## PATIENT SAFETY BLOG

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## Cellphone Hazards: Radiation? Maybe; Germs? Big Time

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When you get up close and personal with your cellphone, what are you exposing yourself to, literally? Dangerous radiation? Maybe. Nasty germs? Most certainly.

Two studies examining different potential hazards of cellphones have been in the news lately. One concerns the ongoing debate about the radiation risks of extended close contact with your phone, and the other concerns its hospitality to surface germs.

The first study involved members of the advocacy group Environmental Health Trust and was published in the journal Electromagnetic Biology and Medicine. It says that exposure measures per FCC guidelines underestimate how much radiation most people receive from their cellphones, according to a story in the Los Angeles Times.

The study authors say that current assessment methods use a large, liquid-filled plastic model of the adult human head, but that more than 9 in 10 people have smaller heads and therefore higher proportional exposure than what is assessed. Most important, children receive twice as much microwave radiation to the head as adults, the study estimates, and 10 times the amount to bone marrow

Not to mention the possible exposure to other body parts when, say, a phone is stowed in your pocket.

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pmalone@patrickmalonelaw.com www.patrickmalonelaw.com 202-742-1500 202-742-1515 (fax) The scariest possible side effect of cellphone use is brain cancer, although whether microwave radiation from cellphones can damage DNA and cause cancer is a subject of debate. See the National Cancer Institute fact sheet.

The Electromagnetic Biology and Medicine paper requests that the cellphone industry use a different method to certify phones for use, one that considers different sizes of users, and those who are pregnant.

A Danish cellphone study found no relationship between cellular telephone use and the incidence of cancer, but the British Medical Journal found problems with some aspects of that study. Bottom line, there are passionate researchers on both sides of this issue and we really have no definitive science to argue conclusively that cellphones do or do not pose a radiation risk. As in most things, moderation is in order. Use cellphones only as necessary, and store them, ideally, away from your body.

In contrast, it's unequivocal that your phone goes with germs like peanut butter goes with jelly.

As reported on WebMd, 9 in 10 cellphones in a United Kingdom study served as host to bacteria including *E. coli*. And the reason is simple: People don't wash their hands after using the toilet.

In this study, the *E. coli* came from fecal bacteria, which can survive on hands and surfaces for hours. The researchers studied cellphones in 12 cities across the U.K. and asked users about their hand hygiene. Here's what they learned:

- 9 in 10 phones were carriers of bacteria
- 8 in 10 hands were carriers of bacteria
- 16 in 100 hands and 16 in 100 phones bore *E. coli* bacteria.

Still, nearly everyone said they washed their hands with soap where possible, leaving the researchers to conclude that people tend to lie about hygiene habits.

If dirty hands are touching cellphones, they're also touching other surfaces. Said one of the researchers: "They're spreading fecal bugs on everything they touch really."

"We didn't ask people whether they'd used their phones in the toilet. That might be something that would be interesting to study," she said.

Well, interesting is an interesting word, but it definitely would be illuminating, probably in ways most people don't want to know.

Wash your hands. Often. It's really just that simple.

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