November 14, 2001

Director, Office of Zoning
Ms. Shelia Cross Reid, Chairperson
Office Of The Board Of Zoning
District Of Columbia Board Of Zoning
441 4th Street, NW (Suite 210-S)
Washington, DC 20001

Re: Application for Special Exception by SBA
Penn Branch Shopping Center
BZA Case No. 16753

Dear Ms. Reid:

I am opposed to a proposed cellular tower in the rear of the Penn Branch Shopping Center. The tower would be obtrusive and aesthetically unpleasing in an already crammed parking facility.

There has also been no thorough research done by the local or federal government on potential health risks posed by radiation emitted from such a facility (weakened immune system, tumors, neurological disorders, learning and memory problems, sleep disturbances, headaches, and skin rashes.

Thirdly, tower and base stations sites in residential zones and near schools, etc., generally decrease the desirability to own property or live near these installations.

Please oppose the construction of this tower. We the residents of ANC7B/SMD 7B07, need your support. Since the congress passed the Telecommunications Act of 1996 our city has seen a proliferation of cell towers and antennas.

Background information is also enclosed.

Thank you very much for your consideration in this matter.

Sincerely yours,

Samuel F. Howard

Samuel F. Howard, Chemist FDA/EPA (Ret.)
3705 - N - Street, S.E.
Washington, D.C. 20019
PHONE: (202) 581-4731

Enclosure
as stated

BZA
Case No. 16753
Exhibit No. 141

Board of Zoning Adjustment
District of Columbia
CASE NO.16753
EXHIBIT NO.141

9 March 2001

SUBJECT: The District of Columbia Zoning Commission Round Table to Discuss Antennas, Antenna Towers and the Structures on which they are installed

Comments:

The construction of antennas, antenna towers and the structures on which they are installed should not be separated from the purpose for which the towers are built--to accommodate telecommunications services. Since pending litigations and hearings are in progress on antennas, my comments are limited to the potential adverse effect on real estate value and the potential environmental impact of electromagnetic radiations on the community.

Potential Adverse Effects:

The antenna tower alone can adversely affect the aesthetic quality of the community, thereby depreciating the value of homes near the antenna tower. Real estate property values are primarily based on location, location, location and the cost of the homes. Most people do not knowingly purchase homes in a community where there is a potential for electromagnetic radiation exposure from antenna towers.

The towers are built to install sources to generate electromagnetic radiations (radio frequency energy) used for telecommunications services. Because of this, there is a potential for exposure to ambient antenna towers' electromagnetic radiations that are not being monitored for their ionization potential.

It is inconclusive whether the electromagnetic radiations from the antenna towers or communication devices such as cell phones pose a potential health hazard to the community. Because of the unresolved potential health problems associated with electromagnetic radiation used in telecommunications services, a moratorium should be imposed on the construction and installation of antenna towers until definitive adverse effects studies are conclusive.

Discussion:

Biological Effects of Ionizing Radiations

The existence of an agent which, though it can be neither seen, felt, nor smelled, may yet cause us severe injury or even death, forces those of us concerned with civil defense to be vitally interested in ionizing radiations. Though there are many blanks in our knowledge, the actions of ionizing radiations are at least as well understood as those of many of our common toxic chemical agents. Much of this knowledge has been derived from experiments on inanimate systems, plants, and lower animals. Additional information has resulted from the exposure of humans in the Japanese cities, for therapeutic purposes and by accident.

Ionization

Ionization is defined as the process, or the result of any process, by which a neutral atom or molecule acquires either a positive or a negative electrical charge.

Ionizing Radiation

Ionizing radiation is that radiation, either of electromagnetic waves or of particles, which, in its passage through any kind of matter, causes ionization to take place. Usually, energy absorbed from the radiation, regardless of type, will directly or indirectly result in forcing one or more electrons out of their orbital paths about the nucleus. The displaced electron plus the atom (or molecule) from which it was displaced constitute an ion pair.

Ionization occurring within tissue cells or in their immediate vicinity results in biological damage. Some information indicates that actual cell death does not take place until the cell undergoes mitosis, or cell division. Only that radiation which is absorbed produces any effect. Radiation passing through the tissue without being absorbed is of no concern to us so far as we know at present.

Reference: Civil Defense Information for Food and Drug Officials, U.S. Department of Health, Education, and Welfare, Food and Drug Administration, Washington, D.C., Second Edition

My comments on potential adverse health effects on cell phones users would repeat the comments made by Kirk A. Johnson, Ph.D. published in Health Quest (October/November 2000). Additionally, my comments on adverse health effects by cell phones users would exceed the three minutes limit allowed individual persons. Therefore, I am attaching a copy of Dr. Johnson's publication for your information and evaluation.

This publication cites several studies that indicate serious potential health effect problems on cell-phone users. One paragraph and one topic subject are quoted:

> "For example, cell-phone radiation appears able to cause genetic damage. One study on human blood published this year by Integrated Laboratory Systems in Durham, N.C., shows that the radiation can disrupt the normal repair process that restores damaged DNA--the genetic backbone of all living things. Cell phones also appear to heighten the risk of a certain type of brain tumor. Another study, published in 1999 in the New England Journal of Medicine, found that 14 of 34 persons who had developed brain tumors were cell-phone users, although heavy or frequent callers didn't seem to run an increased risk."

Topic Subject Quote:

> "Children are uniquely vulnerable to the effects of radiation."

Respectfully submitted,

Samuel F. Howard

Samuel F. Howard
Environmental Chemist
FDA/EPA (Retired)

Member of Dupont Park Civic Association

WINNER OF CONGRESSIONAL BLACK CAUCUS BEACON OF LIGHT AWARD

HEALTHQUEST

Total Wellness for Body, Mind & Spirit

OCTOBER/NOVEMBER 2006

Special Section: Dealing With Diabetes

Are Cell Phones Safe?

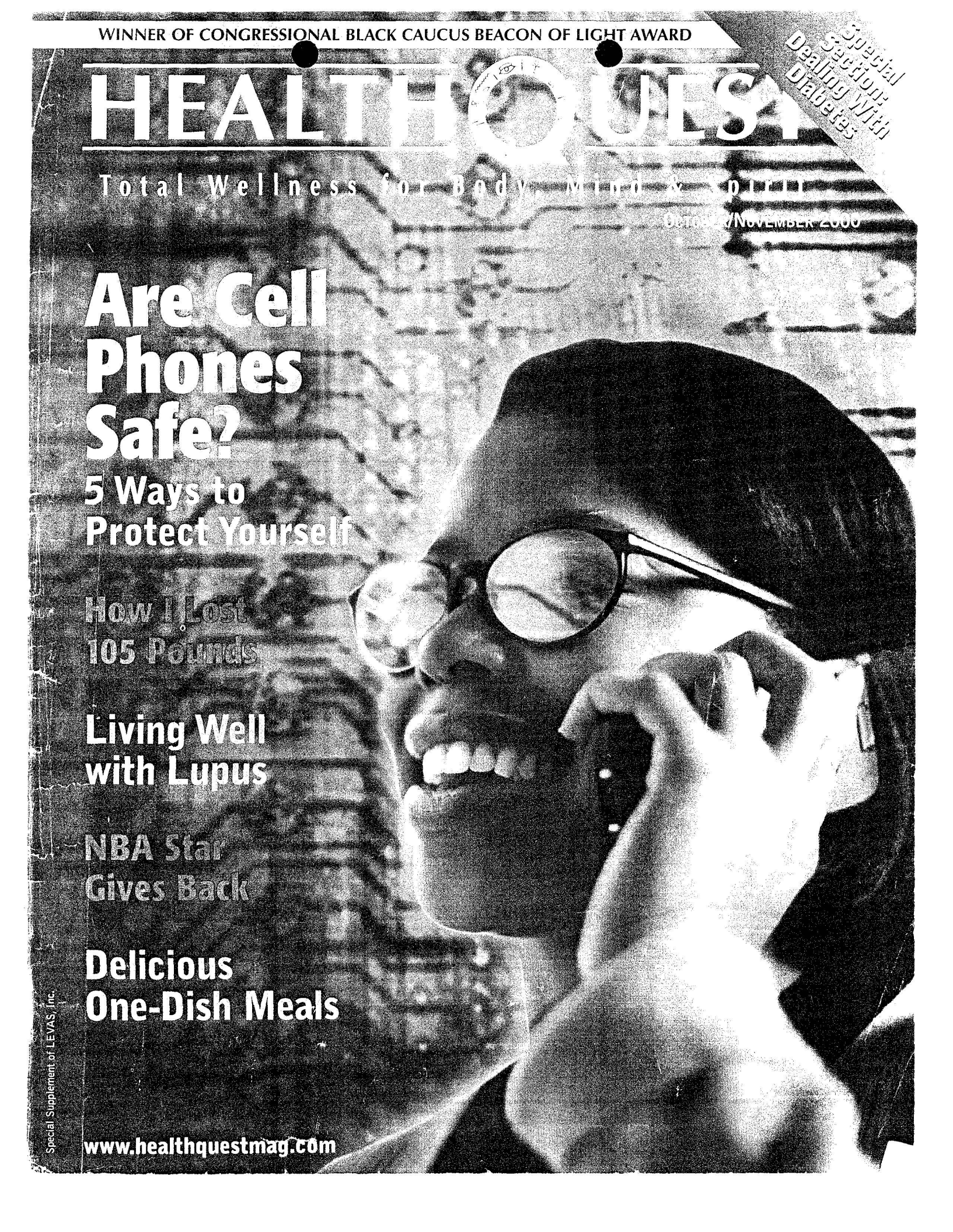
5 Ways to Protect Yourself

How I Lost 105 Pounds

Living Well with Lupus

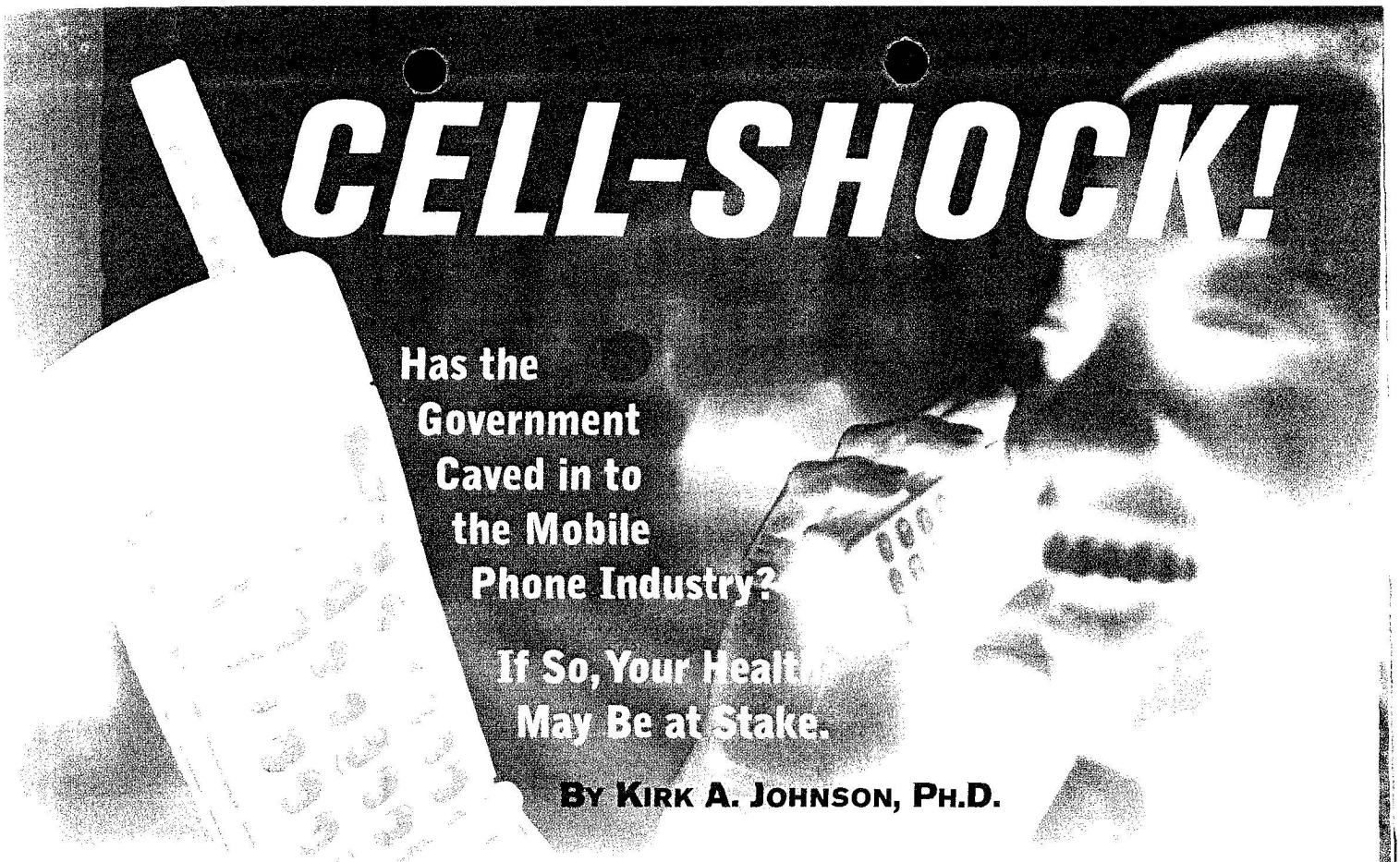
NBA Star Gives Back

Delicious One-Dish Meals



Special Supplement of LEVAS, Inc.

www.healthquestmag.com



CELL-SHOCK!

Has the Government Caved in to the Mobile Phone Industry?

If So, Your Health May Be at Stake.

By Kirk A. Johnson, Ph.D.

Some modern conveniences African-Americans can live without. (Tanning beds come to mind.) But when it comes to the telephone, Black folks just gotta have it. African-American households outspend White families on phone service—$847 versus $747 per year on average, according to Target Market News, a Chicago-based market research firm that studies African-Americans' shopping habits.

Lots of those dimes get dropped on cell-phone service, for which Black folks paid a staggering $527 million in 1999. To put that number in perspective, we spent more on cell phones last year than we did for color TVs ($525 million) or refrigerators and freezers ($522 million). In other words, if Oprah looks a little fuzzy around the edges, we'll deal with it after we reach out and touch someone.

But is our desire to have the latest telephone technology hazardous to our health? A cell-phone industry whistleblower had to go public last year before at least one federal agency finally decided to study whether the amount of cell-phone radiation that reaches a user's brain is dangerous. (More on that later.) By that time, nearly 100 million mobile phones were already on the market in the U.S. alone. Many have been snapped up by status-conscious black teens who wouldn't be caught without their "cells." Others have gone to security-conscious parents who, prompted by the communications industry's sweet-sounding "family plans," see mobile phones as the ideal way to keep tabs on their kids—and each other—in a volatile, uncertain world.

Are cell phones the answer to a dream or a health nightmare waiting to unfold?

For answers to that perplexing dilemma, let's start by understanding how cell phones work. Wireless phones transmit calls by using microwave signals (also called

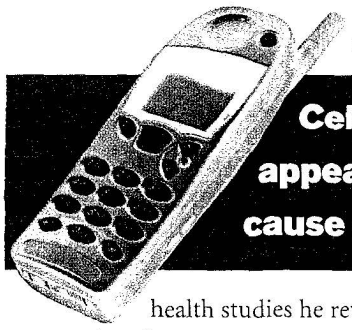
radiofrequency energy or RF). Until recently, scientists believed microwaves were different from more powerful ultraviolet waves and x-rays, which damage DNA and prohibit it from passing accurate genetic information to the next generation of cells. Researchers thought that microwaves were just strong enough to jostle molecules enough to heat them—that's how your microwave oven warms up last night's lasagna—but not strong enough to damage DNA or cause potentially cancerous mutations. Now those beliefs have been called into question.

Cell phones are much less powerful than a microwave oven. They send out low levels of radiation—about 0.6 watts of power, compared to the 100-watt blast from a standard oven. But unlike the oven, phone radiation is concentrated within a few inches of the antenna, near a typical user's head. That worries some federal regulators, who wonder whether current radiation limits are enough to prevent problems from possible lower-level exposure.

For example, cell-phone radiation appears able to cause genetic damage. One study on human blood published this year by Integrated Laboratory Systems in Durham, N.C., shows that the radiation can disrupt the normal repair process that restores damaged DNA—the genetic backbone of all living things. Cell phones also appear to heighten the risk of a certain type of brain tumor. Another study, published in 1999 in the *New England Journal of Medicine*, found that 14 of 34 persons who had developed brain tumors were cell-phone users, although heavy or frequent callers didn't seem to run an increased risk.

The uncertainty behind these findings troubles many health experts, including epidemiologist and lawyer George Carlo, Ph.D., M.S., J.D., who revealed them last year. Dr. Carlo led a six-year $27 million safety review for the cell-phone industry until 1999, when he reported these two unexpectedly alarming findings to his industry bosses. They downplayed his concerns, so he went public.

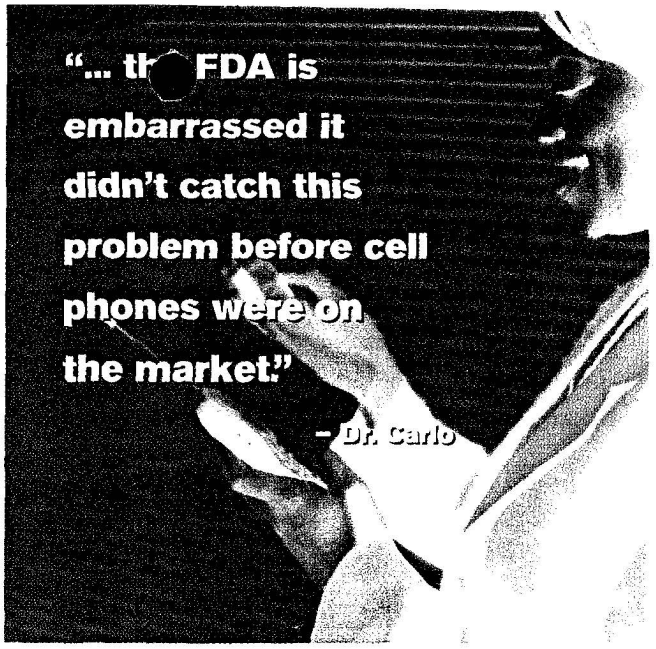
"When we began our research in 1993 I never dreamed we would find any problems," admits Dr. Carlo. Indeed, most of the 50 or so



Cell phone radiation appears to be able to cause genetic damage.

health studies he reviewed give cell phones a resounding thumbs-up.

But the cautionary studies worry him. "If these phones are interfering with gene repair, they could cause tumors, hurt the immune system and affect every other genetically determined function of the human body," he says. Writing in *Medscape General Medicine*, an online medical journal, Dr. Carlo and coauthor Rebecca Steffens Jenrow, M.P.H., conclude, "legitimate questions...from recent studies [of cell-phone radiation] make claims



of absolute safety no longer supportable."

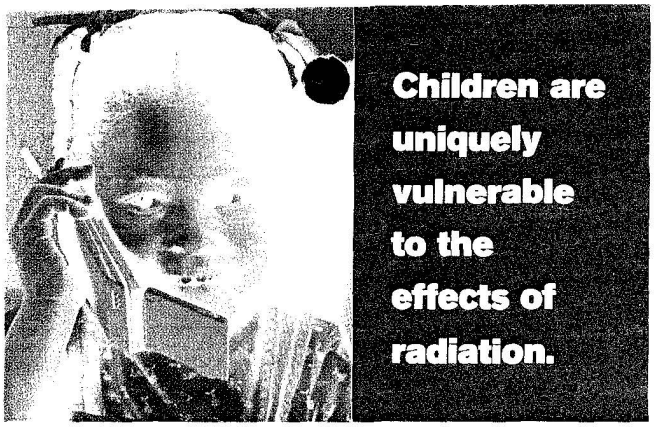
Other experts have similar concerns. The International Agency for Research on Cancer is comparing the cell-phone exposure of 3,000 brain-tumor patients with the same number of healthy people from the same communities; results are expected in 2003 or 2004. And the National Cancer Institute is targeting cell phones as part of a comprehensive review of what causes brain cancer.

Watchdog Without Teeth

If that's not enough to kick up your ulcer, consider this: according to Dr. Carlo, not a single cell phone—not one—has ever been tested for safety by the U.S. government. The Food and Drug Administration (FDA), which regulates radiation-producing devices, admits it never reviews safety data on devices like cell phones before they are marketed. "Had these problems been discovered beforehand, federal regulations would have prohibited cell phones from ever being allowed on the market," states Dr. Carlo, who now heads Health Risk Management Group, a public health research firm in Washington, D.C. That's because the FDA could have required manufacturers to make mobile phones safer before they could be sold.

So thank heavens the government can make the industry monitor for health problems once products are already in consumers' hands. Post-market surveillance, it's called. Except the FDA isn't doing that either. "I think the FDA is embarrassed that it didn't catch this problem before cell phones were on the market," speculates Dr. Carlo. "If you make too much of an issue now, it makes the FDA look bad."

For its part, the FDA is tight-lipped about its failure to regulate cell phones either before or after the fact. The agency refers cell-phone inquiries to its Web site (www.fda.gov), which offers few clues to its anti-regulatory posture. "We don't have anything to add to what's on our Web site," explains Sharon Snyder of the FDA's public affairs office.



Which is not to say the agency is ignoring cell phones altogether. Last June, in fact, the FDA announced a collaborative research project to investigate the health effects of wireless phone emissions. But the fine print is less than reassuring. The FDA's collaborators—the telecommunications industry—are the very folks the agency is supposed to regulate. The plan is for the FDA to give research "recommendations" to the Cellular Telecommunications Industry Association, a trade group, which will pay third parties to conduct the actual research. The FDA will also require manufacturers to display on product packaging the amount of radiation each cell phone emits, although this still begs the question of how much radiation is safe.

And when the studies are completed three to five years from now, don't expect the FDA to charge into battle on consumers' behalf. The agency plans to report the research findings not to Congress, or the public, but to—of all people—the cell phone industry.

It's impossible to say whether cell-phone radiation poses a dangerous threat; at this point, the science just isn't in. But the uncertainties make it wise to heed Dr. Carlo's advice: "We can argue about the significance of the red flags, or we can take steps now to reduce or eliminate possible hazards. Even if the risks are small, it affects so many people." In other words, it makes sense to be cautious.

That caution is especially critical for children, who are uniquely vulnerable to microwave (and other) radiation. It takes over 20 years for the brain to fully mature and a child's thinner skull makes it easier for radiation to penetrate. Children are vulnerable to advertising pressures, too. You may not realize it, but the telecommunications industry is picking up where the tobacco marketers left off, manufacturing cell phones featuring Mickey Mouse's face and giving away free phones to schools.

See the box below for what you can do today to help avoid possible health problems tomorrow. In the meantime, as convenient as mobile phones are, for most of us it makes good common sense to try to conduct long conversations on a conventional phone and talk on our cells as little as possible. Not so long ago, that was our only option.

Using cells safely

IF USING A CELL PHONE IS PRACTICALLY IN your job description, you don't have to go on unemployment in the name of radiation safety. However, you might want to follow these safety precautions:

- Consider purchasing an analog phone; they emit less radiation. If you must carry the phone on your person, turn the keypad toward your body.
- Hang up when the reception gets poor. Cells emit extra radiation in low-signal zones to compensate for poor reception.
- Consider a hands-free device that keeps the antenna a safe distance from your head. Know, though, that there is conflicting information about headsets: A study published in April by Britain's Consumers' Association suggests the devices may expose users to even higher levels of radiation, while another, commissioned by the British government refuted those findings four months later. If you do use a headset, let the cord dangle away from your body rather than running along your cheek and keep the cord away from the antenna. If you use the phone in your car, a safer bet may be to have an antenna installed outside the vehicle. Additionally, according to Dr. Carlo, "Several companies are marketing devices that allegedly shield your head from antenna radiation, but it's hard to evaluate these claims since the government doesn't require testing."
- What about your child? What do you do if you want to keep tabs on a latchkey kid who wants some mobility? Well, you can always push for a pager, an alternative that doesn't emit harmful radiation at all. But if the advantages seem to outweigh the possible risks, the trick is to use the cell phone safely. Encourage your child to keep his conversations brief and get off the phone when the reception gets bad.
- To read the FDA's consumer update on mobile phones, visit www.fda.gov/cdrh/ocd/ and scroll down the list to select "mobil phones."

  For more health information and safety tips, send for Wireless Phones and Your Health: A Consumer Self-Protection Guide for the Purchase and Safe Use of Wireless Phones, a 123-page manual from Health Risk Management Group, 1711 N Street, Suite 1000, Washington, DC 20036-2811; toll-free (888) 918-HRMG; email: hrmgroup@hrmgroup.org; website: www.hrmgroup.org. The cost is $19.95 plus $5 postage and handling. —K. J.

Kirk A. Johnson, Ph.D., teaches medical sociology at Bowdoin College in Brunswick, Me.