



Cell Phone Right to Know Ordinance



Table of Contents

World Health Organization Declares Emissions from Cell Phones a Possible Carcinogen	3
U.S. Government Accountability Office (GAO) Report Stating that a User’s Exposure May Exceed the Federal Safety Limit if Used Against the Body	4
Consumer Safety Warnings About Maintaining a Separation Distance From a Cell Phone Are “Hidden” in the Fine Print of User Guides	5
Why Are “Fine Print” Separation Distance Warnings Located in Phones and User Guides?	6
Survey of Berkeley Residents Affirms Need for City to Adopt Cell Phone “Right to Know” Ordinance	8
Berkeley’s Cell Phone “Right to Know” Ordinance	10
How is this Proposed Legislation Different From What San Francisco Adopted in 2011?	13
Harvard Constitutional Law Scholar Lawrence Lessig on the Legal Merits of the Cell Phone Right to Know Ordinance	14
Two Relevant News Articles	14
Breast Cancer in Young Women From Carrying and Using Phone in Bra	15
Sperm Damage from Carrying Phone in Pants Pocket	16
Yale Study: Damage to Fetuses From Cell Phone Use	18
Over 200 Scientists Appeal to UN to Adopt More Protective Exposure Guidelines in the Face of Increasing Evidence of Risk	20
“Captured Agency: How the Federal Communications Commission is Dominated by the Industries It Presumably Regulates”	21
The Cell Phone Industry Responds	22



IARC CLASSIFIES RADIOFREQUENCY ELECTROMAGNETIC FIELDS AS POSSIBLY CARCINOGENIC TO HUMANS

*Lyon, France, May 31, 2011 -- The World Health Organization/ International Agency for Research on Cancer (IARC) has classified radiofrequency electromagnetic fields as **possibly carcinogenic to humans (Group 2B)**, based on an increased risk for **glioma**, a malignant type of brain cancer, associated with wireless phone use.*

The IARC Monograph Working Group, consisting of 31 scientists from 14 countries, was convened to assess the potential carcinogenic hazards from exposure to radiofrequency electromagnetic fields. They discussed the possibility that these exposures might induce long--term health effects, in particular an increased risk for cancer.

...This has relevance for public health, particularly for users of mobile phones, as the number of users is large and growing, particularly among young adults and children.

International experts shared the complex task of tackling the exposure data, the studies of cancer in humans, the studies of cancer in experimental animals, and the mechanistic and other relevant data.

The data showed a 40% increased risk for gliomas in the highest category of heavy users (reported average: 30 minutes per day over a 10--year period).



**The US Government Accountability Office Reports that
Using a Cell Phone Against the Body
Exposes the User to Microwave Radiation that
May Exceed the Federal Safety Limit**

The July 2012 U.S. Government Accountability Office (GAO) report, "*Telecommunications: Exposure and Testing Requirements for Mobile Phones Should Be Reassessed*" found that:

"By not formally reassessing its current limit, FCC cannot ensure it is using a limit that reflects the latest research on RF energy exposure. FCC has also not reassessed its testing requirements to ensure that they identify the maximum RF energy exposure a user could experience. Some consumers may use mobile phones against the body, which FCC does not currently test, and could result in RF energy exposure higher than the FCC limit."

Examples of “fine print” separation distance advisories for popular cell phones:

Apple iPhone 5 – Found on the Apple website at:
<https://www.apple.com/legal/rfexposure/iphone5,1/en/>

And, can be found on the iPhone navigating through the following screens:
Settings>General>About>Legal>RF Exposure

“To reduce exposure to RF energy, use a hands-free option, such as the built-in speakerphone, the supplied headphones or other similar accessories. Carry iPhone at least 10mm away from your body to ensure exposure levels remain at or below the as-tested levels.”

Samsung Galaxy S5 – Refer to “Health & Safety & Warranty Guide” (pg 3)-

Also found on the phone navigating through the following screens: Settings>About Device>Legal Information>Samsung Legal>Health & Safety

“For body-worn operation, this phone has been tested and meets FCC RF exposure guidelines when used with an accessory that contains no metal and that positions the mobile device a minimum of 1.0 cm from the body.”

BlackBerry Bold – Found in user guide “Safety and Product Information” –

“Use hands-free operation if it is available and keep the BlackBerry device at least 0.59 in (15mm) from your body (including the abdomen of pregnant women and the lower abdomen of teenagers) when the BlackBerry device is turned on and connected to a wireless network.”

Why are the “fine print” separation distance advisories located within phones and user manuals?

FCC rules state that cell phones must be tested for compliance with exposure guidelines – but, they allow the phones to be tested held a small “separation distance” away from the torso simulating being carried or used in a belt clip or holster.

The testing protocol for “body-worn” use was established prior to 1996 when phones were assumed to be carried on the body in a holster or belt clip and when they were not designed to be worn and/or used in pockets or tucked into bras, typical ways that phones are used today.

Because the 19 year old federal guidelines have not been updated since they were originally established in 1996, the FCC still assumes that all cell phones are only carried or used on the body in a holster or belt clip. Manufacturers (wrongfully) assert that all their customers always use a holster or belt clip to maintain the required separation distance when carried or used on the body.

The FCC does not test cell phones the way they are typically used in a pocket directly against the body.

Therefore, if a cell phone is used in a pocket or tucked into a bra or waistband, the consumer may be exposed to RF radiation levels that exceed the federal exposure guideline.

In July, 2012, the Government Accountability Office (GAO) issued a report called Exposure and Testing Requirements for Mobile Phones Should Be Reassessed in which the following statements appear:

“FCC has also not reassessed its testing requirements to ensure that they identify the maximum RF energy exposure a user could experience. Some consumers may use mobile phones against the body, which FCC does not currently test, and could result in RF energy exposure higher than the FCC limit.”...“FCC should formally reassess and, if appropriate, change its current RF energy exposure limit and mobile phone testing requirements related to likely usage configurations, particularly when phones are held against the body.”

Because of the separation distance allowed during testing against the body (torso), the FCC requires that manufacturers must inform consumers to always maintain this separation distance used at testing to ensure that the exposure levels remain below the “as tested” levels:

“Specific information must be included in the operating manuals to enable users to select body-worn accessories that meet the minimum test

separation distance requirements. Users must be fully informed of the operating requirements and restrictions, to the extent that the typical user can easily understand the information, to acquire the required body-worn accessories to maintain compliance. Instructions on how to place and orient a device in body-worn accessories, in accordance with the test results, should also be included in the user instructions. All supported body-worn accessory operating configurations must be clearly disclosed to users through conspicuous instructions in the user guide and user manual to ensure unsupported operations are avoided.”

[FCC KDB 447498 D01 General RF Exposure Guidance – Section 4.2.2(4)]

The above FCC guideline is the basis for the advisories that appear in the fine print of every cell phone user manual.

In spite of the FCC requiring that consumers be made aware of this information, manufacturers print this necessary separation distance advisor in fine print “legalese” and locate the consumer disclosure in difficult to find sections of cell phone user manuals or buried within the text on the phone itself.

NOTE: This proposed ordinance seeks to make consumers aware of their cell phone manufacturers’ “separation distance” disclosure as required by the FCC. It also reiterates in consumer-friendly language the manufacturers’ message that if consumers use or carry a cell phone directly against the body (while turned ON and connected to a wireless network), they may be exposed to levels of RF radiation that exceed the federal standard.

Why should we be concerned about consumers not seeing the manufacturers’ “fine print” advisories to keep their cell phone a small distance from the body?

The manufacturers’ separation distance consumer advisories hidden in the manuals range from requiring a minimum usage distance of from 5 mm (1/5 inch) to 25 mm (1 inch) away from the torso. They seem like such small distances – why should consumers be informed?

Because, as a matter of physics, the microwave emissions from cell phones decrease sharply as the distance is increased. **Even a 5 mm separation distance makes a significant difference in reducing the exposure levels consumers will receive when the phone is used or carried directly against the body.**

Consumers have the right to know!

Survey of Berkeley Residents Affirmed Need for City to Adopt Cell Phone “Right to Know” Ordinance

Eighty-two percent (82%) of registered voters in Berkeley, California reported in a March, 2015 survey that they want to be informed when they purchase a cell phone about the manufacturer’s recommended minimum distance that the phone should be kept from the user’s body.

This manufacturer’s separation distance use advisory which is required by the Federal Communications Commission is currently located in the legal fine print of user manuals or on the phone in text menus which are difficult to find.

Other key survey findings:

- Fully, 70% of Berkeley adults were unaware that the government’s radiation tests to assure the safety of cell phones assume that the phone would not be carried against the user’s body, but instead would be held at least 1 to 15 millimeters from the user’s body.
- Two out of three (66%) were unaware that cell phone manufacturers recommend that their cell phones be carried away from the body, or used with hands-free devices.
- Fewer than one in six (15%) have seen the recommendations by cell phone manufacturers about how to best protect against overexposure to cell phone radiation.
- Almost three out of four (74%) reported that they or their children carry a cell phone against their body—tucked in a shirt or pants pocket while the phone is switched on.

Berkeley 8 Results

- Q1** Do you or children dependent on you own or use a cell phone regularly?
- Yes..... 100%
- No 0%
- Q2** Do you or your dependent children ever carry a cell phone against your body- tucked in a shirt or pants pocket- while the cell phone is switched on?
- Yes..... 74%
- No..... 26%
- Q3** Are you aware that the government's radiation tests to assure the safety of cell phones assume that a cell phone would not be carried against your body, but would instead be held at least 1- to 15 millimeters from your body?
- Yes..... 30%
- No..... 70%
- Q4** (Among those who say no on q3) If you knew that the radiation tests to assure the safety of cell phones assume a cell phone would be carried away from your body, might you change how you or your children use your cell phones?
- Yes..... 80%
- No..... 20%
- Q5** Are you aware that cell phone manufacturers recommend that their cell phones be carried away from the body, or be used in conjunction with hands-free devices?
- Yes..... 34%
- No..... 66%
- Q6** Have you ever seen or read any recommendations by cell phone manufacturers about how to best protect against overexposure to cell phone radiation?
- Yes..... 15%
- No..... 85%
- Q7** When you purchase a cell phone, would you like information about the minimum distance from your body the manufacturer recommends you carry your phone?
- Yes..... 82%
- No..... 18%
- Q8** If you are a woman, press 1. If a man, press 2.
- Woman 63%
- Man..... 37%
- Q9** If you are a Democrat, press 1. If a Republican, press 2. If an independent, press 3.
- Democrat 73%
- Republican..... 6%
- Independent..... 21%
- Q10** If you are Hispanic, press 1. If white, press 2. If African-American, press 3. If Asian, press 4. If other, press 5.
- Hispanic 6%
- White 61%
- African American..... 10%
- Asian..... 15%
- Other..... 9%
- Q11** If you are 18 to 29 years old, press 1. If 30 to 45, press 2. If 46 to 65, press 3. If you are older than 65, press 4.
- 18 to 29..... 12%
- 30 to 45..... 25%
- 46 to 65..... 42%
- Older than 65..... 21%

Berkeley Right to Know - ORDINANCE NO. 7,404-N.S.

REQUIRING NOTICE CONCERNING RADIO FREQUENCY EXPOSURE OF
CELL PHONES; ADDING BERKELEY MUNICIPAL CODE CHAPTER 9.96

BE IT ORDAINED by the Council of the City of Berkeley as follows:

Section 1. That Berkeley Municipal Code Chapter 9.96 is added to the Berkeley Municipal Code to read as follows:

CHAPTER 9.96

**REQUIRING NOTICE CONCERNING RADIO FREQUENCY EXPOSURE
OF CELL PHONES**

Section

9.96.010 Findings and Purpose

9.96.020 Definitions

9.96.030 Required notice

9.96.040 Violation - remedies

Section 9.96.010 Findings and Purpose

- A. Requirements for the testing of cell phones were established by the federal government in 1996.
- B. These requirements established “Specific Absorption Rates” (SAR) for cell phones.
- C. The protocols for testing the SAR for cell phones carried on a person’s body assumed that they would be carried a small distance away from the body, e.g., in a holster or belt clip, which was the common practice at that time. Testing of cell phones under these protocols has generally been conducted based on an assumed separation of 10-15 millimeters.
- D. To protect the safety of their consumers, manufacturers recommend that their cell phones be carried away from the body, or be used in conjunction with hands-free devices.
- E. Consumers are not generally aware of these safety recommendations.
- F. Currently, it is much more common for cell phones to be carried in pockets or other locations rather than holsters or belt clips, resulting in much smaller separation distances than the safety recommendations

specify.

G. Some consumers may change their behavior to better protect themselves and their children if they were aware of these safety recommendations.

H. While the disclosures and warnings that accompany cell phones generally advise consumers not to wear them against their bodies, e.g., in pockets, waistbands, etc., these disclosures and warnings are often buried in fine print, are not written in easily understood language, or are accessible only by looking for the information on the device itself.

I. The purpose of this Chapter is to assure that consumers have the information they need to make their own choices about the extent and nature of their exposure to radio frequency radiation.

Section 9.96.020 Definitions

For the purposes of this Chapter, the following terms shall have the following meanings, unless the context requires otherwise.

A. "Cell phone" means a portable wireless telephone device that is designed to send or receive transmissions through a cellular radiotelephone service, as defined in Section 22.99 of Title 47 of the Code of Federal Regulations. A cell phone does not include a wireless telephone device that is integrated into the electrical architecture of a motor vehicle.

B. "Cell phone retailer" means any person or entity that sells or leases, or offers to sell or lease, Cell phones to the public, where the sale or lease occurs within the City of Berkeley, including Formula cell phone retailers. "Cell phone retailer" shall not include: (1) anyone selling or leasing Cell phones over the telephone, by mail, or over the internet; or (2) anyone selling or leasing Cell phones directly to the public at a convention, trade show, or conference, or otherwise selling or leasing Cell phones directly to the public within the City of Berkeley on fewer than 10 days in a year.

C. "Formula cell phone retailer" means a Cell phone retailer that sells or leases cell phones to the public, or which offers Cell phones for sale or lease, through a retail sales establishment located in the City of Berkeley that, along with eleven or more other retail sales establishments located in the United States, maintains two or more of the following features: a standardized array of merchandise; a standardized facade; a standardized decor and color scheme; a uniform apparel; standardized signage; or, a trademark or service mark.

Section 9.96.030 Required notice

A. A Cell phone retailer shall provide to each customer who buys or leases a Cell phone a notice containing the following language:

The City of Berkeley requires that you be provided the following notice:

To assure safety, the Federal Government requires that cell phones meet radio frequency (RF) exposure guidelines. If you carry or use your phone in a pants or shirt pocket or tucked into a bra when the phone is ON and connected to a wireless network, you may exceed the federal guidelines for exposure to RF radiation. This potential risk is greater for children.

Refer to the instructions in your phone or user manual for information about how to use your phone safely.

B. The notice required by this Section shall either be provided to each customer who buys or leases a Cell phone or shall be prominently displayed at any point of sale where Cell phones are purchased or leased. If provided to the customer, the notice shall include the City's logo, shall be printed on paper that is no less than 5 inches by 8 inches in size, and shall be printed in no smaller than a 18-point font. The paper on which the notice is printed may contain other information in the discretion of the Cell phone retailer, as long as that information is distinct from the notice language required by subdivision (A) of this Section. If prominently displayed at a point of sale, the notice shall include the City's logo, be printed on a poster no less than 8 ½ by 11 inches in size, and shall be printed in no smaller than a 28-point font. The City shall make its logo available to be incorporated in such notices.

C. A Cell phone retailer that believes the notice language required by subdivision (A) of this Section is not factually applicable to a Cell phone model that retailer offers for sale or lease may request permission to not provide the notice required by this Section in connection with sales or leases of that model of Cell phone. Such permission shall not be unreasonably withheld.

Section 9.96.040 Violation – remedies

A. Each individual Cell phone that is sold or leased contrary to the provisions of this Chapter shall constitute a separate violation.

B. Remedies for violation of this Chapter shall be limited to citations under Chapter 1.28

How is this proposed legislation different from what San Francisco adopted in 2011?

On September 10, 2012, the Ninth Circuit Court of Appeals ruled in an unpublished decision that the Cell Phone Fact Sheet the city had required to be distributed at the point of sale went beyond facts as it also contained recommendations from the city that do not appear in the user manuals as to what consumers should do if they want to reduce exposure to radiofrequency energy emissions (such as to “limit cell phone use by children” and “turn off the phone when not in use”).

Because the Court saw this situation as mandating controversial statements that were not purely factual, they ruled that the city’s law violated industry’s 1st Amendment Constitutional rights.

Berkeley’s proposed Cell Phone Right to Know ordinance seeks to inform consumers of the “body-worn separation distance” disclosure and directs consumers to their particular phone manufacturers’ required “separation distance” as this crucial safety information is not visible in the packaging.

The FCC requires that consumers be made aware of these “body-worn separation distance” disclosures – so, this action is clearly in alignment with requirements already promulgated by the federal regulatory agency that oversees cell phone radiation exposure guidelines.

What are the facts about San Francisco’s settlement of their Cell Phone Right to Know Law?

From the San Francisco Department of Environment website:

“San Francisco believes the Ninth Circuit’s opinion is deeply flawed, but the City is bound by that opinion, as the district court would be in further litigation over San Francisco’s ordinance. Accordingly, San Francisco settled the case with CTIA in exchange for a waiver of attorneys’ fees. However, because the Ninth Circuit’s decision is unpublished, it is not binding on any jurisdiction other than San Francisco, and it would not be binding on any other district court in litigation over any legislation from another jurisdiction imposing disclosure requirements on retailers. Furthermore, under the Federal Rules of Appellate Procedure, no party is permitted to cite the Ninth Circuit’s unpublished opinion as precedent in future litigation.”

The CTIA dropped their suit (upon San Francisco’s repeal of the law) **prior to the court ruling on their petition for reimbursement of \$112,097 in attorney fees.**

Harvard Constitutional Law Scholar Lawrence Lessig Agrees to Defend Pro Bono Any City or State Adopting Berkeley's Cell Phone Ordinance From a Possible Lawsuit by the Telecom Industry

The 3 minute video clip below shows Harvard Law Professor Lawrence Lessig addressing the Berkeley City Council on the legal merits of the Cell Phone Right to Know ordinance they were planning to adopt:

<https://www.youtube.com/watch?v=puG4FENHthc>

For more information, please read these relevant news articles:

<http://www.newsweek.com/iphone-6-bendgate-apple-says-your-iphone-shouldnt-go-your-pocket-avoid-radiation-273313> - "Apple's Instructions Say Not to Keep Your Phone in Your Pocket Anyway"

<http://content.time.com/time/magazine/article/0,9171,2029493,00.html> - "Cell-Phone Safety: What the FCC Didn't Test"

Multifocal Breast Cancer in Young Women with Prolonged Contact between Their Breasts and Their Cellular Phones.

[West JG¹](#), [Kapoor NS](#), [Liao SY](#), [Chen JW](#), [Bailey L](#), [Nagourney RA](#).

Abstract

Breast cancer occurring in women under the age of 40 is uncommon in the absence of family history or genetic predisposition, and prompts the exploration of other possible exposures or environmental risks. We report a case series of four young women—ages from 21 to 39—with multifocal invasive breast cancer that raises the concern of a possible association with nonionizing radiation of electromagnetic field exposures from cellular phones.

All patients regularly carried their smartphones directly against their breasts in their brassieres for up to 10 hours a day, for several years, and developed tumors in areas of their breasts immediately underlying the phones. All patients had no family history of breast cancer, tested negative for BRCA1 and BRCA2, and had no other known breast cancer risks.

Their breast imaging is reviewed, showing clustering of multiple tumor foci in the breast directly under the area of phone contact. Pathology of all four cases shows striking similarity; all tumors are hormone-positive, low-intermediate grade, having an extensive intraductal component, and all tumors have near identical morphology.

These cases raise awareness to the lack of safety data of prolonged direct contact with cellular phones.

August 27, 2013

Environmental Working Group Science Review

Cell Phone Radiation Damages Sperm, Studies Show

Phones Carried on Belt or in Pants Pocket May Harm Reproductive Health

Although most scientific and public attention on the issue of the safety of cell phone radiation has focused on evidence suggesting an increased risk of brain tumors (Baan 2011), a little-noticed but growing body of research points to a new concern – sperm damage (La Vignera 2012).

In a comprehensive review of the published scientific literature, the Environmental Working Group found 10 human studies that have identified a startling variety of changes in sperm exposed to cell phone radiation. In the most striking findings, men who carried their phones in a pocket or on the belt were more likely to have lower sperm counts and/or more inactive or less mobile sperm. These findings accord with similar results in laboratory animals.

Collectively, the research indicates that exposure to cell phone radiation may lead to decreases in sperm count, sperm motility and vitality, as well as increases in indicators of sperm damage such as higher levels of reactive oxygen species (chemically reactive molecules containing oxygen), oxidative stress, DNA damage and changes in sperm morphology (see summary below).

Many men who talk on a cell phone using a Bluetooth device or other headset keep the phone in a pants pocket or clipped to a holster. This exposes their reproductive organs to cell phone radiation, and several studies have found lower sperm count and/or poorer sperm quality in men who use their phones this way than in those who do not.

Scientists have yet to identify a mechanism by which cell phone use might cause such effects (Makker 2009). However, the research appears to rule out the possibility that the changes are caused by simple heating, which is considered to be a possible source of some radiofrequency radiation-related health problems (De Iuliis 2009; Volkow 2011).

The findings are particularly significant in light of the fact that infertility affects approximately 15 percent of couples of reproductive age, and nearly half of these cases are linked to male fertility (Sharlip 2002). The number and consistency of the findings raise the possibility that cell phone radiation could be contributing to this significant public health problem and demand further investigation.

Studies linking cell phone exposure to harmful effects on sperm have been done in the United States, Australia, Austria, Hungary, Poland, Turkey and South Africa, using diverse methodologies. In some, scientists compared sperm counts and sperm health in

men who wore cell phones on the hip with those who carried them elsewhere on the body or did not use cell phones at all. In others, researchers exposed sperm to cell phone radiation under laboratory conditions. In still others, scientists examined whether there was a correlation between sperm health and the intensity of cell phone use among men undergoing evaluation for infertility.

A number of research papers include unambiguous statements on the potential of cell phone radiation to affect men's reproductive health:

- *“Keeping the cell phone in a trouser pocket in talk mode may negatively affect spermatozoa and impair male fertility” (Agarwal 2009).*
- *“Use of cell phones decreases the semen quality in men by decreasing the sperm count, motility, viability and normal morphology. The decrease in sperm parameters was dependent on the duration of daily exposure to cell phones and independent of the initial semen quality” (Agarwal 2008).*
- *“These findings have clear implications for the safety of extensive mobile phone use by males of reproductive age, potentially affecting both their fertility and the health and wellbeing of their offspring” (De Iuliis 2009).*
- *“Overall, these findings raise a number of related health policy and patient management issues that deserve our immediate attention. Specifically, we recommend that men of reproductive age who engage in high levels of mobile phone use do not keep their phones in receiving mode below waist level” (De Iuliis 2009).*
- *“Our results showed that cell phone use negatively affects sperm quality in men... Men with poor sperm quality planning for pregnancy should be advised not to use cell phones extensively” (Gutschi 2011).*
- *“The results show that human spermatozoa exposed to RF-EMR have decreased motility, morphometric abnormalities and increased oxidative stress, whereas men using mobile phones have decreased sperm concentration, motility..., normal morphology, and viability. These abnormalities seem to be directly related with the length of mobile phone use” (La Vignera 2012).*

Given the backdrop of increasing infertility rates (Swan 2006), the research findings should be a wake-up call to male cell phone users who are trying to have children or may want to in the future.

Even as scientists continue to gather new data on health risks from cell phone radiation, the findings underscore that consumers should practice simple, precautionary safe-cell-phone-use habits, such as keeping the phone away from the body, in order to protect their health and fertility.

Men, in particular, should avoid carrying a cell phone on the belt or in a pants pocket when in use.

Cell phone use in pregnancy may cause behavioral disorders in offspring

By Karen N. Peart
March 15, 2012



Exposure to radiation from cell phones during pregnancy affects the brain development of offspring, potentially leading to hyperactivity, Yale School of Medicine researchers have determined.

The results, based on studies in mice, are published in the March 15 issue of Scientific Reports, a Nature publication.

“This is the first experimental evidence that fetal exposure to radiofrequency radiation from cellular telephones does in fact affect adult behavior,” said senior author [Dr. Hugh S. Taylor](#), professor and chief of the Division of Reproductive Endocrinology and Infertility in the Department of Obstetrics, Gynecology & Reproductive Sciences.

Taylor and co-authors exposed pregnant mice to radiation from a muted and silenced cell phone positioned above the cage and placed on an active phone call for the duration of the trial. A control group of mice was kept under the same conditions but with the phone deactivated.

The team measured the brain electrical activity of adult mice that were exposed to radiation as fetuses, and conducted a battery of psychological and behavioral tests. They found that the mice that were exposed to radiation tended to be more hyperactive and had reduced memory capacity. Taylor attributed the behavioral changes to an effect during pregnancy on the development of neurons in the prefrontal cortex region of the brain.

Attention deficit hyperactivity disorder (ADHD), is a developmental disorder associated with neuropathology localized primarily to the same brain region, and is characterized by inattention and hyperactivity.

“We have shown that behavioral problems in mice that resemble ADHD are caused by cell phone exposure in the womb,” said Taylor. “The rise in behavioral disorders in human children may be in part due to fetal cellular telephone irradiation exposure.”

Taylor said that further research is needed in humans to better understand the mechanisms behind these findings and to establish safe exposure limits during pregnancy. Nevertheless, he said, limiting exposure of the fetus seems warranted.

First author Tamir Aldad added that rodent pregnancies last only 19 days and offspring are born with a less-developed brain than human babies, so further research is needed to determine if the potential risks of exposure to radiation during human pregnancy are similar.

“Cell phones were used in this study to mimic potential human exposure but future research will instead use standard electromagnetic field generators to more precisely define the level of exposure,” said Aldad.

Other Yale authors on the study include Geliang Gan and Xiao-Bing Gao.

The study was funded by grants from the Eunice Kennedy Shriver National Institute of Child Health & Human Development, and Environment and Human Health, Inc.

Citation: **Scientific Reports** 2 : 312 | DOI: 10.1038/srep00312



May 11, 2015 - Over 200 scientists from 39 nations submitted an appeal to the United Nations, UN member states and the World Health Organization (WHO) requesting they adopt more protective exposure guidelines for electromagnetic fields (EMF) and wireless technology in the face of increasing evidence of risk.

The ***“International EMF Scientist Appeal”*** asks the Secretary General and UN affiliated bodies to encourage precautionary measures, to limit EMF exposures, and to educate the public about health risks, particularly to children and pregnant women.

The ***Appeal*** highlights WHO’s conflicting positions about EMF risk. WHO’s International Agency for Research on Cancer classified Radiofrequency radiation as a Group 2B “Possible Carcinogen” in 2011, and Extremely Low Frequency fields in 2001.

Nonetheless, WHO continues to ignore its own agency’s recommendations and favors guidelines recommended by the International Commission on Non-Ionizing Radiation Protection (ICNIRP). These guidelines, developed by a self-selected group of industry insiders, have long been criticized as non-protective.

“Captured agency: How the Federal Communications Commission is dominated by the industries it presumably regulates.” Alster, Norm: Edmund J. Safra Center for Ethics, Harvard University. 2015.

Following are some excerpts that pertain to the wireless radiation industry and its corrupting influences on the FCC:

- A detailed look at FCC actions—and non-actions—shows that over the years the FCC has granted the wireless industry pretty much what it has wanted.
- Money—and lots of it—has played a part ... In all, CTIA, Verizon, AT&T, T-Mobile USA, and Sprint spent roughly \$45 million lobbying in 2013. Overall, the Communications/Electronics sector is one of Washington’s super heavyweight lobbyists, spending nearly \$800 million in 2013-2014, according to CRP data.
- As a result, consumer safety, health, and privacy, along with consumer wallets, have all been overlooked, sacrificed, or raided due to unchecked industry influence Most insidious of all, the wireless industry has been allowed to grow unchecked and virtually unregulated, with fundamental questions on public health impact routinely ignored.
- Industry control, in the case of wireless health issues, extends beyond Congress and regulators to basic scientific research. And in an obvious echo of the hardball tactics of the tobacco industry, **the wireless industry has backed up its economic and political power by stonewalling on public relations and bullying potential threats into submission with its huge standing army of lawyers. In this way, a coddled wireless industry intimidated and silenced the City of San Francisco, while running roughshod over local opponents of its expansionary infrastructure.**
- Currently presiding over the FCC is Tom Wheeler, a man who has led the two most powerful industry lobbying groups: CTIA and NCTA. It is Wheeler who once supervised a \$25 million industry-funded research effort on wireless health effects. But when handpicked research leader George Carlo concluded that wireless radiation did raise the risk of brain tumors, Wheeler’s CTIA allegedly rushed to muffle the message. “You do the science. I’ll take care of the politics,” Carlo recalls Wheeler saying.

Please read the entire treatise:

PDF: <http://bit.ly/FCCcaptured> (free)

Kindle: <http://amzn.to/1SQThCU> (nominal cost)

The Cell Phone Industry Responds to Berkeley's Cell Phone Right to Know Ordinance with Legal Intimidation (From Electromagnetic Radiation Safety - <http://www.saferemr.com>)

On June 8, 2015, CTIA—The Wireless Association filed a lawsuit and a motion for an injunction in the Federal District Court in Northern California against the City of Berkeley to block the city's cell phone "right to know" ordinance. This model law which was drafted by two of the nation's leading legal scholars was designed to withstand legal challenges from industry.

The [CTIA's lawsuit](#) claims that the ordinance violates the First Amendment rights of cell phone retailers in the City of Berkeley:

"The Ordinance compels retailers of cell phones to issue to their customers a misleading, controversial, and government-crafted statement about the "safety" of cell phones. The statement conveys, by its terms and design, the City's view that using cell phones in a certain way poses a risk to human health, particularly to children. That compelled speech is not only scientifically baseless and alarmist, but it also contradicts the federal government's determination that cell phones approved for sale in the United States, however worn, are safe for everyone."
([read more](#))

On July 6, 2015, The City of Berkeley filed its [response to the CTIA's challenge](#) of the City's cell phone "right to know" consumer disclosure ordinance.

The City makes the following arguments why the Court should not grant the CTIA's request for an injunction that would block enforcement of the ordinance:

- the City has a substantial interest in providing the consumer disclosure to inform its residents about proper cell phone use;
- the mandated disclosure is accurate, factual and noncontroversial;
- the ordinance does not violate the First Amendment and is not preempted by Federal law;
- the disclosure is not burdensome for cell phone retailers;
- the CTIA's members will not be harmed if the ordinance is enforced;
- and interfering with the ordinance is not in the public interest.

The response was submitted by Berkeley City Attorney Zach Cowan, Harvard Law Professor Lawrence Lessig, Yale Law Professor and Dean Robert Post, and Yale Law Ph.D. candidate Amanda Shanor.

The introduction to the brief summarizes the City's position:

“CTIA has launched a war based on a mistake. It labors hard to paint Berkeley’s “right to know” Ordinance as an attack on settled science. It objects with vigor to being “compelled,” as it puts it, to spread a view about cell phone safety that it claims is “scientifically baseless and alarmist,” And it links Berkeley’s motives, as it describes them, to the “unsupported proposition that cell phones are unsafe.”

But Berkeley has no purpose to engage a scientific debate through political means. Its Ordinance simply reinforces a message that the Federal Communications Commission (“FCC”) itself already requires manufacturers to disseminate...” ([read more](#))

For more information, please contact:

Ellen Marks, California Brain Tumor Association
<http://www.cabta.co>
cabta@ellenmarks.com
925-285-5437

Cynthia Franklin, Consumers for Safe Cell Phones
cwfranklin@aol.com
360-201-3959