Wire Wars Essay, Research Paper

The war over the health hazards of cellular phones is beginning to mount. The idea that cellular phones possibly cause cancer became an issue in 1993 when a gentleman sued a cell phone manufacturer saying that the phone caused his wife?s brain tumor and eventual death (Greenwald, 67). Both sides of the issue continue to blur into one gray area. The battle lines, no longer clearly defined. Research is being undertaken through every organization from The American Cancer Society to the FDA. Although there is no definite answer, more and more evidence is rolling in about the dangerous, possibly cancerous, affects of radiation emitted from the antenna on the cellular phone, into the brain.

Americans as a whole doubt the growing amount of evidence that cellular phones have adverse affects. [Jo-Anne Basile of the Cellular Telecommunications Industry Association says the science clearly contradicts warnings. "It is the opinion of policymakers and the scientific community that there are no adverse health effects from cell phones," she says (qtd. in Tuohy, D1)]. This is evident in the growth rate of the cell-phone industry. [There is a phenomenal growth of the $50 billion cell-phone industry. More than 400 million mobile phones are in use worldwide, and manufacturers expect to sell another 400 million units this year. "More cell phones will be sold this year than all the computers, TVs, personal digital assistants and pagers combined." Said Ed Snyder, who follows wireless technologies for the Chase H&Q investment firm (qtd. in Greenwald, 66)]. Americans trust that the products sold on the market are safe and unharmful. Americans thrive on new technologies that make life more convenient. Many people say they do not know what they did before the cellular phone revolution.

Cell phones aid in communication and safety and make life more expedient for the general population. A majority of people could never fathom a product used by almost every person in the world having serious detrimental health affects on them.

The debate over cellular phones addresses several key factors. The two factors surrounding the debate are Radiofrequency Fields (RF) and Specific Absorption Rates (SAR). The concern over both key factors deals with how many RF the brain absorbs (SAR).

A question that often arises [surrounding Hand-held cellular telephones and PCS devices] is whether there may be potential health risks due to the emissions from Radiofrequency Fields (RF) on hand-held cellular telephones and PCS devices. The FCC’s exposure guidelines, and the ANSI/IEEE and NCRP guidelines upon which they are based, specify limits for human exposure to RF emissions from hand-held RF devices in terms of specific absorption rate (SAR). For exposure of the general public, e.g., exposure of the user of a cellular or PCS phone, the SAR limit is an absorption threshold of 1.6 watts/kg (W/kg), as measured over any one gram of tissue (Federal Communications Commission Office of Engineering & Technology, 1998).

All of the research being conducted on the SAR of RF has varying factors. Each side of the debate has their own conclusive research. The only problem is that the FCC and the FDA?s Center for Devices and Radiological Health are beginning to issue warnings on cellular phones and encouraging people to only use the phones when necessary. The Cellular phone styles in question are those with built in antennas. Since the antenna is positioned so close to the brain during a conversation, these types of mobile phones are of concern because of the short distance between the phone’s antenna, the primary source of the RF, and the person’s head. The exposure to RF from mobile phones in which the antenna is located at greater distances from the user (on the outside of a car, for example) is drastically lower than that from hand-held phone because a

Person?s RF exposure decreases rapidly with distance from the source (Consumer Update on Mobile Phones, 1999).

The most outspoken cell-phone critic is George Carlo, whom the cellular industry hired to investigate the issue in the wake of the 1993 case of a man who sued a cellular phone manufacturer for the brain tumor his wife developed. Backed by a $25 million grant, Carlo launched a series of studies that ended last year (1999) including one that he claims shows a link between cell-phone use and a rare type of brain tumor. That report’s principal author has said the correlation could be due to chance, but Carlo is undaunted. “No one study allows you to make a definitive determination about public health,” he says. “It’s how all the pieces fit together that counts” ( qtd. in Greenwald, 67).

Researchers have also discovered that cell-phone radiation can also cause subtle,

Short-term biological effects in humans, including changes in brainwave patterns during

Sleep. For the past five years in the United States, the mobile phone industry has supported research into the safety of mobile phones. The combined results of this research has been two significant findings in particular that merit additional study:

In a hospital-based, case-control study, researchers looked for an association between mobile phone use and either glioma (a type of brain cancer) or acoustic neuroma (a benign tumor of the nerve sheath). No statistically significant association was found between mobile phone use and acoustic neuroma. There was also no association between mobile phone use and gliomas. It should be noted that the average length of mobile phone exposure in this study was less than three years. When 20 types of glioma were considered separately, however, an association was found between mobile phone use and one rare type of glioma, neuroepithelliomatous tumors (Consumer Update on Mobile Phones, 1999).

Metrocall, a leading cellular phone manufacturer, has been a leader in educating their consumers about the debate over cell phone safety. All 120 Metrocall stores across the U.S. have been instructed to hand out a one page health-and-safety bulletin that warns of the possible dangers of using a cell phone. The handout cautions parents who want phones for their children to consider pagers instead, to avoid exposing the children to any

health risks. “We try not to take sides in the argument about cell-phone safety,” says Mike Scanlon, Metrocall’s senior vice president for marketing. “But at least we can make our customers aware of the debate” (qtd. in Greenwald, 66).

Soon after Metrocall?s lead, other cellular phone moguls are beginning to follow. Later this fall, cell phone manufacturers such as Motorola and Nokia will begin to issue statements concerning the amount of RF each of their phones emit and what possible risks could follow. The once hard-to-find data-measured in “specific absorption rates,” (SAR) will come packaged with the latest models, some of which could hit stores by Christmas (Greenwald, 66).

A big problem that still exists is that scientists still haven’t reached any definitive conclusions about cell-phone radiation. Given that, consumers may grasp at whatever data is available when deciding what cell phone to buy. That will be true especially for purchases made for children, whose developing brains absorb more radiation than adult brains and who could be exposed to potential harm for decades to come. That prospect has led parents like Gilbert Yablon to just say no. “I don’t let my [eight year-old] daughter talk on the cell phone,” says Yablon, who runs a movie-graphics company just outside Los Angeles. “I’ll take the risk for myself, but I don’t want her exposed to it” (qtd. in Greenwald, 66).

The overwhelming amount of research being conducted on this problem is not expected to lull sales of cellular phones. The warning leaflets that are mandated for later this year from mobile phone manufacturers, is said to not be a factor either. This

alarming trend for some, only fuels the debate. If the rise in mobile phone use continues at the current trend, will all warnings go un-heeded?

The debate over cellular phones and their adverse health hazards will undoubtedly be waging for years. Both sides of the issue are scrambling to find a large amount of conclusive evidence for or against the health risks of mobile phones. Since the 1993 case when relatively nothing was known about the possible health hazards, a sizeable amount of research has been conducted that has produced many surprising facts that have many cellular phone moguls worried. The final bill of health or hazard of cellular phones could possibly be delayed for years to come. The data will most likely be withheld from consumers until final ?absolutely conclusive? evidence is produced. Unfortunately, the outcome could possibly be delayed or prolonged as long as the final data on cigarettes.

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