

Women warned of VDT danger

Study finds tripled miscarriage rate

BY DONNA ALVARADO
Mercury News Staff Writer

Women using VDTs that emit high levels of a certain kind of electromagnetic radiation have a tripled risk of miscarriage, Finnish researchers report.

The new study takes a more comprehensive look at VDT magnetic fields than a previous U.S. study that found no such risk: It is the first study to look at many different models of VDTs and the first to closely examine what are called extremely low frequency fields of radiation.

Published in the current issue of the American Journal of Epidemiology, the study will be released today. It has attracted wide attention in the computer industry.

Worker advocates said the findings should be taken seriously.
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ly by VDT workers and manufacturers in this country. One U.S. expert said that the electromagnetic fields emitted by Finnish VDTs were not likely to differ substantially from those in the United States.

"I think they're probably pretty similar," said Patrick Breyse, associate professor of environmental health engineering at Johns Hopkins University and associate director of a computer industry sponsored-group, the Center for VDTs and Health Research, founded by such companies as Apple Computer Inc. and International Business Machines Corp. Referring to the tripled risk of miscarriage, Breyse said, "It's real, and it's substantial."

However, more research is needed, he said. "No one study can be conclusive by itself."

No previous testing

More than 20 million U.S. women use VDTs in their jobs. Worker advocates said Monday that, until the Finnish study, there had been no systematic testing and studies of the health effects of electromagnetic fields emitted by VDTs.

"They've been done for power lines. They've been done on electric blankets," said Louis Slesin, editor of VDT News in New York, a consumer newsletter. "It should have been done a long time ago" on VDTs, he said.

Women who use VDTs and are concerned by the study may have difficulty getting information about radiation levels in the terminals they use. Consumer advocates said computer makers have been slow to respond to requests for specifics.

"We certainly haven't been able to get that information out of the manufacturers," said Diana Roose, research director for "9 to 5", a national advocacy group for working women. "Basically, the companies don't think it's a problem. Or if they do, they certainly don't tell us about it."

"We do not publish emissions numbers," said Marianne Lettieri, spokeswoman for Apple. "We do not believe that electromagnetic fields associated with computers pose a health risk." She added, "Certainly we want answers to the questions posed by some studies. We support further research."

There are no U.S. regulations governing how much electromagnetic radiation VDTs may emit. There isn't even an industry standard for how that radiation is measured.

One IBM executive said Monday the computer industry is working on measurement standards; the Swedish government has already done so. "The industry is moving toward measuring the equipment using those (Swedish) guidelines," said Philip Shellhaas, program director for public policy at IBM in Washington, D.C.

The Finnish study comes amid other troubling reports about workplace environmental risks to pregnancy. Last week, University of California researchers reported that women who make computer chips face a 40 percent greater chance of miscarriage because of exposure to toxic chemicals on the assembly line.

Details of study

The new VDT study looked at 585 women who worked as bank clerks and clerical workers at three firms in Finland. Information on the women's pregnancies and miscarriages, obtained from questionnaires, was confirmed by national health records.

The researchers found that there was no increased rate of miscarriage from simply using VDTs — a key finding that is consistent with previous studies. But when they analyzed many models of VDTs, they found a different pattern.

It showed the tripled miscarriage rate was linked specifically to VDT models that emitted high levels of one kind of electromagnetic field, called ELF for extremely low frequency. Of 17 models tested, four showed high ELF levels. Women who used the other 13 models, which had lower ELF levels, showed no significant increase in miscarriage risk.

The study did not list the names of the models tested.

Only one other major study has also measured electromagnetic fields surrounding VDTs to assess their health effects. That U.S. government-sponsored study, done among telephone operators and published last year, found no increase in miscarriages.