EBOOK

SAFETY

NETWORK

THE PERILOUS





The Truth About Cancer eBook

Speed Over Safety: The Perilous 5G Network By: Ty & Charlene Bollinger

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INTRODUCTION

Most Americans today are constantly connected to the world of digital information via smartphones and other mobile devices. An estimated 95% own a cell phone of some kind, while 77% own a smartphone – which currently operates on 4G technology.

According to tech experts, at least a hundred telecom operators all over the world are preparing to make the switch to 5G technology, which is expected to be fully rolled out by 2020. It will be needed to run the **28 billion** devices estimated to be online by 2021. Before we proceed, let's understand what all these "Gs" mean and what 5G is designed to do.



CHAPTER 01

WHAT IS 5G AND WHAT WILL IT DO?

The "G" in 3G, 4G, and 5G stands for "generation." The first wireless phone technology marked the appearance of the first generation. Later, 2G started when people were able to send text messages between their phones.

The advent of 3G allowed people to make calls, text, and browse the internet using their phones, while 4G provided faster wireless access and better connectivity. Long-term evolution (LTE) gave 4G even better access and faster speeds.

5G has been designed to vastly expand upon the 4G LTE technology to significantly increase storage capacity, along with boosting connection and browsing speeds.

Currently, wireless companies are mostly still in the testing and prototype stages when it comes to 5G technology. However, 5G is already being rolled out in several test cities, including Sacramento, Washington DC, Atlanta, Dallas, Miami, and New York.

According to Verizon, when it finally materializes, 5G will provide "about 50 times the throughput of current 4G LTE, latency in the single milliseconds" and will be able to "handle exponentially more Internet-connected devices" which should "accommodate the [...] explosion of the Internet of Everything".

5G technology is expected to have positive effects on customer support, worker productivity, and product quality. Gamers, who depend on the high-performance connections needed for gaming on mobile networks, are also going to love 5G.

IOT») INTERNET OF THINGS



5G is also likely to have a huge impact on the so-called "Internet of Things" – the network of physical devices, vehicles, and home appliances containing the electronics and software that will allow them to efficiently connect with each other, along with collecting and exchanging information. 5G is also likely to have a huge impact on the so-called "Internet of Things" – the network of physical devices, vehicles, and home appliances containing the electronics and software that will allow them to efficiently connect with each other, along with collecting and exchanging information.

There is no doubt that when 5G does roll out, it will lead to a dramatic surge in cell phone usage, the number of transmitters, as well as the number and variety of Internet-enabled devices.

This is very exciting from a technological standpoint, but what does 5G mean for our health and wellbeing – especially given that exposure to radiation equivalent to that of a cell phone tower **has already been shown to cause cancer** in mice in laboratory experiments?

Let's look at how 5G will be deployed to understand the effects they are likely to have on our health.

How Will 5G be Deployed?

To enable 5G deployment, wireless providers will use submillimeter and millimeter waves in frequency ranges above 6 GHz to 100 GHz and beyond, so that much more data can be transmitted in the same amount of time. However, these high-frequency waves can't carry data very far. To use them, wireless companies will have to build a massive infrastructure of literally thousands of small transmitters to increase signal range and capacity. It is estimated that a transmitter will need to be placed every two to ten homes apart.

Why should we be concerned about this?

Non-ionizing electromagnetic fields (EMFs) are generated by devices that emit radiofrequency radiation (RF), including cell phones, cordless phones and their base stations, Wi-Fi, broadcast antennas, smart meters, and even baby monitors. Electronic devices and infrastructures used to deliver electricity that generate extremely-low frequency electromagnetic fields also produce EMF.

Proximity to these devices, cell phone towers, and transmitters **increases our risk of adverse health effects** because of EMF exposure. The massive increase in transmitters required to enable 5G deployment means that it may become impossible to avoid exposure.

Despite community protests and municipal litigation, many state governments – along with the federal government – want to allow 5G transmitters to be installed in front of homes without the consent of the owners.

The prospect of so many transmitters emitting radiation has alarmed health experts who are rightly concerned about their potential adverse effects on our health, especially considering the preliminary findings from a federal government study.

5G Deployment Will Lead to Higher RF Levels than with 3G & 4G

Documents show that companies are aware that deploying 5G will lead to higher levels of harmful radiofrequency radiation in the vicinity of the 5G transmitters, relative to 3G and 4G. According to a senior expert in the field of EMF and Health at Ericsson Research, the proposed 5G network roll-out will present difficult challenges – such as more complex EMF compliance assessments and site design requirements, along with larger EMF exclusion zones. PROXIMITY TO THESE DEVICES, CELL PHONE TOWERS, AND TRANSMITTERS INCREASES OUR RISK OF ADVERSE HEALTH EFFECTS BECAUSE OF EMF EXPOSURE.



9

Countries such as China, India, Poland, Russia, Italy, and Switzerland have lower radiation limits than the U.S. So far, they have refused to allow 5G deployment, as the accompanying increase in radiation levels would exceed those limits.

According to Ericsson, if the national EMF limit for a given country is one-tenth of the international standard limit proposed in 1998 by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) the size of the exclusion zone would make the roll-out "very challenging". If the national limit was one-hundredth that of the ICNIRP limit, the size of the exclusion zone would seemingly make the 5G roll-out "a major problem or impossible".



Will 5G Affect our Health?

Before we discuss the health ramifications of 5G, consider this: published, peer-reviewed, scientific evidence indicates that even the current wireless technologies of lead to radiofrequency exposures which pose a serious health risk to humans, animals, plants, and the environment.

For instance, wireless frequencies in the millimeter and submillimeter range have been shown to interact directly with our skin, specifically sweat glands. Our skin is our largest organ. The ICNIRP, while developing recommendations for public exposure limits, appears to be planning to classify our skin as an extremity. In other words, our skin would be categorized as belonging to our limbs rather than head or torso, permitting it to be exposed to more radiation than would otherwise be allowed. In her report "A 5G Wireless Future: Will it give us a Smart Nation or Contribute to an Unhealthy One?" Dr. Cindy Russell raises further concerns about the basic safety of currently used wireless technologies. She points out that the proposed **5G frequencies have not been tested for short- or long-term safety**.

Based on a 1998 review of dozens of studies, Dr. Russell's report explains the science behind electro-sensitivity and the biological harm caused by EMFs. It further details the many adverse effects of 5G's frequencies – including arrhythmias, heart rate variability, bacterial effects, antibiotic resistance, immune system effects, chromatin effects, teratogenic effects, altered gene expression, and cataracts.

Dr. Russell warns: "The possibility of induction of adverse health effects by a local, low-intensity MMW (millimeter wave) irradiation is of potential significance for setting health and safety standards and requires special attention."

To protect public health, Dr. Russell recommends the following steps, among others:

- + Rolling out 5G technologies only after completion of studies on their health impact.
- + Creating an independent, multidisciplinary agency to develop safety regulations, premarket testing, and research needs in a transparent environment with public input.
- + Labeling EMF information on devices along with appropriate precautionary warnings.

EMFs have also been shown to trigger oxidative stress, defined as an imbalance between free radicals and reactive oxygen species and their elimination by protective mechanisms, known as antioxidants. **This imbalance is known to trigger many acute and chronic diseases**.

The World Health Organization (WHO) currently classifies EMFs associated with RF as "possibly carcinogenic to humans". However, according to a recent monograph published in the journal *Environmental Research*, mobile phone use is associated with an increased risk of brain, vestibular nerve, and salivary gland tumors, along with a possible higher risk of breast, testicular, and thyroid cancers.

Based on this evidence, the authors of the monograph recommend that IARC's current categorization of RFR as a possible human carcinogen should be upgraded to Carcinogenic to Humans.

EMFs can seriously compromise our health. Unfortunately, because this is the first generation that will be exposed from birth to such high levels of man-made radio frequencies, it will be years or even decades before the full health consequences are known.

For these reasons, many experts strongly recommend that research on the effects of 5G on human health be carried out and existing exposure limits be both re-examined and revised to ensure that both people and the environment are protected.

For instance, Dr. Russell calls the RF wavelengths to which we are currently exposed **"a toxin to biological systems"** and recommends a moratorium on 5G deployment, along with creating independent health and environmental advisory boards containing members with specific expertise in the biological effects of RF exposure.

EMFS CAN SERIOUSLY COMPROMISE OUR HEALTH. UNFORTUNATELY, **BECAUSE THIS IS THE** FIRST GENERATION THAT WILL BE **EXPOSED FROM BIRTH** TO SUCH HIGH LEVELS **OF MAN-MADE RADIO** FREQUENCIES, IT WILL BE YEARS OR EVEN DECADES BFFORF THF FULL HEALTH CONSEQUENCES ARE KNOWN.

The National Toxicology Program Studies

The FDA nominated the National Toxicology Program (NTP) to study cell phone RF exposure because, as we have already seen, most Americans use them. Further, current safety guidelines seek only to protect users from acute injury because of the heat cell phones generate, while not much is known about the potential health effects of long-term exposure to cell phone radiation. Some human studies have shown limited evidence of an increased risk of cancer from cell phone use.

For these studies, rats were exposed to 2G and 3G frequencies of 900 and 1900 megahertz – which are currently used in voice calls and texting in the U.S. – for a total of just over 9 hours a day, for 10-minute on, 10-minute off increments. Partial findings, reported in May 2016, revealed that the brains and hearts of **male rats developed low incidences of tumors. Tumors in other**



locations have been reported in both male and female rats, but these results are not yet considered conclusive.

The complete results of these studies, expected later in 2018 or early 2019, will help the federal government better understand the health risks of exposure to cell phone radiation and are likely play an important role in determining future governmental policies regarding cell phone usage safety. The FDA nominated the National Toxicology Program (NTP) to study cell phone RF exposure because, as we have already seen, most Americans use them.



Over 240 scientists from 40 nations – who are themselves actively engaged in the study of biological and health effects of non-ionizing EMF – have issued a statement to the effect that that the overall weight of evidence reported in peer-reviewed, scientific studies strongly supports greater precautionary measures be taken to reduce or eliminate exposure.

An Extraordinary Appeal

The December 2015 issue of the European Journal of Oncology contains an extraordinary document known as the "International EMF Scientist Appeal", in which over 240 scientists from 40 nations – who are themselves actively engaged in the study of biological and health effects of non-ionizing EMF – have issued a statement to the effect that that the overall weight of evidence reported in peer-reviewed, scientific studies strongly supports greater precautionary measures be taken to reduce or eliminate exposure.

This appeal has been submitted to the UN, the WHO, and the UN Environmental Program, and to all UN Member Nations.

The opening paragraph states:

Numerous recent scientific publications have shown that EMF affects living organisms at levels well below most international and national guidelines. Effects include increased cancer risk, cellular stress, increase in harmful free radicals, genetic damages, structural and functional changes of the reproductive system, learning and memory deficits, neurological disorders, and negative impacts on general well-being in humans. Damage goes well beyond the human race, as there is growing evidence of harmful effects to both plant and animal life.

According to the scientists who drafted this appeal, **the agencies responsible for setting safety standards have failed** to create and enforce proper guidelines to protect our health and wellbeing – particularly children, who are more susceptible to EMF.

For instance, in 1998 the ICNIRP published the "Guidelines for Limiting Exposure to Time-Varying Electric, Magnetic, and Electromagnetic Fields (up to 300 GHz)". These guidelines are accepted by the WHO and many countries. In fact, the WHO has called for all nations to adopt these guidelines to encourage global standardization of EMF safety standards. In 2009, the ICNIRP released a statement saying that it was reaffirming its 1998 guidelines, since apparently the scientific literature published since that time "has provided no evidence of any adverse effects below the basic restrictions and does not necessitate an immediate revision of its guidance on limiting exposure to high frequency electromagnetic fields".

Over 240 scientists who signed the appeal disagree strongly with the ICNIRP. They assert that growing scientific evidence contradicts ICNIRP's claims – in other words, that these guidelines are insufficient to protect public health.

The WHO adopted the IARC classification of extremely low frequency electromagnetic fields in 2002 and RF in 2011. According to this classification, EMF is a possible human carcinogen, as we have noted before. Despite this, the WHO maintains that there is insufficient evidence to justify lowering EMF exposure limits.

The signees of the appeal have recommended that the United Nations Environmental Programme (UNEP) fund an independent multidisciplinary committee to explore alternative options to lower human exposure to RF and extremely low frequency electromagnetic fields.

The signees further state that although it is essential that the industry be involved and cooperate in this process, they should be prevented from influencing its processes or conclusions in any way.

Finally, the signees of this document have also collectively requested that steps be taken to:

- + Protect children and pregnant women
- + Strengthen guidelines and regulatory standards
- + Encourage manufacturers to develop safer technology
- + Maintain adequate power quality and ensure proper electrical wiring in utilities responsible for the generation, transmission, distribution, and monitoring of electricity to minimize harmful ground current

The signees of the appeal have recommended that the United Nations Environmental Programme (UNEP) fund an independent multidisciplinary committee to explore alternative options to lower human exposure to RF and extremely low frequency electromagnetic fields. One of those requested steps were to include to protect children and pregnant women.



- + Fully inform the public about the potential health risks from electromagnetic energy and teach harm reduction strategies
- + Educate medical professionals about the biological effects of electromagnetic energy and train them to treat patients with electromagnetic sensitivity
- + Persuade governments to fund training and research on electromagnetic fields and health independently of industry, while mandating industry cooperation with researchers
- + Ensure that media disclose experts' financial relationships with industry when citing their opinions regarding health and safety aspects of EMF emitting technologies
- + Establish radiation-free areas, known as white zones.

What Can You Do to Reduce Your Exposure to EMFs and Dirty Electricity?

As we have seen, many experts are concerned about the health effects of the proposed massive increase in transmitters needed for 5G deployment and are working to protect us from their harmful effects. In the meantime, **we need to protect ourselves** as much as possible while we wait for existing exposure limits to be revised. Here are a few recommendations for lowering or eliminating exposure to harmful EMFs and dirty electricity:

- 1 Keep all devices in another room at night. Carry them in a bag instead of in clothing
- 2 Try to have phone conversations on a landline instead of putting your cell phone up to your head for long periods of time
- 3 Headphones and chargers can increase EMF exposure from cell phones – so don't use them while they're charging
- 4 Avoid traditional headsets. Instead, opt for air tube headsets, which deliver great sound without EMF exposure

Headphones and chargers can increase EMF exposure from cell phones.



- 5 Putting your cell phone on airplane mode stops connectivity with the towers, minimizing radiation exposure
- 6 | Get rid of electric blankets, waterbeds, and electric heating pads
- 7 Use a quality shielding phone case that is designed to block various forms of radiation.
- 8 Purchase shielded, grounded extension cords and power cords for home use
- 9 Change your bedroom circuit breaker to exclude smoke detectors, alarms, etc. and then switch off the circuit breaker at night
- 10 Use battery-powered alarm clocks
- 11 Leave at least eight inches of space between your bed and your wall. Wiring (even in walls) can emit a significant magnetic field
- 12 Position your bed so that it's as far away as possible from strong magnetic field sources, including the utility pole, refrigerator, and home entertainment center
- 13 Forget about Bluetooth headsets. Use speaker mode to keep your phone as far away from your body as possible
- 14 | If you're using a laptop at home, avoid Wi-Fi and opt for hard-wired Ethernet connections
- 15 Purchase a radio frequency meter, which will allow you to pinpoint EMF hotspots
- 16 Reduce or eliminate dimmer switches, wireless products, printers, scanners, computers, television sets, and other energy-saving devices.



Above: Use a quality shielding phone case that is designed to block various forms of radiation.

Below: If you're using a laptop at home, avoid Wi-Fi and opt for hard-wired Ethernet connections





CHAPTER 02

CITIES PUSH BACK AS FCC EXPEDITES DANGEROUS 5G NETWORKS

The reason that the City Council approved a new contract for AT&T while unanimously demanding safety studies be conducted by the FCC is a legal one. Federal laws and FCC rules prevent states, cities, and counties from regulating these technologies for health and safety reasons. The councilmembers' hands were tied. They did note that the deal they made with AT&T is significantly better than FCC guidelines.

But Portland isn't the first to raise questions about 5G networks. Finland, an international leader in cellular technology and one of the key players in the development and deployment of 5G networks, is beginning to see pushback from its citizens. The primary complaint is the **negative health impact caused by the higher-frequency waves** and the significant density of transmitters required.

Last summer, residents in San Rafael launched a campaign to block carriers from installing 5G transmitters in Marin County, citing health risks associated with EMFs. Later that year, the city of Mill Valley, CA voted unanimously to block the installation of 5G equipment in an urgency ordinance. The move was made after the city received hundreds of calls, letters, and emails from residents voicing concern over the health risks of the new technology. Although there have been no studies on 5G conducted in the U.S., research compiled by the European Union has found health risks, including cancer. But health concerns aren't the only reason towns are stepping up to block the new infrastructure.

The FCC-Telecom Affair

According to the Washington Post, more than a dozen cities are challenging federal regulators in court over new FCC policies which offer telecom companies millions of dollars in incentives, restrict the ability of municipalities to charge for access to utility poles, and require expedited review of new permit requests by city officials.

The new FCC mandate is based on fast-tracking the construction of 5G networks, and **strips local governments of their ability to ensure public health and safety standards** and negotiate construction agreements with telecom carriers. And if you're wondering why the FCC would show such an aggressive and proactive interest in 5G, I have an answer: money.

According to CNN, Verizon will be launching its 5G service in Chicago and Minneapolis on April 11th, making them the first U.S. carrier to offer true 5G service to its customers. The service will be free for the first 3 months and then will cost consumers an extra \$10 each month.

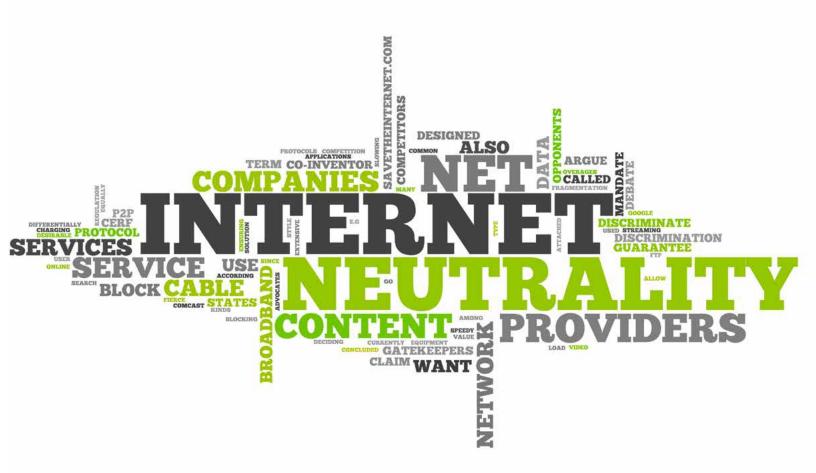
Telecom companies have been clamoring to build their networks faster and better than the competition. Being first to market will undoubtedly bring in new customers who want to have the latest technology and creating the largest network can attract exclusive contracts with device manufacturers who have yet to release a true 5G phone (Verizon's network will only work on the Moto Z3 and requires a \$350 attachment for 5G compatibility.)

But why would the FCC be concerned about profits for major carriers?

Let us introduce you to Ajit Pai, the Chairman of the FCC. Designated by president Trump in 2017, Pai made waves almost immediately by attempting to overturn net neutrality rules established by the

Ajit Pai, the Chairman of the FCC. Designated by president Trump in 2017.





previous administration. Net neutrality is essentially the idea that internet service providers (ISPs) can't charge companies for premium speeds, which would **restrict many smaller companies and sites** and take away a certain level of choice for consumers.

In 2010, the FCC established net neutrality rules under Title I of the Communications Act of 1934. Verizon successfully sued the FCC saying that they did not have the authority to enforce that level of oversight. The FCC then reclassified ISPs under Title II, allowing for more regulatory authority. Why does this matter?

Because before becoming FCC Chairman, Ajit Pai worked as Associate General Counsel for Verizon. And Verizon badly wanted to repeal net neutrality. At one point, Verizon blocked Google Wallet on their phones because it competed with their own digital payment app, something not permitted under net neutrality rules.

When it comes to 5G, it seems that Pai is again proving to be a friend to Verizon and the telecommunications sector. The mandate rushes the construction of these networks **without any** Net neutrality is essentially the idea that internet service providers (ISPs) can't charge companies for premium speeds, which would restrict many smaller companies and sites and take away a certain level of choice for consumers.



safety research and undercuts the authority of cities and states to protect their residents or even negotiate a fair price for use of their utilities.

Pai is not the first FCC commissioner with ties to the telecommunications industry. Tom Wheeler, confirmed in 2013, was so involved in lobbying for the industry that he is the only person to be inducted into both the Wireless Hall of Fame and the Cable Television Hall of Fame. Julius Genachowski, who became FCC chairman in 2009, went on to work for The Carlyle Group, an asset management company that works with telecommunications and media clients.

The revolving door between the private sector and government agencies is constantly in motion. Just look at the FDA and the pharmaceutical industry. Telecommunications companies and tech manufacturers have a chance to make tons of money with 5G networks and devices, and you can bet that they won't let something a small as cancer stop them.

And as long as they have friends in government, they'll keep literally getting away with murder. But we can stop them. Just like we saw in Mill Valley and Portland, when enough of us stand together, our voices WILL be heard. You can make your voice louder by writing your representatives, signing petitions, and refusing to support any person or entity involved in cronyism.



YOU CAN MAKE YOUR VOICE LOUDER BY WRITING YOUR REPRESENTATIVES, SIGNING PETITIONS, AND REFUSING TO SUPPORT ANY PERSON OR ENTITY INVOLVED IN CRONYISM.



CHAPTER 03

THE CELL PHONE RADIATION SCANDAL: TOP BRANDS ARE LYING ABOUT SAFETY

As the controversy over 5G networks and cell phone radiation continues, it turns out that manufacturers aren't playing fair. In a groundbreaking expose by the *Chicago Tribune*, popular phones by Apple, Samsung, and Motorola were found to produce radiation that exceeds federal limits. The new data has forced the FCC to investigate – and could be a major blow to the industry.

The question has been asked about as long as mobile phones have existed: **"Are they safe?"**

Manufacturers and service providers have assured us time and time again that radiofrequency radiation is nothing to worry about, but the Federal Communications Commission (FCC) did eventually set limits.

For a cell phone to be approved for sale, it must undergo FCCapproved testing to determine the amount of radiofrequency radiation that will be absorbed by organic matter. This gives us an idea of just how much radiation users will experience, day in and day out. The current limit for cell phone radiation is 1.6 watts per kilogram.

1.6 W/kg. Keep that number in mind as we continue...

FOR A CELL PHONE TO BE APPROVED FOR SALE, IT MUST UNDERGO FCC-APPROVED TESTING TO DETERMINE THE AMOUNT OF RADIOFREQUENCY RADIATION THAT WILL BE ABSORBED BY ORGANIC MATTER. Journalists at the *Tribune* wanted to know if this threshold was truly being observed by manufacturers, so they funded their own testing to find out. They began with Apple's iPhone 7. The test was conducted at a lab accredited by the FCC to perform the tests according to federal guidelines.

To conduct the tests, phones were placed under a tub containing liquid that simulates human tissue. The phone was then powered on and a call was placed so that it was operating at full power. For the next 18 minutes, a robotic sensor took over 275 measurements.

The phone was tested twice, once at 5 millimeters away from the liquid and once at 2mm away. **The second test, they explained, was to simulate a phone being stored in clothing, like pockets.** They measured this by cutting out pieces of dress shirts, T-shirts, jeans, track pants, and undergarments and using them to find the appropriate distance.

The iPhone 7 was tested in August of 2018, followed by 11 more phones in October: 2 more iPhone 7s, an iPhone 8, an iPhone X, an iPhone 8 Plus, a Galaxy S9, a Galaxy S8, a Galaxy J3, a Moto e5 Play, a Moto g6 Play and a Vivo 5 Mini.

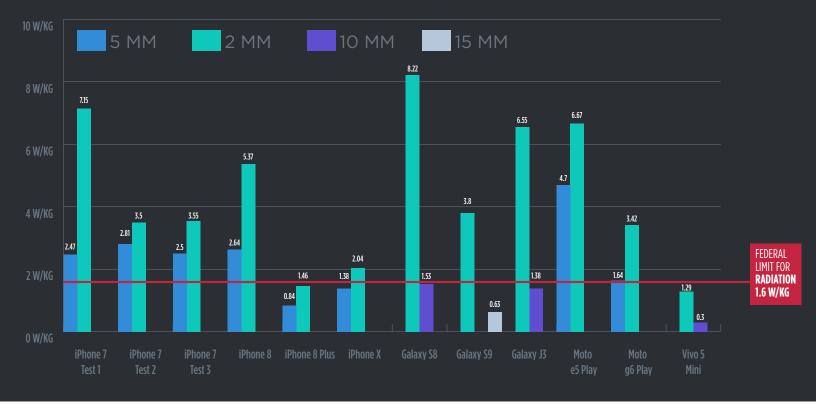
The *Tribune* reports that the **results of the first iPhone 7 test were so high** that they wanted to test two more to be sure.

The results were staggering.

With a federal limit of 1.6 W/kg, nearly half of the phones failed the test at 5mm. At 2mm, representing a phone kept in your clothing, all but one failed. If the tests are accurate, this would be a catastrophic failure of FCC oversight, and severe ineptitude or diabolical deceit by the manufacturers (except Vivo, who was well within guidelines).

Apple, understandably, was not happy with the results. After receiving the report, they complained that the results were invalid because they were not performed properly. They failed to specify the problem, but the Tribune decided to repeat tests on the iPhones, this time activating sensors meant to reduce power during use. They added a 4th iPhone 7 so there could be no mistake.

STANDARD TESTFOR RADIATION



Still, the results were disturbing.

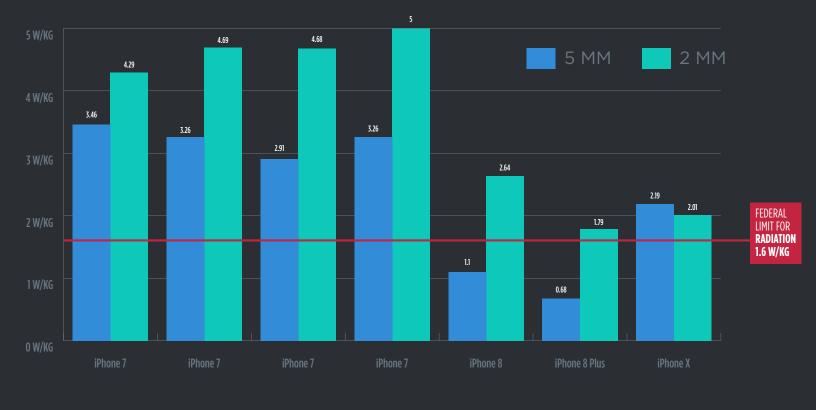
While the scores generally dropped, 6 of the 7 Apple phones failed to meet radiation standards at 5mm. **At 2mm, every single phone manufactured by Apple produced radiation above the legal limit**.

The FCC has approved all of these phones and claims that they will "never exceed" radiofrequency radiation of 1.6 W/kg. Clearly **something is wrong**. To avoid any kind of scrutiny, the *Chicago Tribune* used RF Exposure Lab, located in San Marcos, California. The lab is accredited by the FCC to conduct these tests and has been conducting radiation tests for FCC approval for nearly 15 years.

Owner and former engineering director for Qualcomm Jay Moulton conducted the tests personally, ensuring that they met all FCC standards.

But when it comes time for companies to prove that their products are safe, **the system is deeply flawed**. Manufacturers get to choose their own labs for testing, which leaves room for at least the appearance of impropriety. Additionally, manufacturers are allowed to test the phone as far away as 25mm, or about an inch. With a federal limit of 1.6 W/ kg, nearly half of the phones failed the test at 5mm. At 2mm, representing a phone kept in your clothing, all but one failed.

MODIFIED TESTFOR RADIATION



Apple, understandably, was not happy with the results. After receiving the report, they complained that the results were invalid because they were not performed properly. They failed to specify the problem, but the Tribune decided to repeat tests on the iPhones, this time activating sensors meant to reduce power during use. They added a 4th iPhone 7 so there could be no mistake. Tribune author Sam Roe speculates that this is due to timing.

The testing standards were adopted in the 1990s, when people frequently carried cellphones on belt clips, he wrote.

For the tests conducted by the *Tribune*, phones were tested at the same distances reported by the manufacturers. Apple claims that their tests are conducted at 5mm. Samsung phones are tested at 10mm or 15mm, depending on the model. And while the 2mm distance was closer than the FCC requires, it may be the distance most accurate when it comes to the way people store cell phones.

7 years ago, the Government Accountability Office recommended that the FCC revisit the testing requirements and exposure limits. They specifically mentioned that, because phones are *most often held against the body*, it was impossible for the current testing to demonstrate that cell phone radiation levels were within the federal limit.

Earlier this month, **the FCC announced that the standards were sufficient and did not need to be changed**. But these guidelines were established back in 1996.



This was just after we were married and before losing Ty's dad to dangerous cancer treatments. Few people had cell phones back then. The phones that were around were bulky and had poor battery life. No one texted, and the idea of children owning or using cell phones was absurd.

To put things in perspective, the Nokia 3310 (the phone you played "snake" on) was first launched on September 1st, 2000. **The way people used cell phones in 1996 is absolutely nothing like the way we use them now**. Even the current testing methods exclude eyes and ears, which may be most vulnerable to the effects of radiation. Still, the FCC has done nothing.

But the new data discovered by the *Tribune* cannot be ignored. After receiving a copy of the report, **the FCC agreed to conduct their own testing** to determine if the phones are not in compliance. "We take seriously any claims on non-compliance with the RF (radiofrequency) exposure standards and will be obtaining and testing the subject phones for compliance with FCC rules," FCC spokesman Neil Grace said.

Of course, the FCC has a long and cozy history with the communications industry. The top lobbying groups for the wireless industry have been led by former FCC chairmen and commissioners. Tom Wheeler, the last FCC commissioner, was the president of two different trade groups representing the wireless industry before joining the FCC. The way people used cell phones in 1996 is absolutely nothing like the way we use them now. Even the current testing methods exclude eyes and ears, which may be most vulnerable to the effects of radiation. Still, the FCC has done nothing.



Antiquated guidelines established at the dawn of the cellular age are still in place. Regulators, in bed with the industry, are making concessions designed to help the wireless industry. And now it seems that cell phone manufacturers themselves have been scamming us. Wheeler's predecessor, Julius Genachowski, took a lucrative job with The Carlyle Group (an asset management company working with telecom and media companies) after leaving the FCC. **And the current commissioner, Ajit Pai, is no better**. A former Associate General Counselor for Verizon, Pai immediately tried to overturn net neutrality rules – a top priority for his former employer.

Pai's FCC has helped to establish laws and rules that prevent states, cities, and counties from regulating technology companies for health and safety reasons. This is likely to help fast track the new 5G networks that have already been deployed in select cities.

Although no safety studies have been conducted on 5G radiation in the U.S., research compiled by the European Union has found health risks, including cancer. Dozens of cities, towns, and even nations have seen major pushback from their citizens, citing the health risks.



When it comes to the technology we already have, it seems the game is rigged. Antiquated guidelines established at the dawn of the cellular age are still in place. Regulators, in bed with the industry, are making concessions designed to help the wireless industry. And now it seems that **cell phone manufacturers themselves have been scamming us**.

Sure, it's possible that these results are an anomaly, and that the phones in question are within the FCC radiation limits. But it's unlikely. Nearly all of the Apple phones failed – even with the newer test. Samsung's Galaxy S8, which sold over 5 million units in its first month, **had radiation levels more than 5 times the legal limit**.

Our system is broken, and it seems that regulators need to have the evidence spoon-fed to them in order to even look into it (just look at the new evidence regarding fluoridated water). ALTHOUGH NO SAFETY STUDIES HAVE BEEN CONDUCTED ON 5G RADIATION IN THE U.S., RESEARCH COMPILED BY THE EUROPEAN UNION HAS FOUND HEALTH RISKS, INCLUDING CANCER.



CHAPTER 04

5G FACES GLOBAL OPPOSITION AS HEALTH CONCERNS MOUNT

In April 2019, Brussels, the capital city of Belgium, put an abrupt stop to the deployment of 5G networks. In the summer of 2018, lawmakers and telecom companies agreed to relax the city's stringent radiation standards. Now, government officials say that it is impossible to know how much radiation the new network will introduce, or the effects of that radiation on humans and other organisms.

Environment minister Céline Fremault stated her position in no uncertain terms:

I cannot welcome such technology if the radiation standards, which must protect the citizen, are not respected, 5G or not. The people of Brussels are not guinea pigs whose health I can sell at a profit. We cannot leave anything to doubt.

This is what leadership and public service should look like. While there are some studies into the effects of 5G radiation, there is still much that is left unknown. It could be decades before the impact of 5G on our health is truly known. Brussels is the first major city to put a stop to the construction of 5G networks, and the decision could have substantial impact in Europe. Although the European Union does not have an official capital, its most important institutions and governing bodies are found in Brussels.

Even introductory 5G pilot programs are not permitted under Brussels' radiation standards and Fremault has said she does not plan to make an exception. Hopefully, the leadership we're seeing in Belgium will spread throughout Europe and to the rest of the world. And the people seem to stand behind them.

Festival Attendees Wary of Glastonbury 5G Trial

European telecom company EE announced just days ago that it would be testing their new 5G network at Glastonbury, one of the world's largest music and arts festivals. EE's marketing and communications director Pete Jeavons couldn't be more excited:

> Smartphones have become a festival must-have as we've seen each year with more and more data being consumed at Glastonbury Festival. As the long-standing technology partner to this iconic event, we are committed to building a network powerful enough to cope with this huge demand. With the introduction of 5G this year, we are able to trial this new technology at Worthy Farm and make history as the UK's first 5G-connected festival.

And while the company is excited to be a pioneer of the new tech, attendees are more skeptical. In fact, some are rethinking their decision to even attend in the wake of the news. They've been vocal on social media about the risks of 5G and, more importantly, the serious lack of sufficient studies. Festival goers do not want to become guinea pigs for the telecom industry.

In an interview with The Daily Mail, Dr. Joel Moskowitz, a public health professor at the University of California, Berkeley said the following: The deployment of 5G, or fifth generation cellular technology, constitutes a massive experiment on the health of all species.

And while telecom operators continue to repeat their mantra that "5G is safe," some independent studies show otherwise. And that's why some nations are beginning to treat 5G like the experiment that it is.

Switzerland to Monitor 5G Health Effects

Following major vocalization from her citizens, Switzerland announced last week that they will introduce a federal monitoring system to evaluate radiation levels and the effects of the network on public health. According to Reuters, more than half of Swiss citizens believe that radiation from cell towers may be dangerous, and that part of the problem is that network radiation is not measured regularly.

Major telecoms operator Swisscom has already begun to roll out the new 5G network in over 100 locations throughout the country. CEO Urs Schaeppi has said that Swisscom plans to cover 90% of the country with 5G by the end of the year.

But some areas are fighting back, as 4 districts – or cantons – including Geneva, Neuchâtel, Vaud, and Jura, have suspended authorizations for the installation of 5G transmitters. There is currently a study underway that will be presented to the Swiss government this summer, which the 4 cantons will use to inform ongoing decisions about the network.

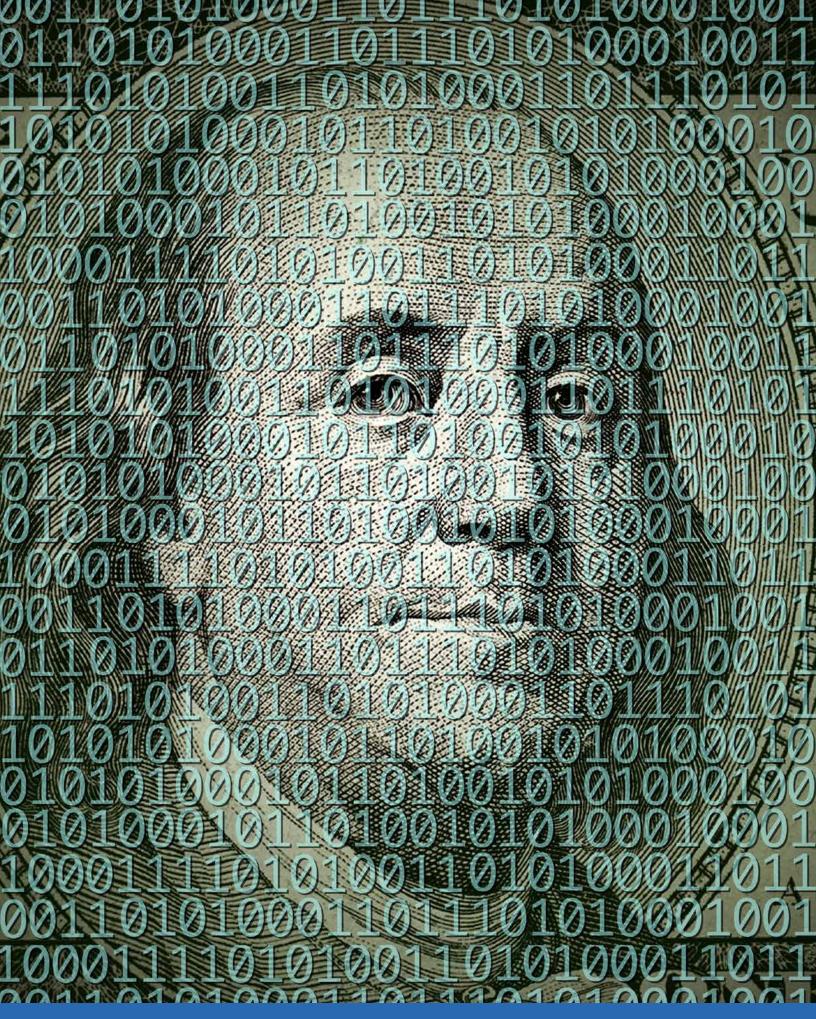
As we begin to see major cities taking action abroad, it's important to look at what's happening in the U.S.

Telecommunications and the FCC

5G networks in the U.S. have been supported by the Federal Communications Commission (FCC), whose policies offer telecom companies millions of dollars in incentives, restrict the ability of



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municipalities to charge for access to utility poles, and require expedited review of new permit requests by city officials. The FCC is corrupt, and its leader is heavily invested in the telecommunications industry.

Even the president has helped to expedite the new network, working with the FCC to auction off massive chunks of spectrum for the new networks. During the announcement, the President made clear his intentions, saying: "The race to 5G is on and America must win."

And while the increased technological ability would undoubtedly lead to a new era of innovation, the health risks may outweigh the benefits. But just like the pharmaceutical and agricultural industries, **human safety is often put aside for new financial opportunities**. The telecommunications industry stands to make billions with the new technology, and they've made sure to purchase friends in Washington who will help pave the way.

But as we've seen in small towns like Portland and Brussels, they can be stopped. When enough of us stand together, our voices WILL be heard. You can make your voice louder by writing your representatives, signing petitions, and refusing to support any person or entity involved in cronyism.

WHEN ENOUGH OF US Stand Together, Our voices will Be heard.



TY & CHARLENE BOLLINGER

ABOUT THE AUTHORS

Ty & Charlene Bollinger are devoted Christians, health freedom advocates, health researchers, documentary film producers, and best-selling authors.

After losing several family members to conventional cancer treatments, they set out to learn the truth about cancer and the cancer industry, working together tirelessly to help others to learn the truth that sets them free to live healthy, happy lives.

Ty & Charlene's heartbreak and grief coupled with their firm belief that chemotherapy, radiation, and surgery were NOT the most effective treatments available for cancer patients, led them on a path of discovery.

On their journey, they interviewed cutting-edge scientists, leading alternative doctors, and groundbreaking researchers to learn about hidden alternative cancer treatments. What they uncovered helped to create The Truth About Cancer and its four awe-inspiring documentaries: The Quest for The Cures, The Quest For The Cures Continues, The Truth About Cancer: A Global Quest, and Eastern Medicine: Journey Through ASIA.

Ty and Charlene speak frequently at seminars, expos, conferences, and churches. Together, they host a biweekly internet news program: TTAC Global Health News.

Their message is clear: **CANCER IS NOT A DEATH SENTENCE. THERE IS ALWAYS HOPE.**

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