

**Testimony of
Environment and Human Health, Inc.**

By
Nancy Alderman, President

Bill No. 6332

**AN ACT CONCERNING TOXIC FIRE RETARDANTS IN CHILDREN'S
PRODUCTS. -- RAISED BILL NO. 6332**

**Senator Dante Bartolomeo and Representative Diana Urban and Members of the
Children's Committee:**

**ENVIRONMENT AND HUMAN HEALTH, INC. IS IN STRONG SUPPORT OF
THIS IMPORTANT BILL**

Recent research suggests that chemicals used as flame-retardants are rapidly building up in the bodies of people and wildlife around the world. The concentrations of these chemicals in tissues appear to be approaching levels in American women that are capable of harming the developing nervous systems of fetuses, infants and children.

In 1977, The U.S. Consumer Product Safety Commission (CPSC) announced the ban of children's clothing containing the flame-retardant commonly known as Tris because it was carcinogenic. The pajama use of Tris was banned - but unbelievably, it is now being used today in baby products that are made with polyurethane foam - such as nursing pillows, car-seats, crib mattresses, high-chairs, etc. This exposes our smallest children to carcinogens that in the 1970's was deemed too dangerous to put in children's pajamas.

A study of California children found that prenatal and childhood exposures to flame-retardant chemicals may lead to poorer attention, motor skills and IQ scores in children at ages 5 and 7. These findings add to the growing health concerns over flame retardant chemicals that are commonly found in U.S. homes.

This is the largest study to compare exposures to flame retardants with these behaviors. It is also the most comprehensive study to evaluate both prenatal and postnatal flame retardant, PBDE, exposure in school-aged children. The results confirm findings from previous research that links PBDE exposure to neurodevelopment effects in children.

In the United States there has been no action to regulate flame-retardants in a way that would protect human health, and instead their use continues to rise. About half of the 135 million pounds of flame-retardants used worldwide in 2001 were applied to products in North America.

Scientists who specialize in human tissue body burdens say that they haven't seen a chemical build up in human bodies and the environment as quickly as that of some flame-retardants in almost half a century. The flame-retardants are as potent and long lasting as PCB's and DDT- chemicals that began to accumulate in the environment and human tissues in the 1950's and were banned in the 1970's. Even if many flame-retardants were banned today, they would endure in the environment for decades.

Animal studies have shown that flame-retardants affect thyroid hormone functions and can impair the developing central nervous system and brain. In 1999, Swedish researchers discovered much greater amounts in human breast milk than had been detected twenty-five years earlier. Subsequent studies have found an even sharper rise in U.S. women, leading some researchers to conclude that flame retardants levels in North Americans are 10 to 20 times higher than in Europeans and are doubling at a rate of every four to six years. This has raised concern among many scientists and environmental health advocates.

Flame retardants are being found in the cord blood of infants when they are born, showing that these chemicals cross the placenta and get into the fetus. Infants are also exposed to flame-retardants through breast milk. Children take in flame-retardants from many sources and these will persist in their bodies through adulthood.

Researchers say the effects on children are likely to be subtle - not mental retardation or disability, but measurable changes in children's intelligence, memory hyperactivity and hearing. "We're concerned about learning and memory and some behavioral effects and hearing loss," Birnbaum said.

Dr. Linda Birnbaum, the EPA's director of toxicology, said, "**there is no question that the chemicals are altering thyroid hormones.** Altering thyroid hormones during fetal development can affect how the brain functions."

What disturbs scientists the most are that some flame-retardants have striking similarities to PCB's which were widely used as insulating fluids in electrical transformers until they were banned in the 1970's because they were collecting in the tissues of people and wildlife.

This must change – and our smallest children must be protected.

Nancy Alderman, President
Environment and Human Health, Inc.
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