



ENVIRONMENTAL CHEMICALS AND HUMAN MILK

“Contaminants Found in Human Milk!” Using a teaser like this for the evening news may or may not get people to watch the news, but it is certain to capture lots of attention. It may also strike fear into the hearts of many breastfeeding mothers. Many of us choose to breastfeed because of the good things about breastfeeding and human milk. Such announcements in newspapers or on television tend to cast doubt on a mother’s decision to breastfeed, even though that is most often not the intent of the environmental researchers who release such information.

Why human milk is tested

What can we learn from these headlines? Let’s start with some little-known realities. The reason human milk gets tested in the first place is because it’s so convenient. Some environmental substances accumulate only in fat tissues. Blood, urine, and hair samples do not contain fat, which is needed for some kinds of testing. Human milk does contain fat, so researchers prefer milk as a sample tissue.

Finding volunteers to provide samples of other kinds of fat tissue is even harder than finding volunteers to provide a blood sample. Having a fat biopsy done is painful. Providing a milk sample is pain free. Nowadays, many breastfeeding mothers routinely pump their milk. Therefore, many breastfeeding mothers are able to provide samples of milk very easily.

Another factor is how headlines are crafted. Authors and publishers of studies know that mentioning breastfeeding gets attention. So do television and newspaper writers. So they use the breastfeeding angle to draw public attention to the problem of environmental chemicals.

It’s important to remember that all human bodies accumulate such substances. Young and old, male and female, parents and non-parents alike are affected, not just breastfeeding mothers. But that fact is sometimes lost because of the way the information is presented.

Breastfeeding mothers may wonder if they should have their own milk tested for environmental chemicals. Individual testing may be indicated in cases of extreme exposure, such as being involved in an industrial accident. However, such testing is of little value for most mothers. “Safe” levels of some chemicals have been set for adults,

but not for children, and it is not known how much of any particular chemical a baby may absorb from his mother’s milk. So testing levels in an individual mother’s milk won’t provide her with clear answers. Experiments to determine “safe” levels for babies might require deliberately exposing babies to potentially harmful substances. That would be considered unethical.

Breastfeeding is still vital

The World Health Organization, the American Academy of Pediatrics, and other major health associations, overwhelmingly support the importance of breastfeeding even in a contaminated world. And researchers agree that mothers should continue to breastfeed. Babies are exposed to the substances in the world around us before birth when their fast-growing bodies are most vulnerable. Researcher Sonya Lunder writes “Breastfeeding provides significant health benefits to both mother and child. In fact, careful study... indicates that it might be even more important for mothers who are concerned about their exposure to toxic chemicals to breastfeed their babies.” For example, human milk contains high levels of antioxidants, which may prove to be essential to compensate for any prenatal exposure to environmental chemicals.

Another thing to consider is that formula and other foods offered to babies are not free from these concerns. Plants and animals are also affected by the environment in which we all live. They can be exposed to various substances from their time on the farms and through the manufacturing and packaging process. Water used in processing or in preparing foods for a baby or toddler may also contain residues or substances that may be of

concern. Bottles, artificial nipples, and other feeding devices may sometimes leach chemicals into foods. Some foods offered to babies and toddlers are just plain nutritionally deficient, high in unhealthy fats, or high in artificial flavors and colorings.

Ecologically sound

In addition to providing your baby with the best nutritional and immunological start, breastfeeding your baby helps to make the environment safer and cleaner. Human milk is a natural and renewable resource. Artificial baby milks and processed baby foods contribute to ecological damage during their production, distribution, and use.

What should you do? Breastfeeding your baby will help to minimize any effects of environmental exposure. Mothers can reduce the amounts of substances that babies are exposed to before birth and while breastfeeding (see box). Though each person carries some body burden of chemicals, human milk is the perfect food for babies, species specific, and provides protection from many diseases that lasts for years after weaning. Pollution needs to be stopped at its source, not breastfeeding.

Resources:

Bauchner, E. Environmental contaminants and human milk. *LEAVEN*, Dec 2003/Jan 2004; 123-25.

Lunder, S. Personal communication

Mosteller, R. Human milk still the best choice. *NEW BEGINNINGS*, Sep/Oct 2004; 110.

Steingraber, S. *Having Faith: An Ecologist's Journey to Motherhood*. New York: Berkley Books, 2001.

Internet resources:

Breastfeeding, Breast Milk, and Environmental Contaminants. International Lactation Consultant Association (ILCA), 2003. www.ilca.org/pubs/index.php

Towards Healthy Environments for Children: Frequently asked questions about breastfeeding in a contaminated environment. World Alliance for Breastfeeding Action (WABA). www.waba.org.my/FAQ%20Oct2003-10.pdf

Breastfeeding Remains Best Choice in a Polluted World. LLLI Press Release August 2003. www.lalecheleague.org/Release/contaminants.html

For breastfeeding information, to order publications, or to find an LLL Leader near you, use our Web site at:

www.lalecheleague.org

Or phone: 800 LA LECHE (9-5 Central Time) 847-519-7730 (24-hour messages)

Reduce your family's exposure to environmental chemicals

- Avoid smoking cigarettes and drinking alcohol since levels of environmental chemicals are higher in those who smoke and drink alcoholic beverages.
- When renting or purchasing a home, find out whether lead-based paints are present in the home or apartment.
- In general, eat a variety of foods low in animal fats. Remove skin and excess fat from meats and poultry. Avoiding high-fat dairy products may reduce the potential burden of fat-soluble contaminants.
- Increase consumption of grains, fruits, and vegetables. Thoroughly wash and peel fruits and vegetables to help remove pesticide residues. When available, eat food grown without fertilizers or pesticides.
- Avoid eating any type of seafood reported to be high in contaminants or freshwater fish from waters reported as contaminated by local health agencies.
- Limit or avoid use of chemical pesticides in your house and yard.
- Use chemical-free personal care products, such as insect repellent.
- Limit or avoid exposure to chemicals such as solvents found in paints, non-water based glues, furniture strippers, nail polish, and gasoline fumes.
- Limit or avoid use of dry cleaning or thoroughly air out dry-cleaned clothing before wearing.
- Try to avoid contact with incinerator discharge, preserved wood, or produce grown near incinerators.
- For those in the workforce, attempt to avoid occupational exposure to chemical contaminants and seek improved workplace chemical safety standards for all employees, especially pregnant and lactating women.
- Educate other family members about environmental chemicals and encourage them to avoid potential sources in foods and household products.