MICRO WAVE NEWS

A Report on Non-Ionizing Radiation

Real Microwave Oven Myths?

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We don't spend much time writing about microwave ovens, but the "Really?" column in today's *New York Times* science section prompts a few comments.

The columnist, Anahad O'Connor, asks whether people face a radiation risk from standing too close to a microwave oven and concludes that it's "not dangerous." That's about the same finding reached a couple of years ago by the Center for Science in the Public Interest (CSPI) —see "Microwave Myths" which appeared in its newsletter, *Nutrition Action*.

We agree that the risks are small, but, as with most generalities, such blanket assurances can lead people astray.

As the *Times* points out, all ovens leak to some extent. The FDA specifies two different emission standards: one for new ovens and one for those in use. The limit becomes five times higher as soon as you take the oven home from the showroom. Leakage tends to increase with the age of the oven.

We have two concerns: First, we worry about kids spending too much time peering into microwave ovens while they're cooking. This could be fun when they're bored silly at home on a rainy afternoon. In so doing, children are putting their eyes (which are very sensitive to microwave radiation) close to the spot of maximum leakage. Second, we are concerned about professional cooks and cafeteria workers who spend long hours in cramped, hot kitchens next to one or more microwave ovens. Some might characterize this as an occupational risk, but it's a health risk nonetheless.

While the *Times* and CSPI discount possible high-frequency (microwave) radiation dangers, both ignore the power-frequency EMFs associated with microwave ovens, and other energy-hungry appliances. Four feet away from a high-power microwave oven, 60 Hz magnetic fields are as high as 20 mG (100 mG, a foot away), according to the EPA (see NIEHS' EMF booklet). Remember that

the threshold for the childhood leukemia risk is widely believed to be at 3-4 mG. Transient exposures are not a major concern, but chronic exposures —here again, consider the cafeteria worker— could well present a cancer risk.

Finally, though O'Connor's short item is on ovens, it provides yet another example of the *Times'* clueless coverage of cell phones. (See, for instance, our March 29 post.) When he compares the two, O'Connor gets the power output of mobile phones wrong (it's 0.6 W, not 1.6 W; he confuses emissions and exposures) but more importantly, O'Connor, like so many others at Science Times, seems to be oblivious to the growing body of data pointing to the higher incidence of tumors (gliomas and acoustic neuromas) among long-term (>10 years) users of mobile phones. (To be fair, the *Times* is not alone in ignoring these risks as the recent item in the *Chicago Reader* points out.)

ovens, New York Times, Chicago Reader,

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