

Factual proof of the dangers of wireless radiation, including 5G, against the 'unscientific' claims of lobbyists following ICNIRP, AGNIR and COMARE

WIRELESS RADIATION HEALTH EFFECTS ARE PROVEN, NOT STILL IN DOUBT

(i.e. Proved beyond reasonable doubt)

FACTS:

Wireless radiation causes electromagnetic hypersensitivity (EHS), infertility, neurological and cardiovascular damage, DNA breaks and cancer.

These proven facts are widely accepted by a large majority of scientists.

FALSE CLAIMS:

There is no convincing evidence of non-thermal effects because the scientific evidence is still under dispute and requires further research and discussion.

These false claims are made by the wireless industry, groups lobbying for it, and some of the media, following the ICNIRP, AGNIR and COMARE, using the well-tried means of casting doubt, cherry-picking, presuming unlikelihood and vilifying opponents.

The majority of scientists, as in the EMF Call, describe these false claims as 'unscientific'.

EXPLANATION:

EHS proved

It has been known since 1932 that radio frequency (RF) wireless radiation causes Electromagnetic Hypersensitivity (EHS) and this was proved in the USSR in the 1960s. Since then it has been proved that EHS is different from a nocebo effect or the separate condition Electrophobia. Objective biological markers have also been established, including cerebral blood perfusion scans showing hypoperfusion, 3d fMRI scans showing brain damage, genetic haplotypes up to ten times more common in people with EHS, along with cancers and many other changed biomarkers, all specific symptoms of EHS.

Cancer proved

Since 1953 it has also been known that RF radiation causes cancer, as proved in large studies, such as by the USAF and the Wireless Technology Research (whereas the Danish cohort study was flawed by omitting all contract heavy phone users). The recent NTP and Ramazzini studies, to see if radiation as from phones/masts causes cancer, found 'clear evidence' (the highest category) that it does. This 'sufficient animal evidence', plus strong evidence of proven mechanisms, means RF radiation meets the requirements for it to be re-classified, from a class 2B possible human carcinogen to a class 1 certain.

Infertility proved

Numerous studies show that RF radiation reduces fertility, especially male. Oxidative stress caused by RF radiation is one established pathway.

Proven facts: no doubt, dispute or discussion

The fact that RF radiation has thus been proved to be a cause of EHS, cancer and infertility, along with other neurological and cardiovascular damage, means that these established scientific facts are no longer in doubt, under dispute or for discussion. There is no middle way. Either Galileo was right or wrong; the sun cannot orbit the earth for only six months because a committee thinks that astrophysics would be better this way. The proper approach is to accept the science and then challenge the industry technicians to find a way to make the technology safe – which they usually can.

CURRENT LACK OF PROTECTION: SHORT-TERM HEATING GUIDELINES

The false claims of ICNIRP, endorsed by WHO etc., began with Schwan's mistake of 1953, when he wrongly claimed that the only adverse effect of RF radiation was heating.

Exercise can also raise the body temperature one degree within six minutes, but without the proven effects of EHS, infertility and cancer which RF radiation can cause.

- **UK:** Government employees allegedly could not admit that Schwan was wrong, so they could never engage with the proven science and majority-viewpoint scientists. Sir Richard Doll, at first acclaimed for showing cancer from tobacco, was later paid to defend polluting industries and became the first chair of AGNIR, a former UK government agency, which consistently denied the actual science on electromagnetic (EM) fields. AGNIR was disbanded in 2017, after its 2012 report was shown as unsafe and inaccurate (Starkey, ref.). The UK government's refusal from 1990 to accept established EM bioeffects ranks as one of its worst cases of scientific failing. The UK government needs to break away from the minority viewpoint of ICNIRP and WHO.
- **USA:** The 1964 finding, that USSR research was a decade ahead of the US, led to the DARPA Project Pandora's discovery in 1974 that EMFs control calcium flux, and thus the significance of VGCCs. Since 1974 industry lobbyists have been sensitive about VGCCs as a proven EM non-thermal effect, although they seem less critical of other proven non-thermal biomechanisms. Prof. Martin Pall of Washington State University developed this US government finding, showing how VGCCs apply to many bioeffects and contribute to EHS and other ES symptoms. He is well regarded by the experts and widely published, but criticised by some industry lobbyists. This proven EM bio-mechanism was shown in a UK study confirming electrosensitivity, and the synergy of allergens with EM exposure (Puri BK et al. *J Compl. Integr Med.*, 2019).
- **UK still following 'unscientific' advice on Electrosensitivity (ES) and EHS**
Although EHS was described in 1932 and proved in the 1960s in the USSR, the UK government and its COMARE still follows the ICNIRP. They deny EHS' existence by ignoring the many studies confirming EHS, cherry-picking negative studies, ignoring studies showing EHS is not a nocebo effect, and confusing EHS with the different condition of Electrophobia. Given that up to 79% of the population may be ES, 1.2% (800,000 people in the UK) severely affected, and some 0.65% have lost access to work or school because of the high levels of RF radiation, the UK government clearly needs to abandon the ICNIRP's 'unscientific' advice, and follow the proven science.

Use scientific Bioinitiative reports etc, not 'unscientific' ICNIRP and WHO

- Some of the most accurate reviews and analysis of the proven dangers of EM radiation are: Bioinitiative Reports (2007, 2012), EUROPAEM EMF Guideline 2016.
- The minority-viewpoint opinions of the ICNIRP, SCENIHR and AGNIR are invalid and unprotective, based on Schwan's 1953 mistake and cherry-picking studies.
- According to majority-viewpoint experts, WHO's ICNIRP 2018 draft guidelines are 'unscientific, obsolete and do not represent an objective evaluation of the available science ... They ignore the vast amount of scientific findings that clearly and convincingly show harmful effects at intensities well below ICNIRP guidelines.' ([EMF Call](#))
- The WHO EMF Project is led, not by a medical doctor experienced in diagnosing real EHS, as would be expected, but by a trained electrical engineer, as befits the role of the WHO, legally subservient since 1959 through the IAEA to the radiation industry.
- 5G, like much RF technology, deployed 24/7 on unaware or non-consenting people, has not been tested for safety pre-market, unlike pharmaceutical products.

CONCLUSION: NEED FOR LONG-TERM SAFETY GUIDELINES

Safeguarding the public is not a matter of further research or discussions between the majority-viewpoint scientists and the minority-viewpoint industry lobbyists.

Rather, it is a matter of education, scientific honesty and action: understanding and applying the published literature on the established effects of EM exposure.

Need for long-term safety guidelines, not short-term heating ones

- Although **zero man-made radiation** is the only proven safety limit because of the damage from modulation as well as intensity, a start should be made with existing long-term biological safety guidelines. These help protect all life from the proven long-term effects of RF radiation below heating levels. This includes people sensitive to RF radiation: up to 79% of the population (53,000,000 people in the UK) subconsciously, and 1.2% (800,000, similar to Alzheimer's) severely affected.
- **People with ES and EHS** are some of the principal stakeholders as regards the level of RF radiation or electrosmog. The current situation for people with EHS is repeated suffering, losing their health, jobs, income, family and friends, with no help from industry lobbyists and government employees who still follow ICNIRP and WHO's minority viewpoint, instead of following the science proved beyond reasonable doubt.
- Government should adopt appropriate **long-term biological guidelines** so that the industry can develop the technology necessary to meet those targets – apparently some mobile phone companies long ago took out patents for reducing EM exposures for this very purpose, when long-term guidelines eventually come in. It is a common-sense matter of accepting the proven science and finding a practical solution. If other toxins like lead, radon gas, asbestos and tobacco smoke can be sufficiently restricted, protected against, or removed from the environment to make life tolerable for people, then scientists can also find a way of dealing with toxic EM exposures.
- The **EU Parliament** voted 522 to 16 on September 4 2008, over eleven years ago, for member states to grant people with EHS 'adequate protection as well as equal opportunities'. The UK has not yet acted on this requirement. Long-term guidelines should provide considerable protection for people with EHS, but the UK still has only guidelines averaged over 6 or 30 minutes based on Schwan's invalidated 1953 hypothesis of short-term heating, rather than the appropriate long-term guidelines.

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| • <i>Background levels:</i> | 0.00002 V/m | (0.000001 $\mu\text{W}/\text{m}^2$) |
| • <i>Full safety level (Zero Emissions):</i> | 0.00002 V/m | (0.000001 $\mu\text{W}/\text{m}^2$) |
| • <i>Long-term international biological guidelines:</i> | 0.006-0.2 V/m | (0.1-100 $\mu\text{W}/\text{m}^2$) |
| • <i>Short-term ICNIRP heating guidelines (1.8GHz)</i> | 61 V/m | (9,200,000 $\mu\text{W}/\text{m}^2$) |

[Bionitiative Report](#)

[EUROPAEM EMF Guideline 2016](#)

[IGNIR 2018](#) [Seletun 2010](#)

[EMF Call](#)

[International EMF Scientist Appeal](#)

[5G Appeal](#)

[International Appeal: Stop 5G](#)

[Aarhus Convention](#)

[P Bandara & DO Carpenter](#)

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[Prof. Martin Pall](#)

[Selected Studies on ES & EHS](#)

[Dr Sarah Starkey](#)