

REFLECTIONS AND RECOMMENDATIONS ON COVID-19, 5G, & WIRELESS RADIATION

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(NB: For the purposes of this statement, 5G includes all iterations of the densification of wireless infrastructure and data transmissions – 4G+, 5GE, and 5G, with and without the addition of millimeter wave frequencies.)

COVID-19 and 5G

As of this date, there is no definitive scientific evidence that COVID-19 is *caused* by 4G, 5G or other sources of electromagnetic radiation. There is, however, ample evidence that [radio-frequency/microwave radiation](#) – aka wireless radiation – from cell towers, cellphones, WiFi, cordless phones, smart appliances, smart homes, smart cities etc. can [adversely impact the immune system and overall health](#). Thus, exposure to electromagnetic radiation is a significant factor to consider when addressing the rapid spread of COVID-19, as well as decisions around the buildout of wireless infrastructure vs. safer wired connections.

History of Electromagnetic Radiation and Health

Radiation exposure has been a concern for health researchers and policy makers beginning with [radar during WWII](#). Yet for the most part, the public remains unaware of the growing body of [independent science](#) showing adverse health impacts from wireless radiation.

Since the 1980s, the telecommunications industry has purchased partial or [majority ownership privileges](#) in major [media](#) outlets. Some outlets previously known for their objectivity have been conspicuously silent about harms from wireless radiation, even as government and independent researchers are finding links between wireless radiation and cancer, neurodegenerative diseases such as Parkinson's and Alzheimer's, birth defects, learning disabilities, headaches, sleep disturbances, and autoimmune disorders. As a result, the public has, for the most part, accepted our wireless world as a convenient and often intriguing way of life, and/or the inevitable way of the future – “Can’t stop progress”. And governments’ collective silence has offered a presumption of safety.

For decades, telecom companies have lobbied their governments to pass laws favorable to industry, including some areas where citizens are even denied the right to object to cell tower placement on the basis of health. We can’t help but ask, “Why would industry influence governments to exempt health issues for wireless facilities if radiofrequency radiation (RFR) is

safe?” And we can’t help but notice that 5G infrastructure – a quantum technological leap – is being rolled out around the world at lightning speed before undertaking [a single safety study](#).

Has Electromagnetic Radiation Contributed to the Spread of COVID-19?

[Wuhan](#) was one of the [first five cities](#) in China to fully implement 4G+/5G and was also a viral hotspot. Were those who lived in Wuhan more vulnerable to COVID-19 due to 5G? What about the Lombardy Region of Italy, South Korea, Spain, and New York? Shelter-in-place measures, urban density, air pollution, public transit, and other factors [likely impact](#) the spread or containment of COVID-19. But does 5G contribute above and beyond these factors? Is 5G the proverbial ‘straw that broke the camel's back’ when added to the many other environmental toxins we are inundated with due to policies that put profit before health and well-being?

There is much research linking wireless radiation with oxidative stress and adverse impacts on immune function (See, [1](#), [2](#), [3](#)). [Professor Klaus Buchner](#), physicist in Germany and Member of European Parliament [states](#), “There is clear scientific evidence that the spreading of viruses is accelerated by electromagnetic radiation.” Key points:

- [Immune](#) suppressing and immune disturbing effects of EMF
- Oxidative stress linked to [adverse immune effects](#)
- Possible EMF acceleration of [replication](#) of viruses

Ronald N. Kostoff, Research Affiliate, School of Public Policy, Georgia Institute of Technology, explains in his [recent monograph](#) that radio-frequency radiation typically acts in combination, one increasing the impacts of the other rendering the immune system “...unable to counteract exposure to viruses as nature intended.”

Kostoff goes on to say in the same monograph: *“This gets to the link between wireless radiation exposure and the latest coronavirus pandemic. Wireless radiation adversely affects the immune system..., and a weakened immune system increases the chances that exposure to the coronavirus (or any virus) will translate into symptoms/disease.”*

In addition, there are other serious health effects from Radio-frequency Microwave Radiation. A 10-year \$30 million dollar study from the [National Toxicology Program](#) (NTP) funded by the U.S. government, and research from the [Ramazzini Institute](#) showed clear evidence of cancer and adverse impacts to the brain and heart from previous generations of wireless.

The Scientific Committee on Health, Environmental and Emerging Risks (SCHEER) which provides scientific advice to the European Commission regarding public health, issued a [statement](#) identifying 5G impact as “high,” and that “the lack of clear evidence...of exposure guidelines to 5G technology leaves open the possibility of unintended biological consequences.”

At a time when the entire world is struggling with a pandemic, is it wise to roll out 5G? After all, an entirely new generation of wireless technology with many novel and [untested features](#) such as higher frequencies, more cellphone antennas in closer proximity to homes, schools, businesses, public buildings and places of worship, phased array antennas, and Massive Input Massive Output (MIMO), *is a dramatic technological leap without a single safety test.*

Recommendations to Governments

We urge governments *to enact a moratorium on 5G* and strongly push back against the race to build out further wireless infrastructure both on land and in space. We oppose the implementation of [disaster capitalism](#), (aka [disaster profiteering](#)) as it is now playing out with stealth and overt deployment of wireless infrastructure during this time of crisis. Governments owe it to the public to provide evidence of safety by scientists *independent of industry* before blanketing the Earth and sky with yet another layer of electromagnetic radiation. Telemedicine, online education, or other services would be far better addressed through safer, wired connections.

Based on the overwhelming body of science from international [military/government reports](#) as well as from [independent science](#) showing harm from electromagnetic radiation, we urge governments *to halt the build-out and activation of all 5G infrastructure, both on Earth and in space, and to respond to a need for more broadband access with safer, faster, more reliable and resilient wired connections.*

Recommendations Regarding Exposure to Wireless Radiation

With millions of children now home from school streaming hours of lessons daily and only able to connect with friends virtually, we recommend [reducing exposure](#) to all sources of wireless radiation as much as possible. This would include favoring hard-wired internet connections over WiFi, keeping devices on airplane mode when not in use, and using hardwired phone connections whenever possible, rather than relying solely on cell phones. For more information on how to use technology safely, please see Environmental Health Trust [10 Steps To Safer Technology At Home: How To Reduce Exposure To Wireless Radiation](#), Children's Health Defense [How to Make Remote Learning Safe for Your Children During COVID-19 Quarantine](#), and share [this flyer](#), courtesy of Americans for Responsible Technology.

Children and Screen-time

Home from school, the default mode could become screen-time only. Families and caretakers might consider taking advantage of these value-fillable days to rekindle children's ability to play, imagine, day-dream, romp in the dirt, explore nature, and above all, spend quality time with family. Likely, screen-time cravings will fall away quite naturally when children are being gifted the nurturing they truly want and need.

May this global wake-up call help move us toward a future where respect for life takes precedence over corporate self-gain, and where technology has undergone scrutiny to ensure the health and well-being of all life on the planet.

Additional References and Resources

- 1) Miller, A., Sears, M., Morgan L. Davis, D., Hardell, L. et al., August 2019. *Frontiers in Public Health*. "[Risks to Health and Well-Being From Radio-Frequency Radiation Emitted by Cell Phones and Other Wireless Devices.](#)"
- 2) Szmigielski, S. 2013. "[Reaction of the immune system to low-level RF/MW exposures,](#)" *Science of the Total Environment* 454-455:393.
- 3) Johansson, O., August 2009. *Science Direct*, "[Disturbance of the immune system by electromagnetic fields—A potentially underlying cause for cellular damage and tissue repair reduction which could lead to disease and impairment,](#)" *Pathophysiology, Volume 16, Issues 2–3*, Pages 157-177.
- 4) Grigoriev, Y., 2012. *Bioinitiative Report, 2012*, "[Evidence for Effects on the Immune System Supplement.](#)"
- 5) [Ookla 5G Map.](#)
- 6) Maps of 4G+/5G coverage around the world as of March 30, 2020, (NB: 5G varies from country to country and carrier to carrier.)
Italy: <https://www.nperf.com/en/map/ES/-/168912.Vodafone-Movil/signal/>
New York City, USA (Sprint coverage):
<https://www.nperf.com/en/map/US/5128581.New-York-City/5570.Sprint/signal/>
Wuhan, China: *Although China Telecom was in Wuhan, there is currently no data.
<https://www.nperf.com/en/map/CN/1791247.Wuhan/4747.China-Telecom/signal/>
Madrid, Spain: <https://www.nperf.com/en/map/ES/3117735.Madrid/168912.Vodafone-Movil/signal/>
Seoul, South Korea: <https://www.nperf.com/en/map/KR/1835848.Seoul/11921.U/signal/>
- 7) Kostoff, R., February 2020. "[The Largest Unethical Medical Experiment in Human History](#)", Georgia Tech Library, School of Public Policy.
- 8) Kostoff, Ron, 2019. "[Adverse Effects of Wireless Radiation](#)," School of Public Policy, Georgia Institute of Technology View/Open access paper pp.653-655 .
- 9) Russell, C.L., 2018. "[5G Wireless Telecommunications Expansion: Public Health and Environmental Implications.](#)" *Environmental Research* 165:484-495 .
- 10) [EMF Scientist Appeal](#), September 21, 2019.
- 11) Havas, M., March 22, 2020, "[Corona Virus and 5G Is there a Connection?](#)"
- 12) International Agency for Research on Cancer, IARC/WHO, [Press Release](#), May 31, 2011.
- 13) Scientific Committee on Health, Environmental and Emerging Risks (SCHEER). [SCHEER Statement on Emerging Issues \(2018\)](#), Luxembourg: European Commission; 20 December 2018, p

14) Dunckley, V., "[Reset your Child's Brain, A Four-Week Plan to End Meltdowns, Raise Grades, and Boost Social Skills by Reversing the Effects of Electronic Screen-Time.](#)" Accessed March 30, 2020