

5G Health Hazards: Factual Microwave Radiation Research People Need to Know Before Embracing 5G

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Region: [USA](#)

Theme: [Science and Medicine](#)

Microwave technology seems to have been around ‘forever’, so that’s probably why very few tech consumers question its safety. However, consumers should know the latest and most ‘coveted’ update to technology is the Internet of Things, which will become “Big Brother Personified.”

Not only will the *IoT* report back (i.e., spy?) to [high-speed computer data centers](#) consumers EVERY activity, *IoT* will super-saturate your physical body and brain with extremely rapid oscillation Gigahertz (GHz) frequencies needed to implement *IoT*, which probably will become physically uncomfortable, as being reported by current research studies.

The U.S. military has pressed hard for each generation of microwave updates to the point where 5G is their “war weapon” that will be pressed in to civilian use for higher speed Wi-Fi.

Personally, I’ve been a health issues researcher/writer/author since the late 1970s and the plans for expanded microwave technologies, e.g., *5G and higher*, cause me grave concern, especially because of the resolute lack of transparency concerning the harms from its thermal and non-thermal waves, *which deliberately have been secreted from consumers*—similar to what the tobacco industry and other vested interests have done in order to mainstream technologies harming human health, wildlife, the environment and ruined the Planet’s hydrologic system by implementing *Solar Radiation Management*, which some refer to as “chemtrails.”

With the last paragraph’s concerns in mind, I’ve gotten together an anthology of probable lesser-known Microwave, ELF, EMF, RFR research I think consumers should know—and save—to understand how the proverbial wool has been pulled over your eyes about a technology you have fallen in love with; become addicted to; and are clamoring for more and higher generation speeds, while really not knowing nor understanding the harm it is doing to you and especially the children, who are the most vulnerable to cellular damage.

A Retrospective Microwave Research Anthology

Biological Effects and Health Hazards of Microwave Radiation, Proceedings on an International Symposium, October, 1973 [October 15-18, 1973, Warsaw, Poland]

Reviewed by [Emanuel Landau](#)

Biological Effects and Health Hazards of Microwave Radiation, Proceedings on an

International Symposium, October, 1973. Poland Government, WHO and USHEW. Polish Medical Publishers.

347 pp. 1974. \$10 U.S.A., \$12.50 Foreign. NTIS PB 239-554.

“This volume represents the proceedings of the only truly international symposium on the effects of microwave radiation which was held in Warsaw in October, 1973. In addition to the presented papers of the participants, the work contains succinct summaries of the discussions and a list of sound conclusions and recommendations. Differences in research findings are not glossed over. Particularly impressive to this reviewer is the absence of ideological statements and judgments. It is a “must” book for any serious student of the health effects of exposure to microwave radiation.

“While this publication does not and cannot present definitive findings, it does represent a valuable state of the art review with all the inconsistencies and disagreements noted and discussed.

A special merit is that it makes possible more details of the studies done by the leading research investigators for both high and low level exposure situations than has been previously available. Even more detail is needed for proper assessment, but this symposium clearly will contribute to the necessary reconciliation of the wide divergence of research results reported for cataractogenesis and “microwave neurosis” as well as for other stated adverse effects.”

Source: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1775882/pdf/amjph00794-0077c.pdf>
Am J Public Health. 1975 July; 65(7): 751. PMCID: PMC1775882

[CJF emphasis]

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1775882/?page=1>

Session A. *General Effects of Microwave Radiation* (80 pages)

<https://www.elettrosensibili.it/wp-content/uploads/2016/04/biologic-effects-health-hazards-of-mw-a1.pdf>

Session A continued (27 pages)

<https://www.elettrosensibili.it/wp-content/uploads/2016/04/biologic-effects-health-hazards-of-mw-a2-1.pdf>

Session B. *Influence of Microwave Radiation on the Nervous System and Behavior* (23 pages)

<https://www.elettrosensibili.it/wp-content/uploads/2016/04/biologic-effects-health-hazards-of-mw-b1.pdf>

Session B continued (20 pages)

<https://www.elettrosensibili.it/wp-content/uploads/2016/04/biologic-effects-health-hazards-of-mw-b2.pdf>

Session C. *Effects of Microwave Radiation at the Cellular and Molecular Level* (40 pages)

<https://www.elettrosensibili.it/wp-content/uploads/2016/04/biologic-effects-health-hazards-of-mw-c1.pdf>

Session C continued (10 pages)

<https://www.elettrosensibili.it/wp-content/uploads/2016/04/biologic-effects-health-hazards-of-mw-c2.pdf>

Session D. *Measurements of Microwave Radiation* (58 pages)

<https://www.elettrosensibili.it/wp-content/uploads/2016/04/biologic-effects-health-hazards-of-mw-d.pdf>

Session E. *Occupational Exposure and Public Health Aspects of Microwave Radiation* (48 pages)

<https://www.elettrosensibili.it/wp-content/uploads/2016/04/biologic-effects-health-hazards-of-mw-e.pdf>

Session F. *Presentation and Discussion of Session Reports, Conclusions (Including Future Research Needs) and Recommendations* (27 pages)

<https://www.elettrosensibili.it/wp-content/uploads/2016/04/biologic-effects-health-hazards-of-mw-f.pdf>

Session I. *List of Participants* (15 pages)

<https://www.elettrosensibili.it/wp-content/uploads/2016/04/biologic-effects-health-hazards-of-mw-i.pdf>

A Mother's Tragic Story about In-school Wi-Fi Damage to her 15-year-old daughter, who suffered with EHS from Wi-Fi in school, which finally led to the daughter's eventual suicide: [Why Die for Wi-Fi? My Child Did – Will Yours?](#) / Debra Fry, May 3, 2016

A pioneer researcher, the late Dr. Ross Adey, in his last publication in Bioelectromagnetic Medicine (P. Roche and M. Markov, eds. 2004) concluded:

“There are major unanswered questions about possible health risks that may arise from exposures to various man-made electromagnetic fields where these human exposures are intermittent, recurrent, and may extend over a significant portion of the lifetime of the individual.”

“Epidemiological studies have evaluated ELF and radiofrequency fields as possible risk factors for human health, with historical evidence relating rising risks of such factors as progressive rural electrification, and more recently, to methods of electrical power distribution and utilization in commercial buildings. Appropriate models describing these bioeffects are based in non-equilibrium thermodynamics, with nonlinear electrodynamics as an integral feature. Heating models, based in equilibrium thermodynamics, fail to explain an impressive new frontier of much greater significance.

..... Though incompletely understood, tissue free radical interactions with magnetic fields may extend to zero field levels.” (2)

Source: BioInitiative 2012*, Section 1 (Summary for the Public), [Pg. 7/22 of 1479](#)

Children are at increased risks from Radiofrequencies (RFs) emitted by microwaves according to the Presidential Cancel Panel 2010 and the American Academy of Pediatricians.

“There is little doubt that exposure to ELF causes childhood leukemia.”

Source: BioInitiative 2012*, [Pg. 8/23 of 1479](#)

What is remarkable about studies on DNA, genes and proteins and EMFs is that there should be no effect at all if it were true that EMFs is too weak to cause damage. Scientists who believe that the energy of EMFs is insignificant and unlikely to cause harm have a hard time explaining these changes, so are inclined to just ignore them. The trouble with this view is that the effects are occurring. Not being able to explain these effects is not a good reason to consider them imaginary or unimportant.

Source: BioInitiative 2012*, Section 1, [Pg. 16/31 of 1479](#)

Sixteen nations: Australia, Austria, Belgium, Canada, Cyprus, Finland, France, Germany, India, Israel, Italy, Namibia, Russia, Spain, Switzerland, and the United Kingdom have ruled the thermal RF radiation levels set by the National Council of Radiation Protection (NCP), the International Commission on Non-Ionizing Radiation Protection (ICNIRP), and the U.S. Federal Communications Commission (FCC) are obsolete and do not adequately protect the public, so they are taking action to mitigate public risks.

Source: [BioInitiative 2012](#)

“The IARC Monographs classification of Radiofrequency Electromagnetic Fields (RF-EMF) covers the entire radiofrequency segment of the electromagnetic spectrum (30 kHz-300 GHz). Within this spectrum, the electromagnetic fields around (or the radiation emitted by) mobile telephones represent the most intense and most wide-spread exposure situation, for which a small increase in risk for glioma and acoustic neuroma has been found in the group of ‘heavy users’. Other devices that emit the same type of RF radiation - base-station antennas, radio/tv antennas, WiFi stations, smart meters - fall under the same evaluation. However, because the exposure levels for many of these other devices and exposure situations are so much lower than the exposure to someone who has a functioning cell phone against her/his ear, the risk will be considerably less (although the hazard still exists).” [CJF emphasis]

Source: BioInitiative 2012*, Section 22 (Precaution in Action - Global Public Health Advice Following BioInitiative), [Pg. 28/1325 of 1479](#)

The US Government Accountability Office published a report in 2012 urging the US Federal Communications Commission to revisit the outdated safety standards for the exposures from wireless devices. (19)

Source: BioInitiative 2012*, Section 22, [Pg. 18/1315 of 1479](#)

The Report noted that the FCC's RF energy exposure limit may not reflect the latest research.

Source: BioInitiative 2012*, [Section 22 Pg. 19/1316 of 1479](#)

Adverse health effects occur at levels much lower than what the FCC claims to be safe.

Non-thermal adverse health effects from microwave RFs have been documented at extremely low power densities in these ranges: *microwatt, nanowatt, picowatt and femtowatt.*

- A microwatt (μW) equals one millionth of a watt
- A nanowatt (nW) equals one billionth of a watt
- A picowatt (pW) equals one trillionth of a watt
- A femtowatt (fW) equals one quadrillionth of a watt

[\[https://en.wikipedia.org/wiki/Watt\]](https://en.wikipedia.org/wiki/Watt)

"EMF exposure can change gene and/or protein expression in certain types of cells, even at intensities lower than ICNIRP recommended values." [CJF emphasis]

Source: BioInitiative 2012*, Table 1-1 BioInitiative Report Overall Conclusions, *Section 5 Genotoxicity* [Pg. 2 of 16](#)

Dr. Henry Lai, PhD, Professor Emeritus of Bioengineering, University of Washington, discovered in 1995 damage to rat brains at Radiofrequency radiation levels deemed as 'safe' by the FCC.

Research scientist George Carlo's independent research established wireless radiation RAISED the risk of brain cancer, which led the cellular communications industry to discredit Carlo's work.

The National Toxicology Program (NTP) cell phone radiation study data released in March of 2018 provided evidence that cell phone microwave radiation caused cancers in rats, e.g., rare schwannoma heart tumors and brain tumors.

"The study looked at only 2G and 3G frequencies, which are still commonly used for phone calls. It does not apply to 4G or 5G, which use different frequencies and modulation, he [John Bucher, a senior scientist with NTP] said." [CJF emphasis]

Source: [Reuters](#)

Based upon current research findings, the FCC's 1996 recommended RF limits/safety

standard of 0.6mW/cm² for 30 minutes of exposure time is seriously flawed and must be corrected to reflect dangers inherent from non-ionizing RF radiation.

Proof of the above statement are 27 citations of scientific studies reporting adverse health effects at levels less than 0.00063 mW/cm². These studies can be found enumerated at <http://www.bioinitiative.org/conclusions/>. There are too many to list here, but it is important to list:

DEFINING A NEW 'EFFECT LEVEL' FOR RFR

On a precautionary public health basis, a reduction from the BioInitiative 2007 recommendation of 0.1 μ W/cm² (or one-tenth of a microwatt per square centimeter) for cumulative outdoor RFR down to something three orders of magnitude lower (in the low nanowatt per square centimeter range) is justified.

A scientific benchmark of 0.003 μ W/cm² or three nanowatts per centimeter squared for 'lowest observed effect level' for RFR is based on mobile phone base station-level studies. Applying a ten-fold reduction to compensate for the lack of long-term exposure (to provide a safety buffer for chronic exposure, if needed) or for children as a sensitive subpopulation yields a 300 to 600 picowatts per square centimeter precautionary action level. This equates to a 0.3 nanowatts to 0.6 nanowatts per square centimeter as a reasonable, precautionary action level for chronic exposure to pulsed RFR.

These levels may need to change in the future, as new and better studies are completed. We leave room for future studies that may lower or raise today's observed 'effects levels' and should be prepared to accept new information as a guide for new precautionary actions.

Source: BioInitiative 2012 "A Rationale for Biologically-based Exposure Standards for Low-Intensity Electromagnetic Radiation" [Conclusions](#)

However, there are several specific studies performed using various low level μ W/cm² I'd like to bring to your attention:

1 - [0.13 \$\mu\$ W/cm²](#)

Radiofrequency radiation from 3G cell towers decreased cognition, well-being. Zwamborn, 2003.

2 - [0.168-1.053 \$\mu\$ W/cm²](#)

Irreversible infertility in mice after 5 generations of exposure to Radiofrequency radiation from an 'antenna park'. Magras & Zenos, 1997.

3 - [0.16 \$\mu\$ W/cm²](#)

Motor function, memory and attention span of school children affected in Latvia. Kolodynski, 1996.

Resource: *Power Density: Radio frequency Non-Ionizing Radiation* [14 pages with hundreds of citations]

4 - 60 to 100 μ W/m²

Whole human body chronic exposure to base station Radiofrequencies showed increased

stress hormones; dopamine levels were substantially decreased; there were higher levels of adrenaline and nor-adrenaline; and chronic physiological stress was produced in cells after 1.5 years. Buchner, 2012.

Source: [Reported Biological Effects of RF & Microwave Radiation Power Density \$\mu\text{W}/\text{m}^2\$](#)

5 - Interestingly, between 2007 and mid-2012, sixty-nine (69) new ELF-EMF study papers were published regarding neurological effects from ELFs-EMFs. Of those 69 papers, 93% (64) show adverse effects, whereas only 5 (7%) show no adverse effects. Lai, 2012.

Source: <https://ecfsapi.fcc.gov/file/7520939118.pdf> [Pg. 10 of 17 pages]

6 - Numerous sperm studies have been replicated showing the adverse effects on sperm quality, motility and pathology in men who use and wear live cell phones on their bodies, PDA or pagers on their belts or in a pants pocket. Here's one example:

See <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4074720/>

CONCLUSIONS

[a] *Long-term semen exposure in the area of mobile phone RF-EMR leads to a significant decrease in the number of sperm with progressive movement and an increase in those with non-progressive movement.*

[b] *Prolonged direct mobile phone exposure may bring about sperm DNA fragmentation*

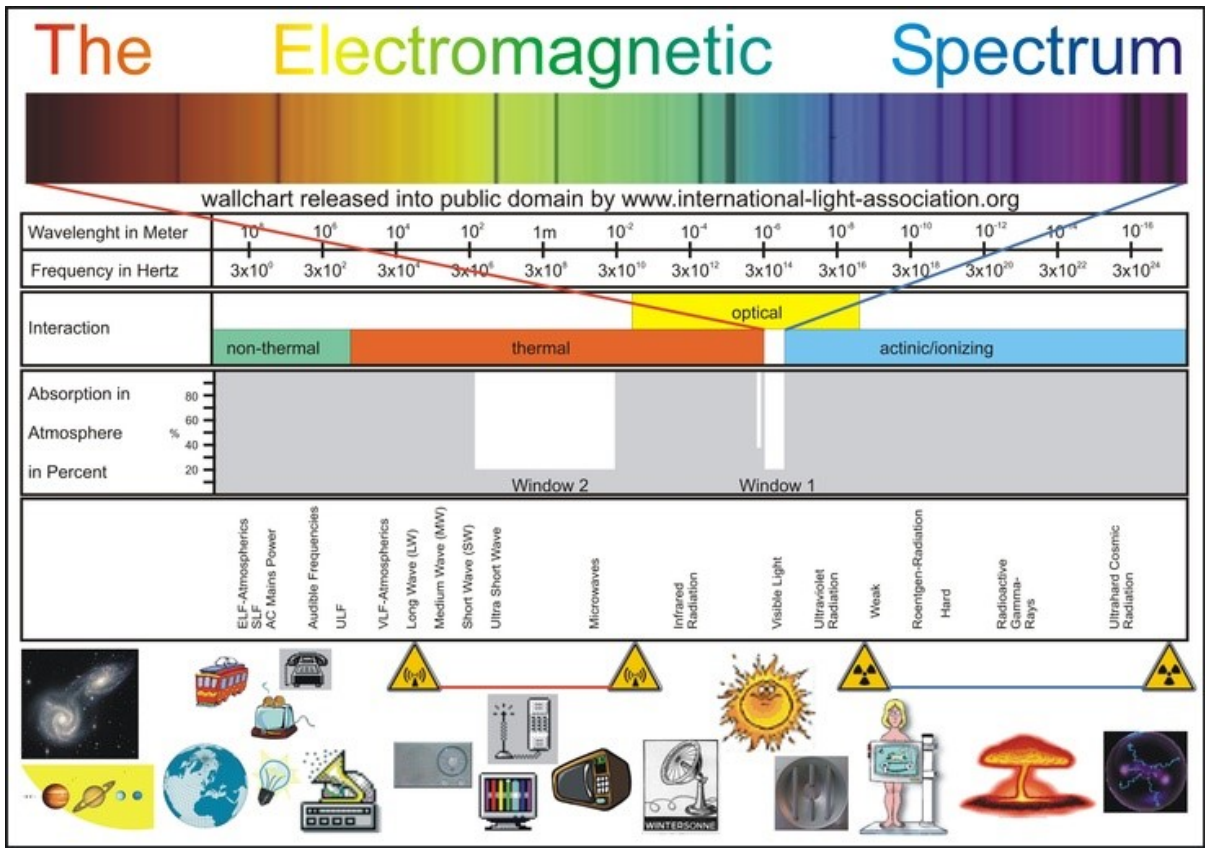
[c] *For men readying themselves for fatherhood, especially when registered fertility problems exist, it would be better to avoid holding a mobile phone in a trouser pocket for long periods of time.*

Other papers reporting sperm being affected by RFs-EMRs include: Agarwal et al, 2008; Agarwal et al, 2009; Wdowiak et al, 2007; De Iulius et al, 2009; Feyes et al, 2005; Aitken et al, 2005; Kumar, 2012.

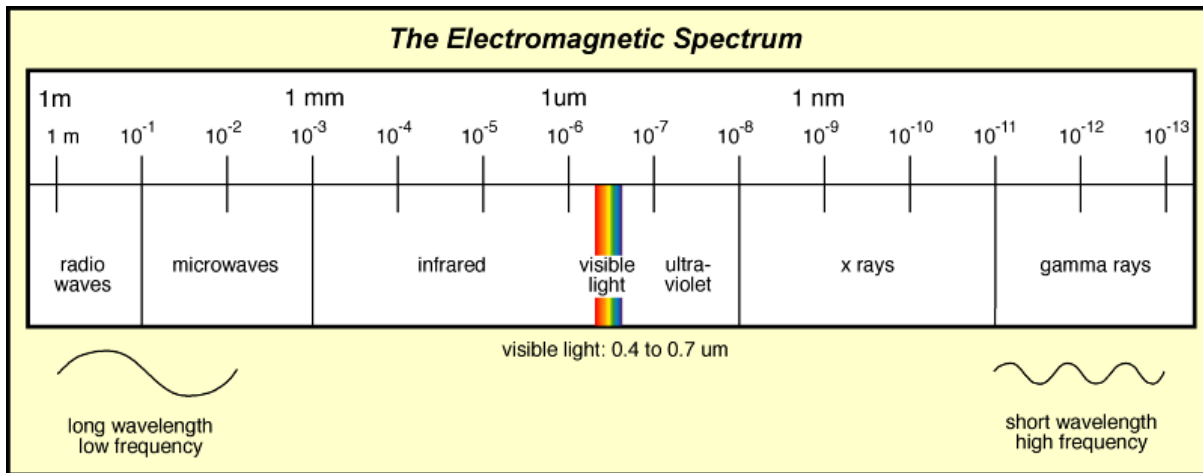
There are in excess of 4,000 scientific studies reporting biological and adverse health effects from non-thermal radiation exposure and yet the FCC and microwave trade associations deny them, plus do not factor those findings into establishing correct ELF-EMF-RFR safety guidelines.

Could be it there are no safe parameters that can be met relative to man-made microwaves non-thermal non-ionizing radiation?

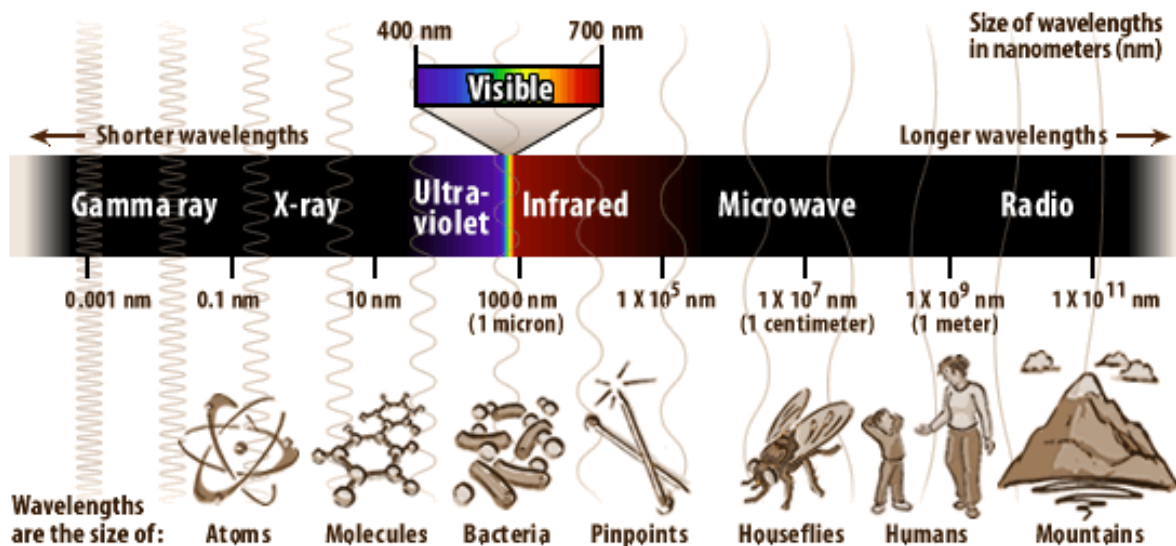
The charts below give various interpretations of the Electromagnetic spectrum.



[Source](#)



[Source](#)



[Source](#)

Hat tips and many thanks go to Richard Myers and Casper Gripenberg for their generous sharing of research and information in the preparation of this “anthology” of older and currently-suppressed research regarding microwave radiation effects.

Resource:

**BioInitiative 2012 / A Rationale for Biologically-based Exposure Standards for Low-Intensity*

[Electromagnetic Radiation BioInitiative Working Group 2012](#)

Catherine J Frompovich ([website](#)) is a retired natural nutritionist who earned advanced degrees in Nutrition and Holistic Health Sciences, Certification in Orthomolecular Theory and Practice plus Paralegal Studies. Her work has been published in national and airline magazines since the early 1980s. Catherine authored numerous books on health issues along with co-authoring papers and monographs with physicians, nurses, and holistic healthcare professionals. She has been a consumer healthcare researcher 35 years and counting.

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