

**Committee:** Health and Government Operations

**Date:** February 20, 2008

**Testimony on:** HB 56, Public Health - Phthalates and Bisphenol-A - Prohibitions –in Toys and Child Care Articles

**Submitted by:** Marian Condon RN, MS

**Position:** Favorable

Mr. Chairman and Members of the Committee:

I first became aware of the hazard posed by phthalates while attending the University of Maryland School of Nursing to earn a Masters degree in Community and Public Health Nursing. I did some work with Health Care Without Harm and at the time I became concerned over the use of DEHP, a phthalate, in medical devices. Later, when I worked at the American Nurses Association as Senior Staff Specialist in Environmental and Occupational Health, I wrote and spoke against this use of phthalates in medical devices.

I now am a nurse consultant for Health Care Without Harm, since my initial interest in this issue several years ago I have seen the knowledge base about phthalate toxicity grow and my initial concern has changed to alarm.

We know that besides medical equipment, phthalates are also used in many consumer products such as automobile parts, tools, toys, food packaging, paints, glues, perfumes, personal-care products, lubricants, and wood finishes. Because of this we know that we are continually exposed to phthalates in our environment. Studies done by the Centers for Disease Control and Prevention have identified the presence of phthalates in the body fluids of Americans.

We know that phthalates and Bisphenol A are endocrine disruptors, that is they are a member of a group of chemicals that when absorbed into the body can mimic or block hormones and disrupt the body's normal function. Because of this property several phthalates, including DEHP, reduce testosterone synthesis. We also know that in lab animals phthalates have been shown to have health outcomes, among these are certain “demasculinized” effects in males, including cryptorchidism (undescended testes), hypospadias (misplacement of the urethra to the underside of the penis), low sperm counts, and reduced fertility, this is related to the endocrine disrupting characteristic of phthalates. These animal studies are important because they indicate that there is **biological plausibility** that phthalates are hazardous to organisms, including humans.

We know that human epidemiological studies have added to this biological plausibility that environmental phthalates are affecting our health. One recent study found a positive association between altered genital measurements in infant boys and their prenatal exposure to phthalates as measured in their mothers' urine. Other studies have found decreased semen quality associated with phthalate exposure in grown men.

We also know that a disturbing global phenomenon has been noted, there is an apparent decline in human male reproductive health worldwide. Researchers have noted an increase in testicular cancer, hypospadias, and cryptorchidism, and a decrease in sperm concentrations and quality in some areas. It has been proposed that these symptoms are part of a syndrome caused by prenatal exposure to endocrine disrupting environmental chemicals.

Whether this phenomenon is due to endocrine disruptors, including phthalates, is not confirmed, and this is where we start to get into what we don't know. We also don't know what **dose** of any endocrine disruptor would cause health effects, or if there is any such thing as a "safe" dose. We do not know the effects of exposures to **multiple chemicals** found in the environment, including phthalates, other environmental endocrine disruptors and other environmental chemicals in general.

Because there is scientifically established biological plausibility that phthalates in the environment affect our health, and we know that almost all Marylanders are exposed, I as a concerned citizen, and public health nurse, feel it is imperative that we develop the most protective policy possible to protect vulnerable populations. I encourage the members of the committee to offer a favorable report on HB 56.

Respectfully submitted,

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