasht said: "This decision has



been taken by a board where no one has a science degree, by ABC senior executives where no one has a science degree, and by editorial managers who have no experience in science broadcasting.” The last Newsletter (14:2; Summer 2016, p.28) highlighted the excellent investigation presented by Dr Maryanne Demasi on the dangers of WiFi and mobile phones. It was heavily criticised by a small but vocal clique of activists, including Rodney Croft, a member of ICNIRP. It seems that ABC, showing a similar over-reaction and similar failure to appreciate the programme’s courageous and valid revelations, gave way to pro-wireless industry pressure and attacks from people like Simon Chapman, who then described the extreme censorship as “madness”. Only Dr Demasi and her team come out with credit from this sorry episode. (Amanda Meade: “ABC’s Catalyst staff to be sacked and weekly TV show format scrapped” Guardian,

31 October 2016; “ABC axes Catalyst program”, ABC PM, 3 November 2016; Karl Quinn: “ABC ‘saves’ Catalyst, but staff to go in restructure” Sydney Morning Herald, 3 November 2016)

Internet trolls attack Wikipedia: two entries needed for EHS and Electrophobia

It seems that the minority clique has been at work on the EHS entry in Wikipedia. Its opening (on 31 October 2016) stated: “Electromagnetic hypersensitivity (EHS) is the false belief that exposure to electromagnetic fields result in adverse medical symptoms. EHS has no scientific basis, is not a recognised medical diagnosis, and claims surrounding it are considered to be pseudoscientific.” Every part of this is wrong. Logically a ‘sensitivity’ cannot be a ‘belief’. It is now established that EHS is not a psychological Nocebo condition. EHS has had a substantial

scientific basis since 1932 including recent studies such as Rev Environ Health 2015-16; “no scientific basis” is absurd. It has been recognised internationally since 2000. There is nothing pseudoscientific about the many solid studies showing biological reactions near masts, mobile phones and MRI scanners. Perhaps proper medical scientists and ordinary EHS Wiki users should challenge the internet trolls and industry shills over such blatantly prejudiced claims. The Wiki founding principle was that any reader can edit and change the content to make it more accurate. It would be better if the entry reflected the current majority acceptance of EHS rather than the minority belief only in the different condition of Electrophobia, which ought to have a separate entry.



ELECTROSENSITIVITY STORIES

11-year-old denied school by WiFi radiation

(Janis Hoffmann: “Wireless technology exposure impacting 11-year-old student” Oliver Chronicle, 26 July 2016)

About Tyler, who developed EHS in 2012 aged 7, and in 2016 aged 11 was forced out of schools in the Saanich School District, British Columbia, Canada. Tyler is one of many children who is suffering from the mandatory exposure to the wireless technology that has been installed in our schools. Parents are frustrated with having to deal with School Boards who are wilfully turning a blind eye to the thousands of peer-reviewed studies confirming the health effects from this unregulated technology that has never been tested for safety. Here is a story that needs to be told!



Tyler is now 11 years old and has a recognized disability, EHS (electro-hypersensitivity), which means with accumulative and prolonged exposure to microwave radiation from wireless technology, he experiences severe headaches, accompanied with vomiting, extreme fatigue, insomnia and now night terrors. For the past 4 years he has been shuffling between three different School Districts to avoid the mandatory exposure, which School Officials have decided, is ‘crucial’ to teach the curriculum.

Around April 2012, Tyler, who was then 7 years old and in Grade 2, started coming home with severe headaches that corresponded with increasing fatigue and sleeping difficulties. The first few times Tyler was asked to place his finger where it hurt and he would touch the top of his head. But later, as the headaches increasingly became worse to the point of nausea, Tyler was unable to touch the pain, stating it was in the middle of his head.

After many weeks of taking Advil and Tylenol

to alleviate severe pain in his head, we knew something was seriously wrong. We were discussing the problem with some parents on the school ground and discovered a Wi-Fi router had been installed in the school just weeks before. Tyler's paediatrician requested that Tyler return to school with the Wi-Fi transmitter turned off so he could start a process of elimination to see if the Wi-Fi was giving Tyler the headaches. Our request to the first School District was denied. We were told they couldn't turn the Wi-Fi off, even though they weren't using it, because it would set a precedent. If they turned it off for us they would have to turn it off for everyone. Tyler was unable to complete Grade 2 with his friends and we were dismissed from the first School District.

For the next 4 years Tyler was moved around within Victoria and Saanich School District and he has now graduated into Middle School where we were assured that there was only 25% coverage. We were told he would be placed as far away from the Wi-Fi routers as possible so he could attend school with his friends. On Friday Sept. 11, I received a call to pick Tyler up because he had a severe headache. Tyler suffered through the long drive home and immediately went to bed to see if he could alleviate his pain. He started vomiting around 5:00 pm and his headache carried on until he finally fell asleep around 8:00 pm that evening. Throughout that time Tyler was given the recommended doses of Tylenol and Advil as per his doctor's instructions but nothing seems to alleviate his pain. These headaches are debilitating, excruciatingly painful and the longer he is exposed the more severe his headache, nausea, extreme fatigue and insomnia will be. Unfortunately with electro-hypersensitivity (EHS) avoidance is the only answer.

We were assured there was only 25% Wi-Fi coverage in Royal Oak School Middle School as per the policy 3120, whereas in fact the school has 100% coverage and is able to download 30 laptops from a commercial Wi-Fi router three classrooms away. We were never informed about the Front Row Audio System emitting microwave radiation on another radio frequency and how the students were encouraged to use their cell phones in class. Now Tyler has suffered 8 injuries this year alone from the accumulative and prolonged exposure to the Microwave Radiation from two different frequencies. As a temporary solution Tyler was pulled out of his homeroom and placed in a separate room downstairs. Tyler was really upset, frustrated and angry about being downstairs for 5 hours a day with no contact with any of his peers.



He feels he was dumped downstairs and forgotten, left there to do his work on his own. He was frustrated that he can go a day or two without even having anyone checking on him to see how he's doing. Tyler really wants to be back in a classroom with his peers, to have the teacher in the room to actually teach him and to ask questions when help is needed, like all other Grade 6 students. He



has now lost contact with all his friends. Tyler enters and exits the school as quickly as possible, keeping his head down to avoid eye contact in fear of being questioned about the situation. Tyler has expressed feelings of embarrassment, humiliation, loneliness, anxiety and is losing hope of ever finding a school where he can make friends. Tyler is a shy, gentle boy who just wants to be accepted by his friends and be a part of the school community, something he has yet to experience. Tyler has a fundamental right to participate and socialize with his peer group and to build life skills that include communication, cooperation, and team-ship. These foundational components help to form a person into their adulthood and extend long beyond school years. Tyler has yet to experience a sense of connectedness and school community that is so crucial for his academic and adult life.

As of April 20th 2016, Tyler has been attending school for 1-½ hours on Wednesdays in the room downstairs with a teacher one-on-one. The rest of the week he is sitting at home when he should be participating in activities with his friends at school. Tyler initially was so excited about attending Middle School this year only to have his expectations crushed. Every attempt to attend school has resulted in another painful injury from the microwave radiation that blankets the inside of the school. Tyler should be provided with reasonable accommodation, affording him inclusion and dignity while building his self-esteem and personal growth, but sadly he has only experienced the burden of isolation.

Tyler has the right to access public education in a safe learning environment free of known carcinogens, especially when safer hard-wired connections to the Internet already exist. On June 22, 2016, our appeal to the Board of Trustees in the Saanich School District to turn off one Wi-Fi transmitter and the Front Row Audio System and to set a policy of no "Cell Phone Use During School Hours" in one section of the school at no cost to the school, was denied and dismissed. Tyler has nowhere to go to school for Grade 7.

8-year-old girl made EHS by classroom WiFi

Comment (27 July 2016):

"My daughter Noa also has nowhere to go for school next year, for the same reason as Tyler. Noa is 8 (almost 9) and developed EHS this year after repeated, heavy classroom exposures to radiofrequency radiation. Several months ago she came home complaining to me that she got sick each time the smart board was turned on. I went to the classroom myself and measured 125,000 microwatts per sq meter with the smart board on, in this tiny classroom. She has since become severely electrosensitive, and we understand completely the social isolation."



WiFi intolerance: "extreme physical reaction" "like having a stroke"

Leonie Southern can no longer live near WiFi because of severe health effects caused by her electromagnetic hypersensitivity. In 2014 she and her husband had to move from their home in Bermagui on the NSW south coast to a farm further inland, to escape any WiFi. Ms Southern said: "So many times I haven't anticipated it [WiFi symptoms], haven't even known there was going to be a problem, and it occurs. I've often been told by various people that it's all in your head. I wish it was all in my head because then maybe it could be cured." She describes the problem as "the asbestos of our era". When interviewed for this story in a remote rural environment away from sources of WiFi, Ms Southern appeared to be perfectly normal. But when interviewed the following day after returning to her home in town, there was an extreme physical reaction to the urban environment. "When I got out of the car it hit. It's a dreadful feeling. I guess it's much like having a stroke," she said. Within minutes, Ms Southern's speech was becoming slurred as the left side of her mouth pulled upwards. She said she first started to feel the sensation as her husband John drove her into town, passing through areas where she was being exposed to WiFi transmissions. As Ms Southern entered the house, the symptoms developed rapidly and the interview could only last a few minutes. "The only thing is to get out of the area, and by tomorrow I should be all right," she said. Ms Southern said she



just wanted a solution and to be free of symptoms. "To go back to a normal life would be wonderful. And it's just getting worse," she said. Meanwhile, she said increasing sources of WiFi transmissions in rural areas were forcing her to move further away from settlements. Ms Southern did not want to put herself through the distress of a harmful provocation trial. "However, I would be prepared to participate in a study trialling effective screening to block EMR," she said. (Bill Brown: "Woman claims severe health problems are caused by wi-fi but international studies find no link" ABC South East NSW Australia, 12 September 2016)

'My electro-sensitivity hell'

In recent decades the health of Delia O'Brien, aged nearly 80, from Rathmore, has started to suffer at an increasing rate. She's now on a one-woman campaign to raise awareness of what she sees as the very real threat to our health. Her concern is two-fold: the impact on her own health as someone who is ES, but also the stealthier impact on the health of the wider population from proliferating radio signals. Delia told The Kerryman: "It's not an easy thing to convince people about. As someone with ES it is getting so bad for me now that to get to Killarney I have to drive via Knocknagree and Gneeveguilla to avoid masts and I daren't go near the town centre anymore, with the EMF generated by masts, CCTV and all these devices today." She's been trying to convince successive Irish governments for years of the threat to the general population. As someone deeply sensitive to EMF, Delia looks on herself as something like a canary in the mine for the wider populace - becoming physically sick from what has been described as an 'electrosmog' that she fears could well be taking a steady, low-level toll on many. "I've written to the National Parents' Council on the introduction of WiFi to schools which I think is a disgrace. God only knows what effect it has on children at such a crucial stage in their physical development. If ES people's symptoms are an indication of concern for all, it's a conversation Ireland needs to be having. It is estimated 1% of the population is ES, which represents over 40,000 people in this country alone."

(Dónal Nolan "My electro-sensitivity hell" 6 August 2016)



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Thank you. Your contribution will make a difference.

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.

ElectroSensitivity UK

www.es-uk.info

What does ES-UK do?

- ES-UK runs a helpline to support people with ES, their friends and family, to ensure there is a sympathetic ear to hear individuals' experiences and to offer information and practical help, where possible.
- We have information on ES, what it is, and what you can do about it, to enable you to improve your health and explain to others, including your medical contacts, the real nature of your condition.
- We support a directory of services and products suitable for ES people.
- We send out a quarterly newsletter keeping people informed about others' experiences, with tips from sufferers about what helps them, information about ES in the workplace and at home, and national and international news, including new research.
- We maintain a website with information and news, for those who can use computers.
- We do our best to educate the medical profession about ES.
- We do our best to educate Public Health England (PHE) and its Advisory Group on Non-ionising Radiation (AGNIR), the two government groups responsible for the UK's high levels of exposure which cause ES.
- We do our best to educate officials involved with benefits, disability issues, employment, hospitals, housing, public services, schools, shopping and transport.

Contact

For more information about ES-UK, write to:
BM Box ES-UK, London, WC1N 3XX
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ES-UK is an independent charity founded in 2003.
It is financed by donations. Registered No. 1103018.

ES-UK, September 2013

Electro-sensitivity (ES) is a condition which can develop when people are exposed to things like computers, cordless phones, low energy lighting, mobile phones, mobile phone masts, powerlines, smart meters, substations and WiFi.



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

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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

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**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