



Cell Phones Risky During Pregnancy?

Unlikely Finding: More Bad Behavior at Age 7 if Mom, Child Used Cell Phone

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May 21, 2008 -- Mothers who use cell phones during pregnancy -- and let their small children use cell phones -- increase their child's risk of serious behavior problems by 80%.

Or maybe not.

"This is just a statistical association. We don't know if it is causal or not," study researcher Jorn Olsen, PhD, tells WebMD. Olsen is professor and chair of epidemiology at the University of California Los Angeles School of Public Health.

The finding comes from a survey of mothers of 13,159 Danish children enrolled in a long-term study looking at how various exposures during pregnancy affect children's long-term health. At the time of the current survey, the children were 7 years old.

Questions about cell phone use were included in the survey because the World Health Organization has asked for more studies about the possible health effects of the ubiquitous devices.

The unexpected finding linking cell phone use during pregnancy to behavior problems doesn't prove cell phone exposure affects children. It may simply be the result of unmeasured "confounding" factors, warn study researchers and colleagues.

If true, however, the effect would be quite strong -- similar to the twofold increased risk of behavior problems seen in the children of mothers who smoke during early pregnancy and somewhat less than the threefold increased risk of behavior problems linked to alcohol use during pregnancy.

Kids whose mothers used cell phones while pregnant had a 54 % higher risk of behavior problems -- emotional problems, hyperactivity, conduct problems, and peer problems. Kids who used cell phones themselves had an 18% higher risk of behavior problems. And kids with both exposures had an 80% higher risk of behavior problems.

Cell Phone/Pregnancy Risk "Would Not Go Away"

Because they had no reason to suspect that cell phones cause behavior problems, Olsen and colleagues thought there had to be some kind of mistake.

"We tried to make it go away by controlling for smoking , which does explain

behavior problems. We corrected for social issues, and for alcohol use, and mothers' psychiatric diagnoses, and it did not go away," Olsen says. "So we were left with this. Then we said, well, we'd better publish this and see if anybody else can confirm these findings."

Some things about the findings just don't make a lot of intuitive sense. For example, only 1% of kids used cell phones more than an hour a week.

"Use of cell phones by children in this group was so infrequent and short term that the causal effect due to these exposures seems unlikely, according to our present knowledge," Olsen and colleagues note in their report.

But other things about the study seem to implicate cell phones. The more exposure women had to cell phones during pregnancy, the higher the odds of behavior problems in their child. And while risk from children's use of cell phones seems improbable, it adds to the risk from fetal exposure -- by just as much as one would expect from a real 18% increase in risk.

So what does Olsen really think about the risk from cell phones?

"This study just raises suspicion. It does not indicate a strong association, but calls for caution in using cell phones during pregnancy and early childhood," he says. "We would like pregnant women not to be concerned if they used a cell phone during pregnancy. And even for children with both mother and self use, 90% do not have these behavior problems, so even if this is real it only affects a small subset of the population."

Olsen says more research is needed. So does Joseph E. Farren, assistant vice president for public affairs at CTIA-The Wireless Association, the trade group that represents the wireless telephone industry.

"The overwhelming majority of studies that have been published in scientific journals around the globe show that wireless phones do not pose a health risk," Farren tells WebMD. "The industry supports continued research as technology continues to evolve, but wishes to stress the fact that there is a consensus among leading health organizations regarding published scientific research showing no reason for concern."

Olsen and colleagues report their findings in the July issue of the journal *Epidemiology*.

SOURCES: Divan, H.A. *Epidemiology*, July 2008; vol 19, published online ahead of print. Jorn Olsen, PhD, professor and chair of epidemiology, University of California Los Angeles School of Public Health. Joseph E. Farren, assistant vice president for public affairs, CTIA-The Wireless Association, Washington, D.C.