



Environmental Health Trust
P.O. Box 58, Teton Village WY 83025
ehtrust.org

February 15, 2021

Mike Sievert
President and CEO,
T-Mobile 3625 132nd Ave SE
Bellevue, WA 98006

Dear Mr. Sievert:

We are writing with a request that you urgently take down the Super Bowl commercial featuring Dolly Parton pulling a cell phone out of her bra. The new advertising campaign for 5G phones that features Dolly Parton telling Miley Cyrus to use her voice to “help 5G phones’ dreams come true” sends a misleading message to women. It creates the illusion that a cell phone in the bra is safe.

Consumers have a right to know that when they carry a cell phone in their bra, the cell phone radiation emissions could violate the U.S. FCC safety limits for human exposure because the transmitting antenna is too close to breast tissue.

Our requests to T- Mobile

1. Take down the Dolly Parton, Miley Cyrus Ad *Cell Phone In the Bra* Campaign.
2. Inform consumers that cell phones should not be carried in the bra.
3. Halt 5G deployment until safety is assured.

We base our request on the following facts:

1. Cell phones have hidden instructions to keep away from your body.

As I’m sure you know, all cell phones have fine print instructions hidden deep in user manuals or legal disclaimers that instruct cell phone users against placing a transmitting cell phone in direct contact with the body. These instructions apply to breast tissue.

These instructions exist because cell phones emit radiofrequency (RF) radiation. Manufacturers premarket test phones in positions with a separation distance between the body and phone to ensure the phone's RF radiation emissions are compliant with U.S. limits for human exposure. If the phone is used at a closer distance, the body can absorb more RF radiation than US regulations allow.

For example, the Google Pixel 5a (5G) safety information [states](#), “Keep the phone away from your body to meet the distance requirement.” EHT has a webpage with numerous examples of the [Fine Print Warnings](#) including:

- Apple iPhone 13- 5mm distance
- Google Pixel 5a (5G) - 1 cm distance
- Samsung Galaxy Z 5G - 1.5 cm distance

2. A cell phone in the bra can violate cell phone radiation safety limits.

A cell phone is emitting pulsed RF non stop, even when you are not talking on the cell phone. This RF radiation is absorbed into your body tissues. [Studies](#) show that cell phones could violate U.S. government safety limits for human exposure to RF radiation up to 11 times when phones are pressed up against the body.

We have [this data](#) because the French government French National Frequencies Agency (ANFR) has tested hundreds of cell phones for radiation levels since 2012. However, unlike regulatory compliance tests, the ANFR tests were performed with the phone in several positions, including at body contact. The results were not publicly known until 2016 after pressure from legal actions of French physician Dr. Marc Arazi and the [Phonagate Alert Association](#). These tests revealed that the majority of cell phones tested exceeded regulatory limits when tested at body contact. The French government cell phone radiation data can be found [here](#).

A 2019 French government Order of the Minister for Solidarity and Health and the Minister for the Economy and Finance, stated consumers should be informed that they should use speakerphone to keep the phone away from their head, limit frequency and duration of cell phone calls for children and phones have instructions that state “keep away from the belly of pregnant women, Keep away from the lower abdomen of adolescents” ([Order of 15 November 2019 Relating to the Display of the Specific Absorption Rate of Radio Equipment and to Consumer Information, 2019](#)). Several other countries have laws and orders in place to inform consumers about the RFR from the device and educate the public to reduce exposure.

3. Cell phone radiation can cause cancer.

Scientific reviews conclude that cell phone RF radiation can cause cancer. Senior advisors to the World Health Organization have concluded that if cell phone radiation were evaluated at this time, it would be considered a probable, if not fully confirmed human carcinogen ([Carlberg and Hardell, 2017](#); [Directorate-General for Parliamentary Research Services \(European Parliament\) & Belpoggi, 2021](#); [Miller et al., 2018](#); [Melnick, 2019](#); [Portier, 2021](#)).

4. Women who carry phones in their bra are developing breast cancer

Published [case reports](#) document young women developing unusual breast cancers located directly underneath the skin -where they placed their cell phones in their bra. A [2020 case control study](#) found cell

phone use linked to increased breast cancer risk, particularly in women who used phones close to their breast.

Cell phones transmit radiofrequency radiation all the time, even when you are not talking on the phone. A systematic review and meta-analysis of case-control studies found evidence that linked cellular phone use to increased tumor risk ([Choi et al., 2020](#)).

5. Doctors warn that cell phones should not be carried in the bra.

Numerous doctors recommend that people keep the phone away from the brain and body, especially the breast.

- In 2013, breast surgeon Dr. Lisa Bailey, former president of the American Cancer Society of California gave [a lecture](#) at the San Francisco Commonwealth club recommending women keep cell phones out of the bra.
- The Massachusetts Breast Cancer Coalition created an educational curriculum for classrooms to prevent breast cancer. Go to “[Let’s Talk Prevention Classroom Module 3 Cell Phone and Wireless](#) to download the curriculum.
- In 2017 the California Department of Health released an advisory on how to reduce cell phone radiation [stating](#), “Carry your cell phone in a backpack, briefcase, or purse; NOT in a pocket, bra or belt holster.”
- [The American Academy of Pediatrics](#) and the [North Carolina Public Health Department’s Department](#) both state “Avoid carrying your phone against the body like in a pocket, sock, or bra. Cell phone manufacturers cannot guarantee that the amount of radiation you are absorbing will be at a safe level.”
- EHT has strategies on [how to reduce cell phone radiation here](#) and [factsheets/posters here](#).

6. Research Indicates that 5G Phones and 5G Networks Pose Health Risks

Here are some examples of research on radio frequency- including frequencies emitted from low/mid band 5G networks, small cells, cell towers, cell phones and wireless electronics.

- European Parliament requested a research report “[Health Impact of 5G](#)” released in July 2021 concluding that commonly used RFR frequencies (450 to 6000 MHz) are probably carcinogenic for humans *and* clearly affect male fertility with possible adverse effects on the development of embryos, fetuses and newborns.
- A review on real world exposure to 5G published in *Toxicology Letters* found that 5 G will have systemic effects as well as adverse effects to the skin and eyes ([Kostoff et al., 2020](#)).
- A landmark three part **2021 research review** on effects of non ionizing radiation to wildlife published in *Reviews on Environmental Health* by U.S experts, including former U.S. Fish and Wildlife senior biologist Albert Manville, states current science should trigger urgent regulatory action citing more than 1,200 scientific references which found adverse biological effects to wildlife from even very low intensities of non ionizing radiation with findings of impacts to orientation and migration, reproduction, mating, nest, den building and survivorship ([Levitt et al., 2021a](#), [Levitt et al., 2021b](#), [Levitt et al., 2021c](#)).
- 2021 systematic reviews that find RFR can harm sperm ([Kim et al., 2021](#), [Sungjoon et al., 2021](#), [Yu et al., 2021](#)).

- A 2021 systematic review on the effects of RFR to male reproductive hormones found that wireless can decrease testosterone ([Maluin et al, 2021](#)).
- A review on the genetic effects of non-ionizing electromagnetic fields found DNA strand breaks, micronucleus formation, and chromosomal structural changes ([Lai 2021](#)).
- A systematic review published in the Annals of the New York Academy of Sciences found that neuronal ion channels are particularly affected ([Bertagna et al 2021](#)).
- A review in the International Journal of Oncology describes how EMFs lead to dysfunction of ion channels which lead to reactive oxygen species/free radical overproduction providing “ a complete picture” of how exposure may indeed lead to DNA damage and related pathologies, including cancer,” ([Panagopoulos et al. 2021](#)).
- The Switzerland Institute of the Environment expert published review found increased oxidative stress in the majority of animal studies and cell studies with exposures within regulatory limits ([Schuermann et al., 2021](#)) corroborating an earlier review ([Yakymenko et al 2016](#)) on oxidative stress that concluded 93 of 100 studies found oxidative effects.

T-Mobile must warn consumers of the risk, not just their shareholders.

- T- Mobile already states to shareholders in its [2021 10-K](#) that, “We, along with equipment manufacturers and other carriers, are subject to current and potential future lawsuits alleging adverse health effects arising from the use of wireless handsets or from wireless transmission equipment such as cell towers. In addition, the FCC has from time to time gathered data regarding wireless device emissions, and its assessment of the risks associated with using wireless devices may evolve based on its findings. Any of these allegations or changes in risk assessments could result in customers purchasing fewer devices and wireless services, could result in significant legal and regulatory liability, and could have a material adverse effect on our business, reputation, financial condition, cash flows and operating results.”

Sincerely,

Devra Davis, PhD, MPH
President and Founder [Environmental Health Trust](#)

EDUCATIONAL RESOURCES

The Massachusetts Breast Cancer Coalition “[Let’s Talk Prevention Classroom Module 3 Cell Phone and Wireless](#)

[Green Gazette:HEALTH ISSUES | Save the Girls. Make the Bra a No-Phone Zone](#)

[CBS News Story: Doctors: Women who store phone in bras at risk for breast cancer](#)

[California Department of Public Health Cell Phone Radiation Advisory, 2017](#)

VIDEO RESOURCES

[2013 Lecture by Dr. Lisa Bailey, former president of the American Cancer Society of California at the San Francisco Commonwealth Club](#)

CBC Investigative Reports: [The Secret Inside Your Cellphone](#)

REFERENCES

Breast Cancer

West JG, Kapoor NS, Liao SY, Chen JW, Bailey L, Nagourney RA. [Multifocal Breast Cancer in Young Women with Prolonged Contact between Their Breasts and Their Cellular Phones](#). *Case Rep Med*. 2013;2013:354682. doi: 10.1155/2013/354682. Epub 2013 Sep 18. PMID: 24151509; PMCID: [PMC3789302](#).

Shih YW, Hung CS, Huang CC, Chou KR, Niu SF, Chan S, Tsai HT. [The Association Between Smartphone Use and Breast Cancer Risk Among Taiwanese Women: A Case-Control Study](#). *Cancer Manag Res*. 2020 Oct 29;12:10799-10807. doi: 10.2147/CMAR.S267415. PMID: 33149685; PMCID: PMC7605549. [PDF](#)

RF Radiation and Cancer

Belpomme, D., Hardell, L., Belyaev, I., Burgio, E., & Carpenter, D. O. (2018). Thermal and non-thermal health effects of low intensity non-ionizing radiation: An international perspective. *Environmental Pollution*, 242, 643–658. <https://doi.org/10.1016/j.envpol.2018.07.019>

Carlberg, M., & Hardell, L. (2017). Evaluation of Mobile Phone and Cordless Phone Use and Glioma Risk Using the Bradford Hill Viewpoints from 1965 on Association or Causation. *BioMed Research International*, 2017, e9218486. <https://doi.org/10.1155/2017/9218486>

Choi, Y.-J., Moskowitz, J. M., Myung, S.-K., Lee, Y.-R., & Hong, Y.-C. (2020). Cellular Phone Use and Risk of Tumors: Systematic Review and Meta-Analysis. *International Journal of Environmental Research and Public Health*, 17(21), 8079. <https://doi.org/10.3390/ijerph17218079>

Miller, A. B., Morgan, L. L., Udasin, I., & Davis, D. L. (2018). Cancer epidemiology update, following the 2011 IARC evaluation of radiofrequency electromagnetic fields (Monograph 102). *Environmental Research*, 167, 673–683. <https://doi.org/10.1016/j.envres.2018.06.043>

Miller, A. B., Sears, M. E., Morgan, L. L., Davis, D. L., Hardell, L., Oremus, M., & Soskolne, C. L. (2019). Risks to Health and Well-Being From Radio-Frequency Radiation Emitted by Cell Phones and Other Wireless Devices. *Frontiers in Public Health*, 7. <https://www.frontiersin.org/article/10.3389/fpubh.2019.00223>

T MOBILE

[T-MOBILE Campaign “Do It For the Phones”](#)

[“Dolly Parton and Miley Cyrus Help 5G Phones Come True”](#)

[“Miley Cyrus Sings a Song for 5G Phones”](#)

[“Miley Cyrus - Do it for the Phones \(Official Video\)”](#)