



Part 1: Growing Concern about Electromagnetic Pollution and Cell Phones

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*“Electromagnetic fields generated by cell phones
should be considered a potential human health risk.”*

- Ronald Herberman, M. D., Dir., Univ. of Pittsburgh Cancer Institute



Left: microwave cell site tower in the Philippines. **Middle:** two cell sites on a single mast tower.

Right: “Camouflaged” monopole microwave tower called a monopal, located in Tucson, Arizona. As of September 3, 2008, there are now 1,947,083 microwave towers and antennas in the United States. Images by Wikipedia.

Earthfiles, news category.



Cell phone next to right ear is focusing
microwaves on man's head. Image © 2006 by AP.

September 5, 2008 Tucson, Arizona - “You cannot see it, taste it or smell it, but it is one of the most pervasive environmental exposures in industrialized countries today.

Electromagnetic radiation (EMR) or electromagnetic fields (EMFs) are the terms that broadly describe exposures created by the vast array of wired and wireless technologies that have altered the landscape of our lives in countless beneficial ways. However, these technologies were designed to maximize energy efficiency and convenience – but not with biological effects on people in mind. Based on new studies, there is growing evidence among scientists and the public about possible health risks associated with these technologies.”

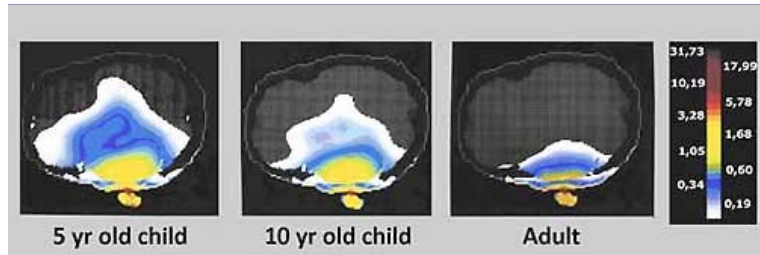
Those words are from an August 2007 report written by fourteen scientists, public health and public policy experts to document scientific evidence about electromagnetic fields and their impacts on biologies, including human brains and bodies. That 600-page text was entitled, *BioInitiative Report: A Rationale for a Biologically-based Public Exposure Standard for Electromagnetic Fields (ELF and RF)*. See **BioInitiative Report**.

The scientists' bottom line is disturbing: “What is clear is that the existing public safety standards limiting these radiation levels in nearly every country of the world look to be

thousands of times too lenient. Changes are needed.” That means everyone is being exposed to too much electromagnetic radiation and at the top of the list are microwaves from microwave cell towers and cell phones.

A year after that BioInitiative report, it provoked Dr. Ronald Herberman, M. D., Director of the University of Pittsburgh Cancer Institute, to issue an unprecedented warning on July 23, 2008, to his faculty and staff entitled, “The Case for Precaution in the Use of Cell Phones.” Dr. Herberman’s warning began, “Electromagnetic fields generated by cell phones should be considered a potential human health risk. Dr. Herberman lists eleven precautions:

“1. Do not allow children to use a cell phone except for emergencies. The developing organs of a fetus or child are the most likely to be sensitive to any possible effects of exposure to electromagnetic fields.



Estimation of the penetration of electromagnetic radiation from a cell phone based on age (Frequency GSM 900 Mhz). On the right, a scale showing the Specific Absorption Rate at different depths, in W/kg. Source: *Electromagnetic Absorption in the Human Head and Neck for Cell Telephones at 835 and 1900 MHz*.

2. While communicating using your cell phone, try to keep the cell phone away from the body as much as possible. The amplitude of the electromagnetic field is one fourth the strength at a distance of two inches and fifty times lower at three feet.
3. Whenever possible, use the speaker-phone mode or a wireless Bluetooth headset, which has less than 1/100th of the electromagnetic emission of a normal cell phone. Use of a hands-free ear piece attachment may also reduce exposures.
4. Avoid using your cell phone in places, like a bus, where you can passively expose others to your phone’s electromagnetic fields.
5. Avoid carrying your cell phone on your body at all times. Do not keep it near your body at night such as under the pillow or on a bedside table, particularly if pregnant. You can also put it on “flight” or “off-line” mode, which stops electromagnetic emissions.
6. If you must carry your cell phone on you, make sure that the keypad is positioned toward your body and the back is positioned toward the outside so that the transmitted electromagnetic fields move away from you rather than through you.
7. Only use your cell phone to establish contact or for conversations lasting a few minutes as the biological effects are directly related to the duration of exposure. For longer conversations, use a land line with a corded phone, not a cordless phone, which uses electromagnetic emitting technology similar to that of cell phones.
8. Switch sides regularly while communicating on your cell phone to spread out your exposure. Before putting your cell phone to the ear, wait until your correspondent has picked up. This limits the power of the electromagnetic field emitted near your ear and the duration of your exposure.
9. Avoid using your cell phone when the signal is weak or when moving at high speed, such as in a car or train, as this automatically increases power to a maximum as the phone repeatedly attempts to connect to a new relay antenna.
10. When possible, communicate via text messaging rather than making a call, limiting the duration of exposure and the proximity to the body.
11. Choose a device with the lowest SAR possible (SAR = Specific Absorption Rate, which is a measure of the strength of the magnetic field absorbed by the body). SAR ratings of contemporary phones by different manufacturers are available by searching for “sar ratings cell phones” on the internet.”

Electromagnetic pollution and its impact on human health has been the passionate concern of Libby Kelley, who received a Masters Degree in Public Health Administration from the University of Southern California, and is now Managing Secretariat, International Commission for Electromagnetic Safety (ICEMS), based in Tucson, Arizona. The International Commission for Electromagnetic Safety is an international group of scientists and medical doctors who do peer reviewed research on electrical and magnetic fields and electromagnetic radiation based in Venice, Italy.

Libby has worked to educate the public about the dangers of electromagnetic pollution since 1996. That was the year only 12 years ago that the Federal Telecommunications Act was passed by Congress and signed by President Bill Clinton into law. Libby learned that a microwave antenna was going to be placed at her child's pre-school, which was in a church. The telecom company agreed to pay the church \$18,000 a year in exchange for using the church's cupola to place four microwave antennas. What astounded Libby Kelley is no one could answer her questions about what microwave radiation might do to her child and the other children. Libby was also stunned that the new Federal Communications Act specifically **prohibited** local governments from taking health concerns into account when approving microwave tower sites.

Today as of September 3, 2008, there are now 1,947,083 microwave towers and antennas in the United States. [See: <http://www.antennasearch.com/>] Also, by 2008, citizen groups are increasingly trying to prevent the addition of more microwave antennas by saying "no" to telecom companies when they want to pay to put antennas in churches, schools or other public buildings. Los Angeles banned cell towers from school property.

Interview:



Libby Kelley, Managing Secretariat,
ICEMS, Tucson, Arizona

Libby Kelley, M. A., Public Health Administration, Managing Secretariat, International Commission for Electromagnetic Safety (ICEMS), Tucson, Arizona:

"Once people understand if they can get on top of this quickly, the antenna proposal does not go through. For example, Julie Kornstein, who is a member of the Los Angeles City School District Board, got an ordinance through in 2000 banning cell towers on school property. The fact there is that ordinance in L. A. city schools has gone all over the world and really inspired people.

If you live in Los Angeles and you are driving to work and your kids are playing on school grounds, even if the antenna isn't on school property, the area where the school is located might have a number of antennas. Increasingly it is becoming harder to find all of them because the industry is often forced to disguise them – which I prefer not to happen because I want to know where these are so I can avoid them.

When the cell phone company comes calling to a church or school, they typically look for a private school and churches are very easy to work with because they usually need the money.

But in Los Angeles, like everywhere else, the cell phone companies come in a stealth-like manner. They meet with the site owner. They offer something of mutual benefit. They say, 'We would be happy to help you with this roof, or finance this, or loan money for that and make you a good offer in terms of an annual fee.' They get a contract with the site owner. Once a contract is signed, the telecom company has the site owner over a barrel because they've made a commitment.

And there is a growing understanding that it's better to say no to these antennas because the science is becoming clearer all the time. The cell tower studies that have been published since 2003 are starting to be very well done and show relationships to health effects. So if it happens in the future that these cell towers are really demonstrated to be causing harm, we might not be able to get the towers down. So, it's better to not let them go up in the first place. It's just not worth it.

There is a lot more networking going on in this country among citizens, among public health advocates, scientists and medical doctors. I see the tipping point on this issue coming now. It's just that I don't know how quickly we can move given the forces. This is a *one trillion dollar* business globally, telecommunications."

The telecommunications industry is trying to stop all citizen influence on restricting cell tower sites. On July 11, 2008, the Cellular Telephone Industries Association (CTIA), petitioned the FCC to declare new limitations on local zoning authority as it affects cell tower siting. A deadline for public comments was set as September 15, 2008, by the **FCC and click here for Public Notice for Comments.**

Specifically, CTIA requests the Federal Communications Commission to:

1. Force municipalities to act on wireless antenna or tower zoning applications within 45 or 75 days.
2. Rule that applications are automatically "deemed granted" if a local government misses the FCC's deadline.
3. Prevent municipalities from considering the presence of service by other carriers in evaluating an additional carrier's application for an antenna site.
4. Pre-empt any local ordinance that would automatically require a variance for cell tower applications.

"LIBBY, THIS MEANS THAT THE FCC, UNDER PRESSURE OF CTIA, IS CONSIDERING TAKING THE TAX-PAYING PUBLIC OUT OF THE LOOP ON DECISIONS FOR THE PLACEMENT OF MICROWAVE TOWERS?"

That is exactly what is happening. How many towers do we need in this country or on the planet?! This industry intends to create a planetary network of microwave antennas that are inter-operable so we can all communicate, but our health is at stake. The planet's health is at stake. So, I really think we need to slow this down and the scientists I'm working with are calling for the development of biologically-based standards to take into account the science that shows what happens to living organisms – not just people – far below the existing electromagnetic radiation standards set by the FCC and other nations of the world.

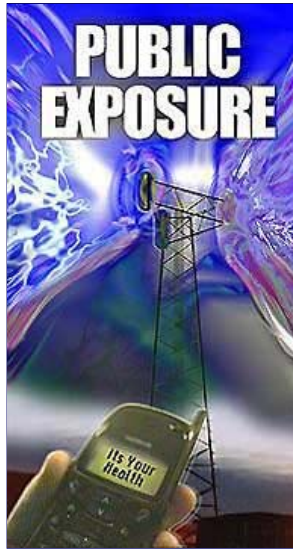
IF THERE ARE NEARLY TWO MILLION MICROWAVE ANTENNAS NOW IN THE UNITED STATES AND HUNDREDS OF THOUSANDS MORE IN OTHER NATIONS OF THE WORLD, HOW DO YOU PUT THE ELECTROMAGNETIC POLLUTION GENIE BACK IN THE BOTTLE?

That's the question that people really can't answer. Nobody wants to be a simple-minded Luddite and just say, 'Turn it off. Let's go back to a former time and pretend that none of this really happened.'

[Editor's Note: *Wikipedia* - The Luddites were an 1811 social movement of British textile artisans who protested—often by destroying mechanized looms—against the changes produced by the Industrial Revolution, which they felt threatened their livelihood.]

Technology always works this way. It happens and then the questions about efficacy and safety and health always come later. We're so in love with innovation. So, we're all owning this now. I tell people who call me concerned about an antenna, 'If you are using a cellular phone. If you own cordless phones in your home and microwave ovens, you are a consumer and you are supporting this microwave build-out.' So people really need to take their consumer behavior into account.

We've reached a point in most urban areas of the United States where we have an electromagnetic smog condition and people who have immune problems such as electrical hypersensitivity are leaving those places. They can't live there. They can't work there. Something has got to change."



Public Exposure: DNA, Democracy and the Wireless Revolution.
DVD (58 minutes) co-produced by Libby Kelley, Council on
Wireless Technology Impacts and EON International, shown at the 2003
World Social Forum in Porto Alegre, Brazil;
awarded first place in the "Globalization" category at the
Santa Cruz Earth Vision Film Festival, 2001.
To order, click here.

Continued in **Part 2.**

More Information:

EMR Network ACTION ALERT

August 29, 2008

Contact: Virginia Hines

info@EMRNetwork.org

- Industry Group Seeks to Further Erode Local Control
of Wireless Antenna and Tower Siting.
- Send Comments to the **Federal Communications Commission**
(FCC) by September 15, 2008.

Background:

On July 11, 2008, the Cellular Telephone Industries Association (CTIA), petitioned the FCC to declare new limitations on local zoning authority as it affects cell tower siting. A deadline for comments of September 15, 2008, was set by the FCC.

[http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-08-1913A1.pdf]

Specifically, CTIA requests the FCC to:

1. Force municipalities to act on wireless antenna or tower zoning applications within 45 or 75 days;
2. Rule that applications are automatically "deemed granted" if a local government misses the FCC's deadline;
3. Prevent municipalities from considering the presence of service by other carriers in evaluating an additional carrier's application for an antenna site; and
4. Preempt any local ordinance that would automatically require a variance for cell tower applications. (It seems this would in effect preempt wireless overlay districts.)

What You Can Do:

Send a letter to the FCC by September 29, 2008 requesting that they do not further preempt local zoning, stating that since 1996 municipalities have spent many hours creating legitimate bylaws unique to those areas, reflecting the will of citizens where they live, work and create community. Tell the FCC that the

CTIA's requests do not reflect the will of the people; rather this is an attempt to expedite the process for telecommunication carriers to place more antennas to service new wireless products – and undo the hard work of local boards and citizens.

Mail to:

Federal Communications Commission
445 12th St, S.W.
Washington, DC 20554

Send this Alert to your local Planning and Zoning Boards, Selectmen, City Council Representatives, with a copy of your letter, and urge them to request that the FCC, on behalf of their local citizens, deny the CTIA's requests.

Legal Actions Taken To Date:

On August 22, Montgomery County, Maryland, and NATOA et al. filed motions to extend these deadlines. **Click here to read their Motion for Extension of Time.**

For further information about electromagnetic pollution, please see reports below in the **Earthfiles Archive:**

- 09/05/2008 — Growing Concern about Electromagnetic Pollution and Cell Phones
- 05/25/2001 — Federal GAO Report Does Not Rule Out Cell Phone Dangers
- 05/14/2000 — British Cell Phone Safety Alert; Interview with Robert O. Becker, M. D.
- 02/05/2000 — Microwaves and Cell Phones - An Update
- 01/30/2000 — More Bans on Cell Phone Use by Drivers

Websites:

FCC Public Notice for Comment on CTIA Petition: http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-08-1913A1.pdf

August 2007 BioInitiative Report: <http://www.bioinitiative.org/report/index.htm>

Ronald Herberman, M. D., “Case for Precaution in the Use of Cell Phones”:
<http://www.mindfully.org/Technology/2008/Cell-Phone-Precaution23jul08.htm>

EMR Network: http://www.emrnetwork.org/actionalert_aug08.htm

Libby Kelley, ICES: <http://www.icems.eu/>

Microwave Cell Towers: http://en.wikipedia.org/wiki/Cell_site

Cell Phones: <http://www.laleva.cc/environment/cellphones.html>

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