

NORTHWEST ENVIRONMENT WATCH

www.northwestwatch.org/toxics

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For immediate release

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Northwest women contaminated with toxic flame retardants

Breastmilk study confirms needs for chemical phase-out; says breastfeeding still best for baby and mom

A new study of 40 mothers from Oregon, Washington, British Columbia, and Montana found PBDEs (polybrominated diphenyl ethers) in the breastmilk of every woman tested. PBDEs—toxic chemicals widely used as flame retardants in furniture foams, industrial textiles, and consumer electronics—have been shown to have a wide range of health effects on laboratory animals. Overall, the levels of PBDEs in the study were 20 to 40 times higher than levels found in European and Japanese women.

“The women in the study have some of the highest PBDE levels on record,” said Clark Williams-Derry, research director for Northwest Environment Watch (NEW), the Seattle research and communication center that conducted the study. “It’s more evidence that we need to phase these chemicals out.” The study confirms other research that PBDEs are building up rapidly in people and the environment, with levels in many countries doubling every two to five years.

The report emphasized that mothers should continue breastfeeding. Research shows that despite the presence of contaminants, breastfeeding is the healthiest choice for infants; benefits include reducing the risk of many illnesses in infants, as well as the incidence of anemia and some cancers in women. Breastmilk was chosen as a measure because it is the most convenient body fluid to obtain and study, and because it provides a good proxy for contamination levels experienced by the developing fetus.

Specific findings from the report include:

- **High PBDE levels:** PBDEs were found in all 40 breastmilk samples tested, suggesting that all northwesterners are contaminated with PBDEs. Levels ranged from 6 to 321 parts per billion (ppb), as measured in milk fat, with a median level of 50 ppb (half the samples were above 50 ppb and half below). Fifteen of the 40 women tested had at least 100 ppb of PBDEs in their milk. These levels are comparable to levels found in other studies in North America, but 20 to 40 times higher than levels found in Sweden and Japan. Median PBDE levels in North America have risen dramatically since the late 1980s.
- **Some elevated levels of deca-PBDE:** Deca-PBDE (PBDE-209), the most widely used form of PBDE, was detected in 24 of the 40 samples tested; levels were as high as 4 ppb, which exceeds the total concentration of all PBDEs typically found in Japanese or northern European samples. Because the bromine industry has long held that deca-PBDE is minimally toxic, deca-PBDE has not received the same regulatory scrutiny as other forms of PBDEs. But new studies suggest deca-PBDE can break down into other forms of PBDE that are more harmful and more readily absorbed by people.

- **Results by region:** Oregon women had the highest median level of the four regions, with a median of 99 parts per billion; Montana and Washington women had median levels of 55 and 53 ppb, respectively. British Columbia women generally had the lowest levels, with a median of 32 ppb. Further testing is needed to clarify whether these differences are representative of each region's population.
- **Health effects similar to those of PCBs:** Studies on laboratory animals have shown that PBDEs can impair memory and learning, alter behavior, delay sexual development, and disturb thyroid hormone levels. PBDEs are structurally similar to PCBs (polychlorinated biphenyls), a now-banned class of chemicals that have been linked with a host of developmental delays and deficits in children.
- **Exposure is unavoidable:** PBDEs are so prevalent that all northwesterners may be exposed to the compounds by inhaling dust, by handling consumer products, or through food, particularly fish. Recent studies have detected PBDEs in a wide range of supermarket foods; as well as in orcas, other marine mammals, osprey, and salmon. The fact that every woman tested contained PBDEs—regardless of their diet, age, or locale—suggests that the most effective way to reduce contamination is to stop pollution at the source and use alternatives.
- **Chemical phase-out needed:** The study recommends that Northwest jurisdictions ban all forms of PBDEs from commerce, including deca; and develop programs to monitor chemical contaminants in people. Some states are taking action: Washington State is including all PBDEs in a program to phase out persistent toxic chemicals, and recently unveiled a preliminary draft PBDE plan. An Oregon bill to be introduced next year would phase out all PBDEs by 2008, require the state to purchase PBDE-free products, and enable the state health department to evaluate the safety of other brominated flame retardants.

"It's time to stop using these dangerous chemicals, especially since viable alternatives exist and are readily available," said Laura Weiss, Oregon Environmental Council program director. "We look forward to working with state legislators to better protect our citizens' health by phasing out brominated flame retardants."

Laurie Valeriano, policy director of Washington Toxics Coalition, noted that the highest levels of deca-PBDE in the study were comparable to levels found in Swedish electronics workers who were occupationally exposed. "It is outrageous that levels of deca-PBDE in Northwest moms are so high. Washington State is moving in the right direction, but deca must be banned in electronics and all other applications to end the contamination of our breastmilk and bodies."

The report also recommends requiring more rigorous scrutiny before new chemicals are used in industry. Roughly 80,000 different synthetic compounds have been introduced since the 1940s, yet only a relative handful have been tested for their potential health effects in humans.

"I'm an average person who leads a relatively healthy lifestyle, so there's no reason for these chemicals to end up in my body," said Andrea Riseden-Perry, a Seattle-area mother who participated in the study. "Studies on chemicals should be done up front. And if there's a risk the chemical shouldn't be used."

Sweden was the first country to phase out some of the most toxic forms of PBDEs in the 1990s, followed by the European Union and the California legislature; after Sweden removed PBDEs from the marketplace, contamination levels in breastmilk began to decline. The report notes that economically viable alternatives to PBDEs do exist and companies such as Ikea and Volvo have already eliminated PBDEs from their products.

Northwest Environment Watch is a Seattle-based research center that monitors regional progress. More information on the study and methodology is available at www.northwestwatch.org/toxics.

Portland, Oregon press conference: A press conference for Portland broadcast media will be held September 29, 10:30am, at the Multnomah County Library in downtown Portland, (801 SW 10th Ave at Taylor). Visuals included. Call Laura Weiss for more information, 503-222-1963 ext. 111.