

Recognition of the Electromagnetic Sensitivity as a Disability Under the ADA

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The Architectural and Transportation Barriers Compliance Board (Access Board) is the Federal agency devoted to the accessibility for people with disabilities. The Access Board is responsible for developing and maintaining accessibility guidelines to ensure that newly constructed and altered buildings and facilities covered by the Americans with Disabilities Act and the Architectural Barriers Act are accessible to and usable by people with disabilities. In November 1999, the Access Board issued a proposed rule to revise and update its accessibility guidelines. During the public comment period on the proposed rule, the Access Board received approximately 600 comments from individuals with multiple chemical sensitivities (MCS) and electromagnetic sensitivities (EMS).

The Board has taken the commentary very seriously and acted upon it. As stated in the Background for its Final Rule Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Recreation Facilities that was published in September 2002:

“The Board recognizes that multiple chemical sensitivities and electromagnetic sensitivities may be considered disabilities under the ADA if they so severely impair the neurological, respiratory or other functions of an individual that it substantially limits one or more of the individual’s major life activities. The Board plans to closely examine the needs of this population, and undertake activities that address accessibility issues for these individuals”.

Following its recognition of electro sensitivity and its declaration of commitment to attend to the needs of the electromagnetic sensitive, the Access Board contracted the National Institute of Building Sciences (NIBS) to examine how to accommodate the needs of the electro sensitive in federally funded buildings. In 2005 the NIBS issued a report.

The link for the report:

http://web.archive.org/web/20060714175343/ieq.nibs.org/ieq_project.pdf

From Report (page 11):

Electromagnetic Fields

For people who are electromagnetically sensitive, the presence of cell phones and towers, portable telephones, computers, fluorescent lighting, unshielded transformers and wiring, battery re-chargers, wireless devices, security and scanning equipment, microwave ovens, electric ranges and numerous other electrical appliances can make a building inaccessible.

The National Institute for Occupational Safety and Health (NIOSH) notes that scientific studies have raised questions about the possible health effects of EMF's. NIOSH recommends the following measures for those wanting to reduce EMF exposure - informing workers and employers about possible hazards of magnetic fields, increasing workers' distance from EMF sources, using low-EMF designs wherever possible (e.g., for layout of office power supplies), and reducing EMF exposure times (11).

Dafna Tachover

EHS Fight Back: <http://ehsfighback.blogspot.com/>

Jury Psychology: How Will Jurors React to EMF Claims?

Many litigators have been quoted as predicting that lawsuits over the issue of Electromagnetic Fields (EMF's) will make EMF the "next asbestos" in the civil court system. A cursory look at some of the commonalities between asbestos and EMF would support such contentions:

- **The cause of the concern is everywhere. Asbestos is (or was) in practically everything from ships to buildings to schools, just as EMF's are all around us generated by anything electrical;**
- **The fear of what might happen in the future is as prevalent as the concern over actual demonstrative injuries that currently exist, and;**
- **National "awareness" of the issue is at an all time high, making the possible acceptance by jurors of EMF exposure claims that much more likely.**

As the number of EMF claims coming to trial grows, the focus now turns to personal injury cases, those cases with real human interest stories and "newsworthy" appeal (not that property damage and livestock cases are any less worthy, just less interesting to jurors). A plaintiff discussing alleged damages on *Larry King Live* one night causes stocks of companies making cellular phones to drop steadily over the next week. There is no doubt that America is listening closely to talk of EMF (albeit no longer on their cellular phones).

But what makes this issue so appealing to the lay person and so accepted by the public? As jury analysts, our interest lies not necessarily in the validity or invalidity of the claims being made but rather in why the issue is so compelling and what psychological factors are being brought to bear on jurors sitting for these cases.

There are several factors that contribute to the interest of, and decisions that will be reached by, jurors in EMF cases; these factors need to be considered by the trial attorney who takes an EMF-related case to trial.

Fears Jurors Will Bring to the Trial Setting

The claimed dangers of EMF's touch any number of fears that virtually all people hold or must regularly consider. First, there is the very general fear of the unknown. EMF's are a relatively new concept and one that many people are still unaware of to this day (although our research studies show that the level of awareness is rapidly changing). This is compounded by the fear of the unseen, as EMF's are invisible. Just like ultraviolet rays, radon, atomic radiation and even a dark room, the notion that things we can't even see are out there and affecting us reaches many people on a very primal level.

There are also the relatively transparent medical fears such as the fear of cancer. That EMF's have been linked with cancers is enough for most people. Everyone needs to have a cause for cancers, since things that "just happen" are very threatening to our sense of well-being. People who over-think the notion of random illness or what "might be" often become clinically depressed or can be otherwise diagnosed with various mental problems. Of course, cancer fears tie in with the perceived risk for future medical injuries; as with asbestos, it is the longtime exposure to EMF's that is claimed to cause cancers. Jurors are quick to believe that "too much of anything can kill you."

The list of additional fears connected to EMF's is actually quite long including: exposure is something that can be considered out of our control, and it affects children even more than adults. All of these arguments have very subtle influences on jurors, and although they can often be countered by facts, counsel needs to consider the impact of these stated, and sometimes unstated, arguments on jurors. We've found it is often the unstated arguments—those arguments the jurors carry on with themselves as a result of the attitudes and beliefs that they bring to the trial setting—that attorneys tend to neglect in their trial preparation.

Perceptions Jurors Have of the Utility Industry

Another factor that must be considered in taking an EMF case to trial is the perception jurors have of the local utility and its associated standards of care. In general, the industry is seen as very profitable but also as an industry over which jurors have little or no direct control, a decidedly influential combination. Like death and taxes, most people perceive they have little choice when it comes to how they receive electrical service or what price they are going to pay.

That many jurors, perhaps the majority, come to trial with a healthy mistrust for corporate America is no secret. Although the image of any given utility varies tremendously, it is the level of "corporateness," the manner of dealing with the public on a day-to-day basis, the responsiveness to complaints and the effort being put into answering the concerns of the public over EMF's that will weigh heavily with the jury. Since the scientific testimony relative to EMF's comes almost exclusively from the utility industry, any mistrust the juror has of the industry itself will obviously play a part in judging the credibility of the associated evidence.

The utility industry faces the same problems as many chemical companies in defending their products because the majority of the work regarding safety and standards comes from in-house research. Although some EMF studies are carried out by independent agencies, the funding still comes from within the industry, and jurors are quick to discount research they perceive as tainted. Without impeccable credentials for the investigative agency, jurors frequently assume undesirable findings are simply buried or tempered to obfuscate the true risks involved.

Finally, the scientific evidence in and of itself should be a concern for the trial team. Complicated evidence, compounded with the concept of statistical significance, leaves many jurors confused or unconvinced. Opportunities abound for both sides in the EMF debate to reach the jurors or cast doubts upon the evidence, and the party that accomplishes this objective best will have a greater chance of persuading the jury of its case.

Psychological Processes Affecting Juror Decision-Making

Why do people have these fears and beliefs? What types of psychological processes are affecting the decisions being made by jurors? Social psychology has identified any number of processes that come into play in determining how jurors view evidence and reach decisions. Two of these processes are discussed below: attitude change and attributional reasoning.

Attitude Change

Persuasion can be viewed as the art of both forming new attitudes and changing existing attitudes. Although most people think of attitudes as opinions that are held with some degree of strength, psychologists like to break attitudes into three components: cognitive, affective and behavioral. That is, regarding EMF's, jurors will have "attitudes" consisting of facts or cognitions (they do or do not know things about the topic), emotions (positive or negative feelings about the topic, including worries and fears) and behaviors (do they avoid exposure, are they consistently exposed, etc.).

Although one component can dominate the others, true attitudes and attitude change should stem from appeals to all three of the components. Thus, overwhelming jurors with factual information will not change attitudes unless you also work on the emotional component—addressing the fears associated with EMF. The plaintiff's bar seems to concentrate on the emotional component, while the defense bar usually overemphasizes the cognitive component. Appeals that try to reach all three components are often the most effective in terms of persuasion and attitude change.

It is worth noting that attitudes are sometimes easiest to change when the three components are in conflict, giving rise to internal uncertainty for the juror (e.g., "I must not be too worried because I'm exposed to EMF's in my activities every day at work and around the house. And besides, I seem to be alright.").

Attributional Reasoning.

How people make attributions (or assign causality for events) is one of the oldest areas of study in social psychology. What caused the cancer? Will jurors make the jump from correlational findings (two things do co-vary with one another)

to causation (the one caused the other)? What if there are multiple possible causes?

Research on causal reasoning has indicated people attend to three basic types of information in assigning causality for events and actions: distinctiveness information (in this case, do EMF's affect others the same way or just this plaintiff), consistency information (do EMF's always affect people) and consensus information (do others believe or agree that this is the cause). Again, by focusing jurors' attention on these three types of information, you will be much more successful at convincing them of your viewpoint.

An additional factor that is usually important to judgments of causality is the presence or absence of alternative causes for the event to be explained. The more that other logical possibilities exist, the less credence can be given to any one explanation.

Any number of other psychological processes should also be taken into consideration when presenting your case to a jury. For example, you might want to consider **impression formation processes** (how will jurors come to view your witnesses? The trial team? The opposing team?) and **group dynamics** (how can you get jurors in the minority position to stick to their opinions? Who will be the leaders in the jury room? What type of deliberation style would be best for your fact pattern, and how can you get the jury to focus on that style?). Only by examining the entire set of influences working on jurors and how those influences might interact with your fact pattern will your trial preparation be complete.

Whichever way the public (and presumably the facts) eventually swing on EMF's, the unique combination of extensive media coverage and the perceived threat to personal long term health, makes EMF litigation of unique interest to psychologists who both study and try to predict jury behavior.

BY DR. GEORGE L. CARLO

ILLUSION & ESCAPE

THE CELL PHONE DISEASE QUAGMIRE

ARE WE BEING DECEIVED?

The most skilled magician and escape artist of all time would likely be in awe of the deft illusions that have lured the global public into buying four billion life-threatening devices called cell phones. He might even give grudging kudos to such a slight of hand accomplished under the noses of a legal system claiming to protect the rights of victims — while the perpetrators escape all accountability. Just think what Houdini could have done with a trillion dollar industry behind him! It is not an illusion, but a reality that threatens the essence of our being, the futures of our children, and the fragile

In the many years that I have been before the public, my secret methods have been steadily shielded by the strict integrity of my assistants.... But then, so far as I know, I am the only performer who ever pledged his assistants to secrecy, honor and allegiance under a notarial oath.".....Harry Houdini

ecological balance of a planet already under siege. It is potentially more serious than global warming — and already claiming lives.

So, you say: "If this technology is so dangerous, why isn't it portrayed that way in the news? Do we not have scientists who study this to make the technology safe? Do we not have regulations and government policing to keep

us safe? Do we not have the news media to keep us informed? And do we not have lawyers who will advocate on our behalf to ensure that we are treated fairly?"

Yes, we have all of those protections. But they are not working to protect us. Catastrophic trouble lies ahead if corrective steps are not taken to stem the tide of danger of wireless technology.

FACT CELL PHONES CAUSE DISEASE

When cell phones were first proposed for consumer use in 1983, the fledging wireless communications industry convinced the Food and Drug Administration (FDA) that pre-market safety testing was not necessary. The rationale: cell phones were like little microwave ovens that operated at power levels too low to cause heating. Thus, because cell phones could not be used to cook food, they were deemed safe by the FDA. This core mistake in 1983 became the foundation for a quarter-century public health threat that increases daily.¹

By 1993, there were 15 million Americans using cell phones – 25 million people worldwide. A Florida lawsuit raised public questions about cell phones causing brain cancer, which caught the industry, the FDA, and the media by surprise. This prompted congressional hearings that led to a deal between the cell phone industry and the FDA to research the issue. The supposed goal would be to fill data gaps caused by the 1983 decision to forego pre-market safety testing. Now, fifteen years later, more than 280 million Americans will use cell phone at some point in 2008, with more than four billion users worldwide. The cell phone has become

How Cell Phones Penetrate

Cell phones expose you to **near field** radiation differently with age

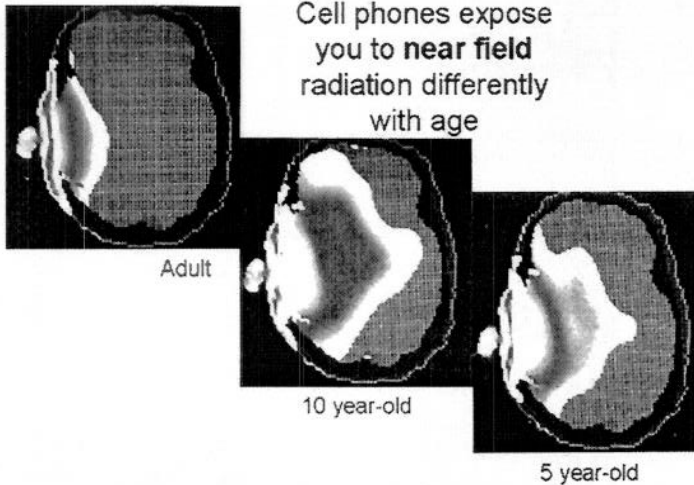


Illustration 1. The degree of penetration of the near-field plume from a cell phone antenna (illustrated in image at left) into the skull varies, based on a number of factors including frequency, wave-length, field-intensity and a person's age. The MRI models above show radio frequency radiation field penetrations by varying age while other variables are held constant.

ubiquitous among all demographic groups – including young children.

A cell phone held close to the head (as most are) allows electro-magnetic radiation to penetrate deep into brain tissue. This is where the problem begins. (See *Illustration 1*) Indeed, the primary concern 10 years ago was the penetrating near-field plume – the area within six inches of the antenna. However, that concern is now one of many, as ambient radiation has become a very serious problem for those who are electro-sensitive or otherwise symptomatic with conditions involving cell membrane sympathetic stress.

Every cell phone must be connected to a base-station antenna to be functional. Each connection results in a biologically active electromagnetic directional wave, which combines with the waves from other cell phones and wireless devices to form a mesh of information carrying radio waves (ICRW) from which there is little escape for most people. The mechanism of harm perpetrated by ICRWs is biological and therefore carries no threshold for effects – in other words, there is no absolutely safe level of exposure. All cells, tissues and organs in the range of exposure are therefore triggered, and the difference between people who develop symptoms and those who do not is related to factors such as age, state of wellness, gender and genetics.

INCREASES RISK OF TUMORS AND OTHER DISEASES ARE LINKED TO CELL PHONES

Peer-reviewed studies from around the world show cell phones and other wireless technologies ranging from WiFi in schools to transmission towers in neighborhoods, cause adverse biological effects and disease. (*See Side-Bar 1: Key Cell Phone Disease Causation References*). ICRW and other types of electromagnetic radiation can act both as direct causes of disease and as indirect antagonists or synergens, facts already known in the scientific community even as more precise scientific information is gathered.

Cause and effect (a pathological mechanism of harm) are now linked. Cumulative science has laid the groundwork to prove medical causation under stringent Daubert standards. Indeed, scientists and clinicians who study the health effects of wireless technology have shifted the debate from whether cell phones cause health problems (they do) to the urgent need for remedies than can control emerging medical problems affecting millions daily. A profound urgency exists because the most vulnerable are precisely the demographic groups most likely to need assistance: the young, the sick, the elderly and the poor.

Epidemiological studies show significant increased risk of benign and malignant brain tumors, acoustic neuroma, and melanoma of the eye and salivary gland tumors after ten years of cell phone use. Some studies suggest that even short-term use statistically increases cancer risk. Neurological disease and autism have also been linked to wireless radiation exposure.

Patients with electro-hypersensitivity, for example, cannot work in environments with any type of electromagnetic radiation exposure- areas absent exposure are almost nonexistent. These people have become permanently unemployable. Thus, the effects of cell phone radiation have drifted into areas of fundamental public policy, lifestyle choices, politics, health care, national security and personal economic viability. Some governments around the world—but not ours—have begun to take steps to protect vulnerable populations.

(*See Side-Bar 4: Governments Recommending Precautions for Mobile Phone Use Among Young People*)

The tragedy is that most of the suffering is probably avoidable. The problems associated with electromagnetic radiation health effects have been known for at least three decades, and technological solutions have been available, but not implemented, for at least twenty years. (*See Side Bar 5: The Story of J.G. Brady*)

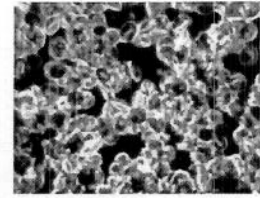
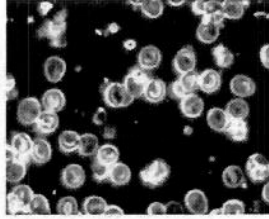


Illustration 2. Disrupted red blood cell intercellular communication occurs within minutes of exposure to Information Carrying Radio Waves. Red blood cells must be able to sense the location of other blood cells to avoid clumping. Slide at left: prior to cell phone exposure — red cells are functional. Slide at right: after five minutes on a cell phone — red cells are clumped and non-functional.

FACT ORCHESTRATED ILLUSIONS HAVE SHAPED PUBLIC OPINION

These devastating and far-reaching effects are not accidents of nature. The expanding telecommunications and internet industries have perpetrated a dangerous fraud upon the public, withholding information that would expose the risk that cell phones pose to humans and the environment, and suppressing technologies that arguably are capable of saving lives. The telecommunications and internet industries have enlisted an army of public relations, marketing and defense law personnel to apply their skills learned in the tobacco and asbestos wars to an even greater, more sophisticated ruse: the orchestrated campaign of deception that assures the public that telecommunications technology is safe. The stakes are huge: Unlike workers exposed to asbestos or those who chose to smoke, far greater numbers of Americans are vulnerable to the debilitating and harmful effects of cell phone usage, the extent of which may not be revealed for decades to come. (*See Side-Bar 6: The Cell Phone Industry Playbook: Controlling Illusion*)

The cornerstone of the industry approach: Remove any reference to detrimental cell phone health effects from the scientific and medical communities, as well as public relations and political arenas. According to the industry playbook, the sole issue is public perception- not about public

health and safety, or scientific truth. To achieve that end, the industry had found it necessary to alter scientific facts to suit the desired outcome.

(See Side-Bar 7: *Data Manipulation: Thumbs on the Scales of Science*)

The science is complex, which helps the industry promoting safety of its products to the layperson. Professional wordsmiths retained by the industry split hairs over complicated scientific concepts, including differences between thermal and non-thermal mechanisms; biological effects and health effects; replication of studies and corroborative research; and weight of scientific evidence versus proper scientific judgment. Lay journalists cannot hope to investigate such complicated nuances, and public reports of harm are so watered down that readers, listeners and viewers are left with the impression that “the issue is being looked into and so far, there are no problems.” Not surprisingly, consumers continue to buy.

The industry’s most obvious motivation is to maintain sales, as companies work on narrow profit margins. A one or two percent reduction in market share can devastate the bottom line of even the largest players. Raising the specter of health risks would obviously be bad for business.

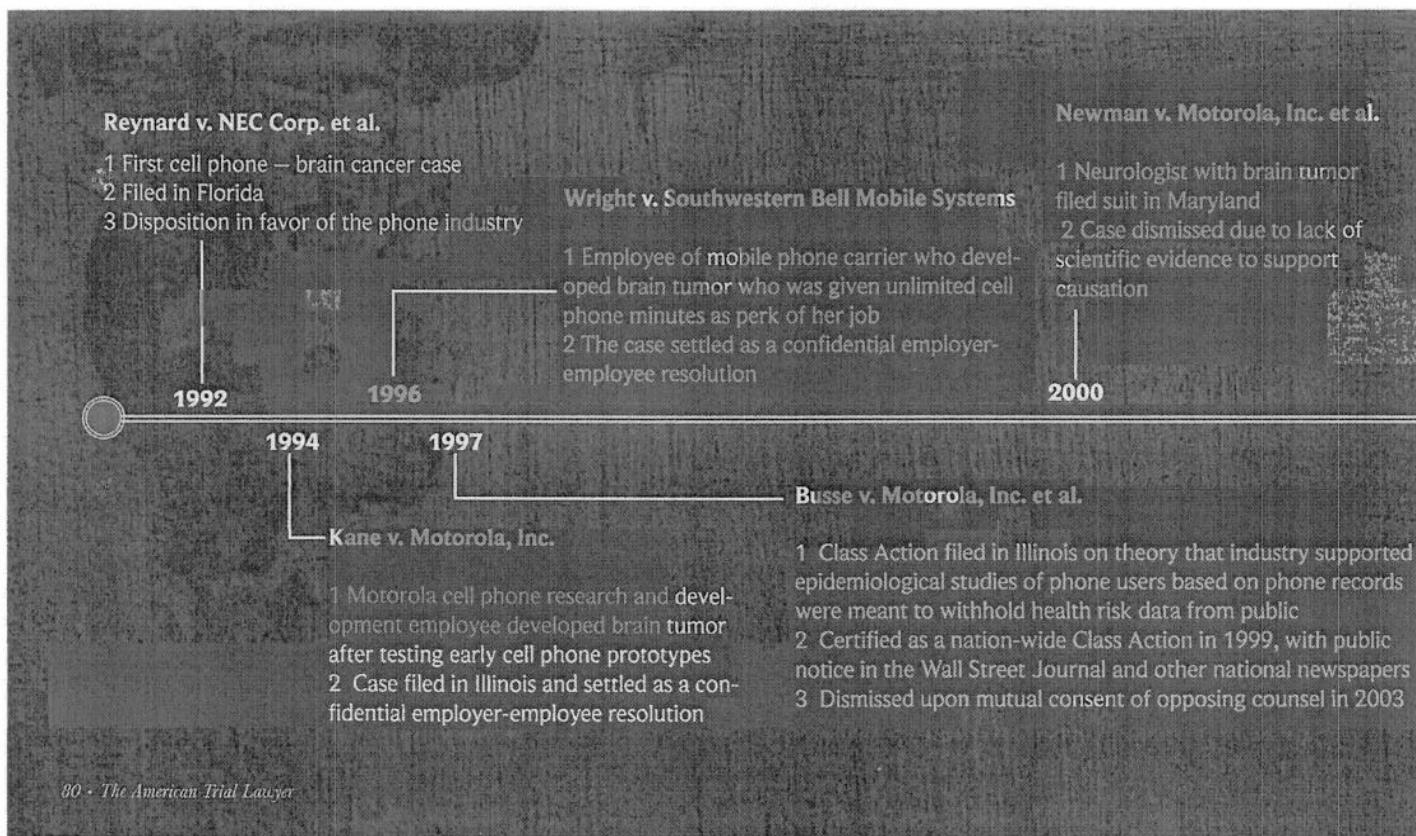
Moreover, cell phone leaders must now confront another challenge: the insurance carriers’ decision to exclude health risk claims from product liability policies marketed to the wireless industry. Beginning in 2002, major insurers excluded health risks from cell phone usage as a covered loss under policies sold to the industry. (See Side-Bar 8: *Chronology of Key Cell Phone Personal Injury Litigation*).

Insurers are well aware of potential losses associated with ongoing product liability and personal injury litigation against the cell phone industry, as well as claims of injured workers. (See Side-Bar 9: *Workers’ Compensation Cases*; Side-Bar 10: *Key Legal Precedents*)

BLURRING THE WIRELESS LINES

Wireless companies want to avoid exposure as target defendants, preferring to blend into the burgeoning information technology and internet industries. In 1999, the main cell phone industry trade association, the Cellular Telephone Industry Association, changed its name to the Cellular Telephone and Internet Association, allowing companies such as Microsoft and Apple to join. In 2005, mobile telephone entities moved into the entertainment industry — exemplified by the joint venture between Sprint and the Disney Corporation that brought Disney into the ranks of wireless signal carriers. Café companies such as Starbucks Coffee and Panera Bread have formed wireless Internet partnerships with industry leaders. These moves have diluted the potential liability for cell phone companies. These actions were intended to reduce the potential exposure of cell phone companies, and have spawned an institutional arrogance reflecting an apparent belief in their own invincibility. However, it remains to be seen whether Microsoft, Apple, Disney, Starbucks and others will agree to carry the burden of the industry’s self-inflicted liability.

Another part of the corporate strategy encourages manipulation of the consumer market, such as the effort



to convince parents and teachers that WiFi wireless Internet access at school will improve education — with no evidence to support the claim. Ironically, the pathology associated with ICRW is consistent with learning deficiencies linked to WiFi itself. Cell phones as personal safety devices also remain a selling point, despite the absence of data proving that any personal security provided by cell phones outweighs the associated health risks.

BOGUS REMEDIES EXACERBATE THE DANGER

Manipulating science for profit is not new to the wireless industry. A gamut of marketing companies and other “grass roots” participatory businesses sell numerous products, including pendants and stick-on tabs, with unsupported claims to protect consumers against the dangers of cell phones and other electro-magnetic radiation emitting devices.

The science of prevention and therapeutic intervention regarding cell phone-related diseases is still in its infancy, but one aspect is abundantly clear: no panacea yet exists to address the problem. Recent studies indicate that desperate consumers are being deceived to purchase bogus protective devices that not only give a false sense of security, but also encourage improper use of sham products that exacerbate symptoms and may lead to serious disease relapses.

Because these businesses are person to person, they escape regulation by the Federal Trade Commission or other agencies. Consequently, the companies have no incentive

to develop proper scientific data on safety and efficacy. These companies prey on ill or poorly informed consumers who can be swayed by unscientific and improbable personal testimonials and other wild claims about miracle cures. The fraud perpetrated by these ‘helpful’ companies is as damaging to public health as the ruse promoted by the wireless industry itself.

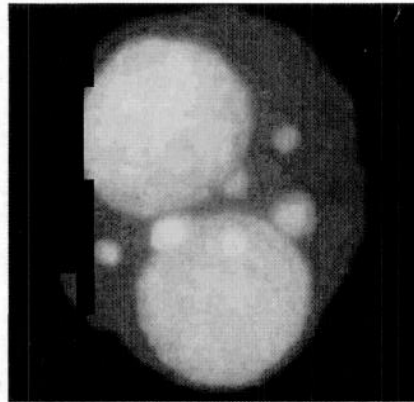
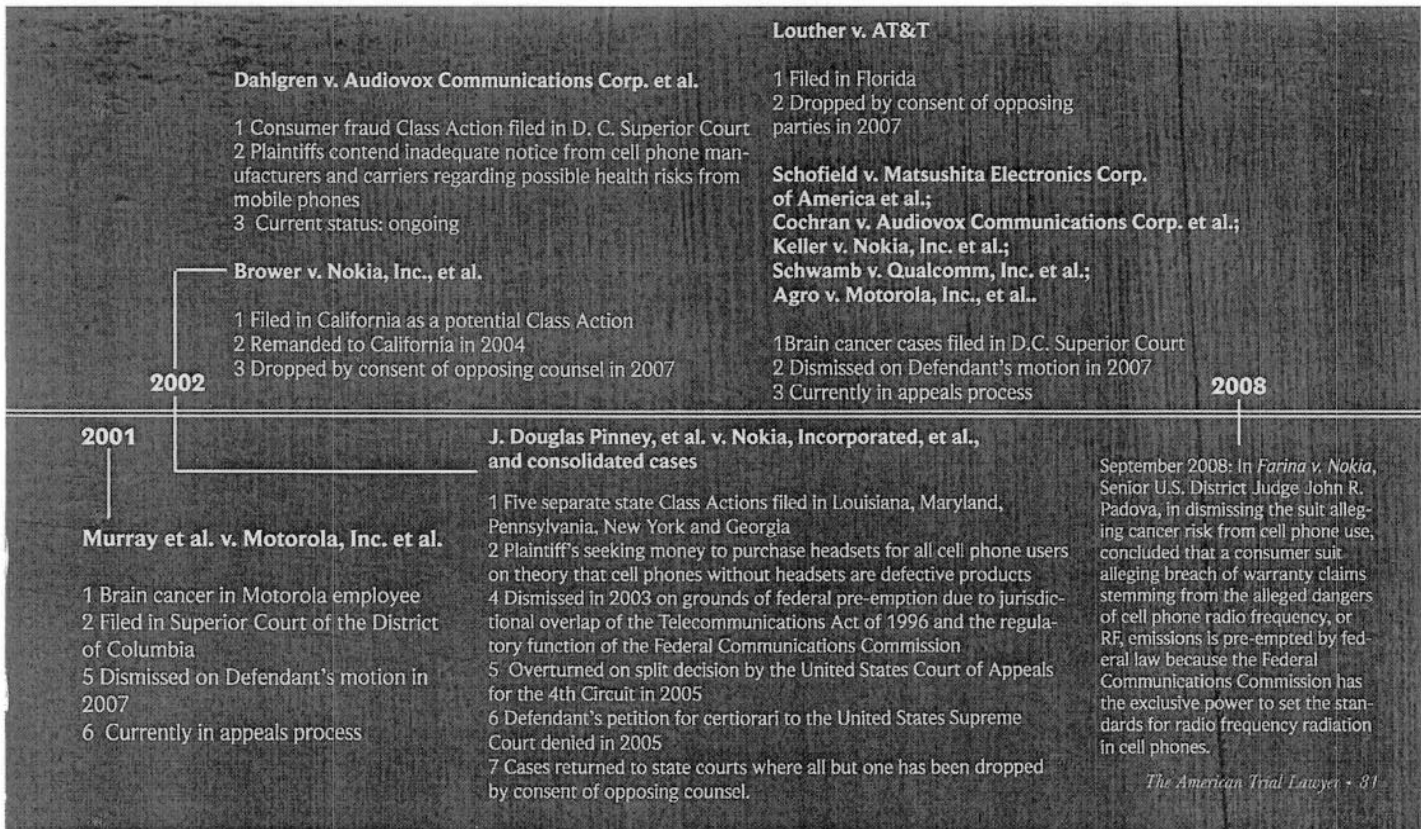


Illustration 3. Intracellular build-up of free radicals, including heavy metals, are a result of cell membrane sympathetic response to Information Carrying Radio Waves. The smaller spots in this photo are micronuclei which are indicative of disrupted DNA repair, a form of genetic damage consistent with the development of brain tumors.



SIDE-BAR 1

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FACT

THE INDUSTRY HAS ESCAPED ACCOUNTABILITY

Thus far, the cell phone industry has avoided accountability for the health and environmental damages caused by their devices and supportive infrastructure, leaving the injured without recourse. The system is not working.

Because the FDA granted the industry a variance on the requirement for pre-market safety, it is unlikely that the FDA will take further steps at protecting the public. Moreover, with respect to radiation-emitting devices, the FDA has very narrow regulatory authority: they can require pre-market testing; they can pursue post-market surveillance; they can ban products if post-market surveillance identifies problems. With upwards of 280 million Americans using cell phones, a cell phone ban is politically infeasible. Consumers cannot look to the FDA, which is not directly involved in the safety regulation of cell phones at all.

What about the Federal Communications Commission (FCC)? The wireless industry controls it. The revolving door between the FCC and the wireless industry has not stopped. Indeed, both industry and the FCC cite the over-

SIDE-BAR 2

THE CAUSAL MECHANISM

Laboratory experiments, epidemiological studies and clinical observations form a convergent database that has fostered a clear elucidation of the mechanism through which Information Carrying Radio Waves (ICRW) from cell phones and other wireless devices cause disease.

Key parts of the mechanism:

- Spatially and temporally coherent ICRW, necessary for wireless communication, do not occur in nature. When these waves resonate with cell membrane vibration receptors, they trigger a protective, sympathetic response.
- Because the ICRW are standing waves, the sympathetic response is chronic and causes a biological cascade of effects at the cellular level that includes a decrease in cell membrane permeability. This leads to cellular energy depletion, intra-cellular build-up of free radicals, and metabolic inefficiency.
- Intercellular communication is disrupted, leading to acute symptoms that are the result of cells not being able to work together as tissues, organs and organ systems. This fundamental disruption of normal physiology can lead to myriad diseases.
- As waste product becomes trapped inside cells, free-radical damage increases, including interference with DNA repair and genetic transcription.
- Disruption of DNA repair leads to the formation of micronuclei and other aberrant genetic constructs. When the burden becomes intolerable to the cell, the process of apoptosis facilitates cloning of the aberrant constructs, cell proliferation and consequent tumor development.
- Interference with genetic transcription alters the genomic fingerprint carried to daughter cells following normal mitosis, causing somatic alterations and chronic disease manifestations.

Of critical note: this causal mechanism is consistent with the unusual notion that varied diseases can follow from a single type of exposure. Thus, mobile phone exposure can plausibly lead to one type of disease in one person and another disease in another person. The differences in susceptibility are based on genetics, environment, lifestyle, occupation and other health status parameters.

routinely misrepresents as safety standards” the emission guidelines for wireless radiation promulgated under the Telecommunications Act of 1996 and administered through the FCC. The FCC has no safety authority. Thus, no safety standards exist to protect consumers from the dangers of cell phones and other wireless devices.

To date, the cell phone industry has responded to litigation by raising the shield of federal preemption, preventing fact finders from hearing scientific and medical causation testimony based on data generated after 1999.

Potential new risk from mobile phones

Scientists have discovered that exposing human endothelial cells – which line the minute blood vessels in the brain – to mobile phone radiation can damage the blood-brain barrier, a vital safety barrier that stops harmful substances in the blood from entering the brain

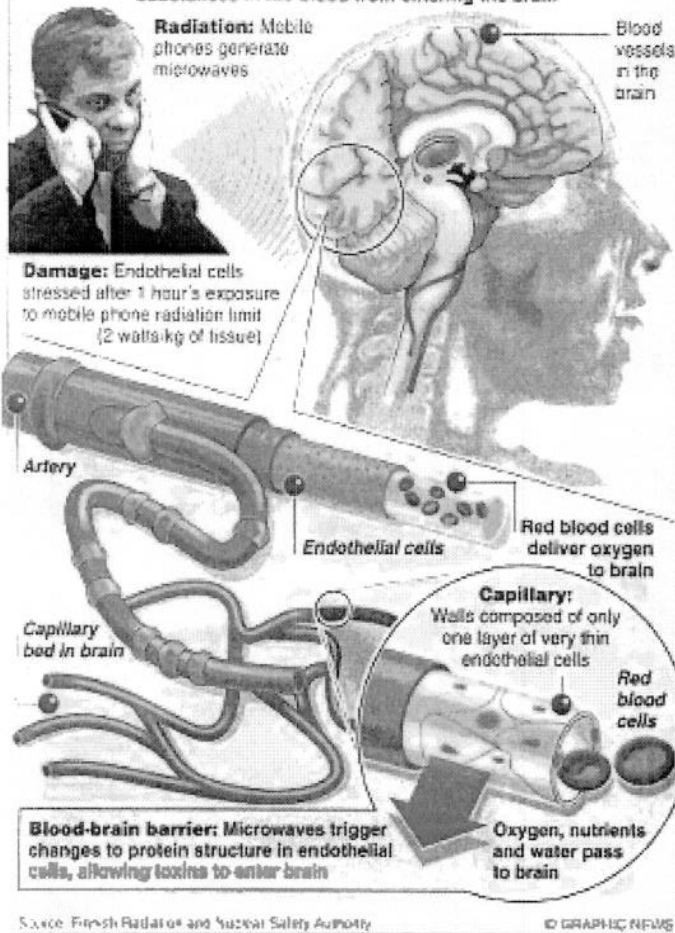


Illustration 4. Intracellular build-up of free radicals triggers premature cellular apoptosis. This leads to tissue dysfunction as illustrated in this graphic. Blood Brain Barrier leakage occurs within 10 minutes of exposure to Information Carrying Radio Waves.

lap between the two as a major reason for the tremendous growth and “success” of the wireless communications. They look after each other’s back. In a recent cell phone-brain cancer suit in the District of Columbia Superior Court, the FCC entered an amicus brief in support of the cell phone industry’s motion for dismissal. The FCC had never before become involved in state or federal court proceedings regarding cell phone dangers; the amicus brief signals a new level of bold interference by the federal agency to advance the agenda of an industry it is suppose to oversee. Further, the cell phone industry

SIDE-BAR 3

CELL PHONE-RELATED DISEASES AND EARLY WARNING SYMPTOMS

More than 1,000 peer-reviewed, published studies form the basis for establishing the link between mobile phone use and a variety of health problems.

Cell Phone-Related Diseases:

- brain, eye and salivary gland tumors;
- neurological diseases including Autism and Alzheimer's;
- debilitating illnesses including electro-hypersensitivity, anxiety syndromes, sleep disorders, and depression;
- exacerbation of immune, endocrine, gastrointestinal and reproductive system symptoms; and
- compromising efficacy of necessary medical and therapeutic interventions

Early Warning Symptoms:

- fatigue, shortness of breath and lethargy
- difficulty sleeping including restless leg and other nuisance syndromes
- difficulty keeping focus and attention deficits
- short term memory lapses
- daydreaming and staring off into space
- dizziness and tingling in extremities
- loss of appetite or persistent diarrhea
- unusually severe allergic reactions
- intolerance to alcohol
- extreme sensitivity to sunlight and noise
- impotence and sexual dysfunction
- ineffectiveness of prescription remedies

“IN the ABSENCE of sound FEDERAL GUIDELINES or vigilant regulation, LITIGATION is the ONLY option to COMPENSATE victims and deter the continued disingenuous and DANGEROUS behavior of the WIRELESS industry.”

FACT

LEGAL AND LEGISLATIVE ACTIONS ARE NECESSARY

In matters of public policy involving consumer protection, litigation and legislation has sometimes lagged in addressing rapid technological advances. Such is the case with wireless technology. To date, remedial options short of these “last resorts” have failed.

For half a century, questions have been raised about the safety of wireless devices, and for the past fifteen years, the debate has occurred in public. The passage of time has only exacerbated the public health threat, as exposure to dangerous electromagnetic fields has dramatically increased the risks with no corresponding mitigation. Instead, many consumers now face mounting medical bills, lost wages, pain and suffering attributable to wireless technology.

In the absence of sound federal guidelines or vigilant regulation, litigation is the only option to compensate victims and deter the continued disingenuous and dangerous behavior of the wireless industry.

Medical science supports personal injury litigation for cell phone-related brain tumors, parotid gland tumors, acoustic neuroma, eye cancer, neurological disorders, electro-hypersensitivity and autism.

Product liability actions will achieve several goals: compensate injured consumers; stop detrimental industry practices that victimize consumers; and put an end to fraudulent promotion of products that do not protect consumers from various types of electromagnetic radiation.

In addition to compensating victims, there is an urgent need to apply political pressure to the legislative and executive branches of government, which will result in long term solutions that ensure the health and safety of future generations.

Laws should be enacted to place health warnings on cell phones and wireless devices, as well as warning signs in public spaces that carry WiFi and other wireless signals.

The Telecommunications Act must be amended to include victims' compensation provisions; incentives for the development and commercialization of technologies to promote users from harmful electromagnetic radiation; and civil rights provisions to promote environmental and health risk protection for homeowners in communities where cell phone base stations and other wireless infrastructure are constructed.

Harry Houdini did not tell his secrets for fear that the magical illusion would be gone. Rest assured, Harry...there are no illusions here....

SIDE-BAR 4

Governments Recommending Precautions for Mobile Phone Use Among Young People

Country	Warning
India	No use in children under 16 years of age
Japan	General limitation under 18 years of age
Russia ³⁾	General limitation; no use under 12 years
France	No long calls; no use under 16 years of age
Israel	No use under 12 years of age
United Kingdom	General limitation under 12 years of age

Note: The United States does not officially recognize mobile phone health risk problems. However, the National Research Council has now recommended more research on the risks of cell phone use in children and pregnant women. This is the first such action by any U.S. government agency.

SIDE-BAR 5

THE STORY OF J.G. BRADY

(Personal Account of G. L. Carlo)

In October of 1999, following the airing of an ABC News 20/20 special on the health effects of mobile phones which featured our work, my assistant received a phone call from a fellow who identified himself as J.G. Brady. During the call, Mr. Brady indicated that he was retired military, and that he had served as secretary for the U.S. Joint Chiefs of Staff. He indicated that he had information that I needed to see. I was not able to take the call, but suggested that he send the information to us in a letter.

We received his 17-page letter two days later, but regretfully I not read it until the first of December. After reading the first page, I attempted to call Mr. Brady on the phone. The phone number he gave in the letter was disconnected. As I continued to read the letter, I was stunned by its contents, page after page. We tried to reach Mr. Brady in all ways at our disposal: the letter had a P.O. Box return address that had been closed a week earlier; his number was unlisted in Seattle, Washington, where the letter originated; he appeared to have no other family in Seattle, as we attempted to call all of the 'Brady's' listed in the telephone book. I later gave the letter to the CBS 60 Minutes news magazine, but they were also unable to find Mr. Brady. I later passed the letter to Washington ABC News reporter Del Walters, who was not able to find Mr. Brady, but indeed was able to confirm the viability of the contents of the letter through interviews with a number of retired military personnel.

What did the J.G. Brady letter say?

- The military establishment had been studying radio frequency health effects since the late 1940s because of radiation poisoning occurring among radio communications personnel in the services.
- The top-secret health effects research involved commercial co-sponsors including many of the main players in the mobile phone industry of today.
- The work was completed in the late 1980s, with solutions to the health risk problems identified and readied for implementation within the armed services.
- Prior to public release of the de-classified data reports in 1992, the commercial co-sponsors were granted by the White House their request that the research findings be re-stated so as not to alarm the public with respect to dangers of wireless communication devices such as cell phones. An Executive Order was signed by President George H. W. Bush that facilitated the re-writes.
- The original research clearly identified specific health risks and remedies. In the re-stated reports, the health risk findings were absent.
- In 1996, President Bill Clinton signed an Executive Order that allowed for the original research data to be destroyed.

J.G. Brady has never been found. But, the implications of the content of his letter, much of it independently verified, are far-reaching and suggest that many of the health problems associated with wireless technology were likely avoidable.

SIDE-BAR 6

THE CELL PHONE INDUSTRY PLAYBOOK: CONTROLLING ILLUSION

The mobile telephone industry has been successful in manipulating scientific data, public opinion and public information to protect their interests, promote the unbridled sale of their technologies and create the illusion of safety — all to the detriment of public health.

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Here is how they do it.

- Public relations “hit squads” are permanently in place in trade associations and corporate offices to monitor scientific, medical and consumer information for consistency with industry interests.

- When “problems” are identified, the public impact of detrimental information is altered first through public statements and written press releases.

The media are ‘managed’ by leveraging advertising dollars

Second level ‘management’ is achieved through control of scientific research and scientific organizational channels.

- Key watch words that signal industry manipulation:

- o Expert panel reports say.....

- o Third party opinions are....

- o The ‘weight of scientific evidence’ indicates.....

- o The studies need to be ‘replicated’ before.....

- o The ‘safety guidelines’ are being met

- o More research is needed before.....

- o Scientists around the world agree that.....

- Industry institutional collaborators:

- o The World Health Organization

- o The American National Standards Institute

- o The IEEE — Institute for Electronics and Electrical Engineers

- o The International Commission on Non-Ionizing Radiation Protection

- o The American Cancer Society

- o The Bioelectromagnetics Society — BEMS

- o The Federal Communications Commission

- o The Food and Drug Administration

- Industry consultants who publicly support industry positions:

- o Dr. William Balley — Exponent Consultants

- o Dr. Linda Erdreich — Exponent Consultants

- o Dr. John Moulder — University of Wisconsin

- o Dr. Michael Repacholi — University of Rome (Italy)

- o Dr. Bernard Veyret — University of Bourdeaux (France)

- o Dr. Michael Thun — American Cancer Society

- o Dr. Joseph Roti Roti — Washington University (St. Louis)

- o Dr. John Boice — International Epidemiology Institute

- o Dr. Paolo Vecchia — International Committee on Non-Ionizing Radiation Protection

SIDE-BAR 7

DATA MANIPULATION: THUMBS ON THE SCALES OF SCIENCE

Studies funded by the mobile phone industry are more than six times more likely to find “no problem” than studies funded by independent sources. This difference is statistically significant — suggesting the occurrence is not by chance. The following is an example.

In 1995, a young epidemiology student was working as an assistant to a senior scientist when their organization was contracted by an independent group to conduct a case-control study of brain tumors and cell phone use. When the lead investigator passed away before the study was completed, the work continued with the student and was completed in the fall of 1998. The results were peer-reviewed and the report submitted in compliance with the research contract revealed a statistically significant doubling in risk of rare neuro-epithelial brain tumors among cell phone users.

Between 1999 and 2000, the student forged a relationship with a cell phone industry epidemiologist who had been hired to assist in ‘peer review’ of studies prior to publication.

In late 2000, a paper describing the case-control study was submitted to the prestigious Journal of the American Medical Association (JAMA). In that paper, three cases of cancer that had been part of the previous analyses had been eliminated. That change in the number of cancer cases included in the study — a breach of the protocols that had been in place since the study began in 1995 -- eliminated the statistical significance of the link between brain tumors and cell phones.

In the original peer-reviewed report, he also detailed a statistically significant correlation between the side of the head where tumors were located and the side of the head where people reported using their cell phones. Another study from Sweden that same year showed a similar significant risk increase with ipsilateral phone use. The new finding was very damaging to the mobile phone industry, especially since there was another corroborative study.

With the three cases of cancer eliminated the statistically significant correlation between the side of the head where the phone was used and the side of the head where the tumor was located also conveniently disappeared. The peer-reviewers at JAMA had no way of knowing about the data manipulation.

In the end, manipulated data were published in a highly reputable peer-reviewed journal. The industry was able to use the paper as a public relations tool. Today, the paper remains prominent in the data package the industry uses advance its position that cell phones pose no health risk.

SIDE-BAR 8

WORKERS' COMPENSATION CASES

YEAR	JURISDICTION	COMMENTS
2005	California	<ul style="list-style-type: none"> Female employee of telecommunications company who tested cell phones 8 hours per day in closed environment Brain tumor within three years after began work Levels of ICRW exposure several times higher than FCC guidelines Evidentiary hearing where scientific study findings post-2000 were presented Settlement agreement reached for \$180,000
2006	California	<ul style="list-style-type: none"> Male employee who used cell phones in his job Brain tumor within six years after began using phone Same science presented as in evidentiary hearing above Patient deceased Undisclosed amount of settlement with surviving family member
2007	Alaska	<ul style="list-style-type: none"> Maintenance worker contracted to do repairs on a tower facility he expected was not operating during the work period Developed severe cognitive and neurological damage and permanently disabled Exposures to RF were far above the FCC guidelines AT&T appealed decision and the award was upheld by the Alaska Supreme Court

Reference Assistance:
 Jeff Silva, Washington
 Bureau Chief, Radio
 Communications Reports.

SIDE-BAR 9

KEY LEGAL CITATIONS AND PRECEDENTS

CASE	PRECEDENTS
Cellular Phone Task Force v. FCC, 205 F.3d 82 (2nd Cir.	<ul style="list-style-type: none"> Addressed thermal versus non-thermal effects from RF emissions Plaintiff's loss expanded subject matter jurisdiction of the FCC to include health effects in those who are electro-sensitive and hypersensitive Decision used to validate the process whereby the FCC establishes emission standards based on input from the American National Standards Institute and the IEEE
EMR Network v. FCC, 364 U.S. App. D.C. 20, 22-25, 391 F. 3d 269, 271-74 (2004)	<ul style="list-style-type: none"> Challenged FCC process of issuing permits for infrastructure expansion without complying with EIS provisions of the National Environmental Policy Act. Plaintiff's loss established that the FCC procedures are "functionally" compliant with NEPA Re-enforced the FCC position on RF emissions by establishing presumption that FCC has "occupied the field" of RF emissions under two statutes: NEPA and the Federal Communication Act.
In re Wireless Tel. Radio Frequency Emission Prods. Liab. Litig., 216 F. Supp. 2d 474 (D. Md. 2002); In re Wireless Tel. Radio Frequency Emission Prods. Liab. Litig., 248 F. Supp. 2d 452 (D. Md. 2003), rev'd, Pinney v. Nokia, Inc., 402 F. 3d 430 (4th Cir.), cert. denied, Nokia, Inc. v. Naquin, 546 U.S. 998 (2005); In re Wireless Tel. Radio Frequency Emission Prods. Liab. Litig., 327 F. Supp. 2d 554 (D. Md. 2004)	<ul style="list-style-type: none"> Series of decisions addressing the issues of pre-emption regarding the FCC's authority over RF emissions Distinguished differences between personal injury claims and economic claims