MONS 001482

Chemical Contamination of Breast Milk Is Viewed With Concern

By FRANCES CERRA

Discovery of contamination of human breast milk with dangerous chemicals such as DDT and PCBs has raised questions about the wisdom of breast-feeding, particularly for women living in urban parts of the country.

The contamination has been confirmed through tests of breast milk samples from 1,400 women in [illegible] 1976 by the Environmental Protection Agency, and by still inconclusive tests conducted by that agency and the New York State Department of Health. Based on a preliminary report of some of these findings last fall, David Rahl, Director of the National Institute of Environmental Health Sciences, said: "I don't think I'd tell young mothers to make any changes in their breast-feeding now. But we're going to have to get more E.P.A. and independent data . . . so we can have better idea what to advise.

But Benefits Stressed

There has been no further official word from the government, and proponents of breast-feeding such as La Leche League continue to stress the many proven benefits of breast-feeding over bottle feeding. It is clearly cheaper than to buy formula. For example, nursing mothers enthusiastically describe the emotional and psychological joys of doing so. For babies of parents with allergies, and who might be allergic to formula or cow's milk, breast-feeding is also clearly superior, in the opinion of medical authorities.

Most medical studies have also shown that the breast-fed baby is more resistant to disease, and record research on the composition of breast milk has shown that it contains amino acids and fats different from those in cow's milk and formula.

"Although we weigh the known immunological, nutritional and psychological benefits of breast-feeding, we believe they far outweigh the risks which at this point are theoretical," said Edwina Froehlich, executive secretary of La Leche League.

Miss Froehlich pointed out that Food and Drug Administration tests have also found contaminants in formula, among them lead. Also, the water supply in many parts of the country is far from pure, and the water is mixed with powdered formula.

"It is true that there have been no studies to show whether there is an effect on human babies of ingesting contaminated breast milk," said Joseph Hyland of the Environmental Defense Fund, "but we do have animal data and a background of biological knowledge that gives us reason for concern. There should not be an automatic decision to breast-feed."

The Fund, which has been campaigning for years for the banning of many pesticides, is among those who view the E.P.A. research findings with concern.

The 1976 E.P.A. tests found average levels of pesticides in the women tested that all exceeded the Acceptable Daily Intake levels established by the World Health Organization for adults. There are no such levels for infants. Among these pesticides were DDE, the form in which DDT is stored in the body fat. Dieldrin and Heptachlor epoxide, all of which have been shown to cause cancer in animals.

The E.P.A. has not yet completed its analysis of breast milk samples of PCBs, an industrial chemical used for years to make such things as electronic products and carbonless copy paper, and discharged by manufacturers into rivers and lakes including the Hudson and Lake Ontario. But preliminary results for 80 women showed average levels 10 times higher than the daily intake recommended by the Food and Drug Administration for infants.

In addition, preliminary tests by the New York State Department of Health found levels five to 10 times higher than the E.P.A. averages in women who regularly eat Lake Ontario fish. These findings have been viewed by the department with particular alarm because of experiments conducted at the University of Wisconsin by Dr. James Allen, a pathologist. In the experiments, rhesus monkeys were fed PCBs for six months and then bred. In a telephone interview, Dr. Allen said it was difficult for the monkeys to get pregnant, and about half of them had spontaneous abortions within the first two months of pregnancy. The infants that were born were fed by their mothers, who no longer were receiving PCB's in their diets, and within four months, he said, *half of the infants* were dead. The survivors showed signs of hyperactive behavior and learning difficulties, and were very susceptible to infections.

"If I were a physician who had women under my surveillance who were living along the Great Lakes or the Hudson River area where they were eating fish four or five times a week, I would suggest they put their infants on formula," said Dr. Allen.

The New York State Health Department has not gone as far as Dr. Allen in making such a recommendation, but a study of 500 women is under way to "try to identify a population of women who have high levels of PCBs in their milk and are likely to be placing their infants at risk," according to Dr. David Axelrod, Director of the Department's Division of Laboratories and *Research. He said a recommendation* against nursing would be made to a woman's physician if levels of PCBs were found which were equivalent to those which caused harm in the Wisconsin tests.

"It's true that this allows for no safety margin," said Dr. Axelrod. Standards for human intake are usually set at one-hundredth the level that causes no harm in animals.

Preliminary results of the New York State tests also showed evidence of breast milk contamination by Mirex, a pesticide used to control fire ants. Also a carcinogen in animals, this substance has been shown to produce nonreversible cataracts in the offsprings of rats and mice who were fed Mirex while nursing their babies.

New Survey Planned

According to Jerome Blondell, a health statistician with the E.P.A., the agency will soon begin sending questionnaires to the 1,400 mothers tested in 1976 to try to get an answer to *the most urgent question raised by* the findings of contamination: Have babies of mothers with high chemical levels suffered short-term ill effects? The agency also plans to do a new survey of more women.

Until further information is forthcoming, Dr. Jean Pakter, head of Maternity Services at the New York City Department of Health, urges women not to be "sidetracked" from breast-feeding. "I think it's unfortunate that this hysteria is being worked up," she said. "The amounts of contaminants being found are small, and unless a woman has an unusual diet or lives in certain areas, the need not be concerned."

The Environment Defense Fund, for its part, has published a booklet called "Birthright Denied: The Risks and Benefits of Breast-Feeding," and concludes in its "The ultimate decision (or whether to breast-feed) must rest with each set of parents; no [illegible] can dictate the 'right' course to take."

Diet Suggestions for Women Who Breast-Feed

For a woman concerned about the possibility that her breast milk is or will be contaminated, there are steps to take, although their effectiveness and necessity is still being debated. Food is the major source of such contaminants as DDT and PCB's, and modifying the diet is the major recommendation of La Leche League and the Environmental Defense Fund.

PCB's are found in heaviest concentrations in fish that have lived in fresh water. The Fund recommends eating no such fish. La Leche recommends eating fish no more than once a week. Salmon, carp, catfish, bowfin, sea, ocean and striped bass are suspect. Ocean fish, such as cod and haddock, are usually free of PCB's, according to the Fund.

The food sources of pesticides are meat, dairy products and fish. Pesticides and PCB's concentrate in the fatty deposits of animals. Thus, the better cooked the meat is, the lower its fat content and the less likely one is to eat pesticides. Residue tests by the United States Department of Agriculture found the highest levels of contaminants in beef, veal, chicken and turkey, and the lowest in sheep, goats and pigs.

The Fund recommends eating low-fat dairy products, such as skim milk, and avoiding butter, cream, ice cream and high-fat cheeses. It also recommends corn oil margarine because corn oil is least likely to contain pesticide residues.

A major problem with all these recommendations, however, is that no one knows how long it takes to rid the human body of chemical contaminants. The chemicals are stored in fat deposits, and it may take years for them to be eliminated. Ironically, because breast feeding draws down the fat deposits in women, it is a good way of ridding their bodies of the chemicals.

One way to avoid the dangers of contaminants may be to breast feed only briefly. This idea and others are discussed in the Fund's booklet "Birthright Denied," which thoroughly describes the pros and cons of both breast feeding and formula feeding. For formula feeding, the booklet even describes how to filter contaminants out of water used in making formula. The booklet costs $1.50, for postage and handling, and can be obtained when available from the Environmental Defense Fund, 1525 16th St. N.W., Washington D.C. 20036. Stocks have been depleted and it may be a month before more are available, according to the Fund.

However, "Birthright Denied" includes as bench marks the World Health Organization's accepted daily intake levels of pesticides.

The WARF institute, a subsidiary of the Wisconsin Alumni Research Foundation in Madison, Wis., does such testing. Researchers there urge women to have their doctors take a sample because physicians are likely to know better how to keep it free from contamination. But if a woman wants to do it herself, she should obtain a 10-cubic-centimeter vial with a top. The vial and breast pump should be washed with alcohol. After the vial is filled, a piece of aluminum foil should be put under the cap. It should be sent to WARF by [illegible] as an insulated bag with something inside to keep it cool. The fee for the test is $50.

The address of WARF is P.O. Box 7543, Madison, Wis. 53707.

A woman may consider having her milk tested for contaminants, although many experts say there is not enough information to evaluate the test results.