

# Potential 'Toxic Threat':

## Flame-retardant chemicals found in breast milk

By Warren King

*Seattle Times medical reporter*

Potentially toxic levels of flame-retardant chemicals have been found in the breast milk of Puget Sound women, an environmental watchdog group says.

In a sampling of nine women by Northwest Environment Watch, the chemical levels were 20 to 40 times higher than those found in studies of Japanese and European women. The substances, called PBDEs, have been shown to impair learning and memory in laboratory animals, indicating they might have an effect on developing human fetuses.

"We believe this is definitely an emerging toxic threat to Puget Sound residents," said Clark Williams-Derry, research director of the Environment Watch, a Seattle-based research and advocacy group. "They are most likely in the bodies of all Puget Sound residents."

Flame retardants containing PBDEs (polybrominated diphenyl ethers) are used in plastic-based products such as furniture foam, carpets, some textiles (but not baby clothing) and in consumer electronics.

The Northwest Environment Watch and Washington Toxics Coalition, which also sponsored the study, urged that the flame-retardant chemicals be phased out in Washington. Safer chemicals, natural materials and better furniture designs are available to resist fire, the groups said.

Williams-Derry acknowledged that the study is very small and unlikely to be statistically valid by itself. It is part of an incomplete study of 40 women, including some in Portland and Vancouver, B.C. The incomplete study was released in part, he said, to show evidence of the problem to the state Legislature, which is considering funding for controlling the toxins.

Gov. Gary Locke issued an executive order last month directing the state departments of Ecology and Health to develop a plan for reducing the use of PBDEs. He allocated \$50,000 from the governor's emergency fund and asked the Legislature for \$83,000 more to develop a plan by the end of this year.

Human studies of PBDEs have not been conducted. But the chemicals are very similar structurally to PCBs, which are known to build up in the environment and affect learning development in humans.

"The main concern is the effect (of PBDEs) on the developing fetus," said Joanne Prado of the state Department of Health. The chemicals also are believed to affect thyroid hormone function in children and adults, she said.

Prado and Williams-Derry emphasized that women should not stop breast feeding because of the chemicals' presence.

Breast milk carries important nutrients and provides protection against illnesses. Its benefits far outweigh the risk — if there is any — from PBDE exposure through the milk, they said.

He said the average PBDE concentration in the breast milk of nine women sampled was 50 parts per billion. Studies in Sweden showed an average of 2.1 parts per billion in breast milk, and studies in Japan found 1.3 parts per billion in blood samples.

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