

**Association of Reproductive Health Professionals (ARHP)**  
**Statement in Support of Warnings Regarding Bisphenol A's Possible Adverse Effects on**  
**Human Reproductive Health and Carcinogenicity**

Submitted in Response to:

National Toxicology Program (NTP); Center for the Evaluation of Risks to Human Reproduction (CERHR); Announcement of the Availability of the Bisphenol A Expert Panel Report; Request for Public Comment

January 25<sup>th</sup>, 2008 (testimony below originally from August 6, 2007 - NTP's second meeting on BPA)

Good morning. My name is Dr. Beth Jordan. I am an internist, formerly of the Mayo Clinic, and I currently serve as the medical director of the Association of Reproductive Health Professionals (ARHP). ARHP positions itself as the leading source of trusted medical education and information on reproductive and sexual health. ARHP was founded in 1963 and is a multidisciplinary professional association with over 11,000 members, including physicians, nurse practitioners, physician assistants, nurse midwives, pharmacists, researchers, and educators, all with expertise in reproductive health research or practice. ARHP and its members provide reproductive health services or education, or conduct reproductive health research. ARHP fosters research and advocacy to improve reproductive health.

ARHP is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education to health care providers through a variety of educational programs, meetings, and publications. ARHP advocates for evidence-based research and supports the availability of, and education about, a wide range of safe, effective, and appropriate new technologies to enhance the health of all women.

**WHY WE CARE and ARE AT THE TABLE**

On behalf of ARHP and its members, it is my pleasure to provide comments before the National Toxicology Program's Center for the Evaluation of Risks to Human Reproduction in support of warnings about the possible harmful effects of exposure to BPA. While upon initial glance ARHP may seem like an unusual speaker at this meeting, ARHP is offering comments today because we value evidence-based science and serve as the translating interface between cutting edge science and reproductive aged consumers. We are responsible for educating healthcare providers with expert information so that they can provide excellent health care to their clients, safeguarding not only their health, but the health of their current or future families.

History and science make clear that substances once considered safe have later been shown to cause harm to pregnant women and their future children—thalidomide, alcohol and tobacco, mercury, DES, for example. Research informs us that a critical window of exposure may have much to do with what effect a harmful agent may later play on in the woman's health or that of her child's.

As a reproductive health issue, it's crucial for health care providers to learn more about potential risks that may adversely affect their patient's reproductive health and pregnancy outcomes. It's important for women and families to have state-of-the-art recommendations so they can plan their pregnancies appropriately and assume the healthiest lifestyle during the first weeks of embryonic life—before they even know they are pregnant. As providers of health care that helps improve the quality of life, we offer comprehensive pre-conception counseling as well as warnings to pregnant women about the importance of limiting their exposure to alcohol, tobacco, mercury, lead, PCBs among other known harmful agents.

## WHAT WE KNOW

While the science is still emerging, what's presently known about BPA is worrisome:

Human exposure to BPA is widespread: it is in the seemingly inconsequential plastics and lining of metal cans that women of reproductive age, babies and children come frequently into contact with—especially in the form of food and beverage storage and heating containers. Water bottles, baby bottles.

Unconjugated BPA levels (those that are thought to be biologically active) are detected in human blood and tissues. These levels seem to be higher than blood levels that would be present in animals exposed to the US-EPA reference dose.

Emerging research indicates that low-levels of BPA that were previously thought not to be harmful may now be associated with negative health outcomes.

Research indicates that BPA may be related to increased trends in humans regarding: abnormal penile/urethral development in males and early maturation in females, increased neurobehavioral disorders such as attention deficit hyperactivity and autism, increase childhood and adult obesity and Type 2 Diabetes Mellitus, regional decreases in sperm count, and increased hormonally-mediated cancers such as prostate and breast cancers.

Informed by increasing research from the environmental sciences and confirmatory research in laboratory animals who are exposed to levels of Bisphenol A that are relevant to human exposures, there is a growing concern about BPA's adverse effects upon humans. There is also a

concern among scientists and advocates that there's a lack of comprehensive testing of commonly encountered projects for wide ranging effects and those thought to be previously insignificant. To make the issue more complex, there is also a concern expressed among valued scientists that all BPA scientific studies are not created equal and that industry and more academic studies are at interesting odds with findings showing harm.

## WHAT WE RECOMMEND

ARHP supports first rate science informing clinical decision making. Unfortunately we do not always have the data we want to make the best recommendations to our patients. But absence of a certain kind of evidence does not necessarily mean evidence of absence of harm. Ethical concerns prevent us from ever being able to conduct randomized double-blinded placebo controlled studies on pregnant women looking at various effects of various levels of exposure to BPA, or other endocrine disruptors like phthalates, Polybrominated Flame Retardants, Dioxin, Pesticides and perfluorinated compounds. Scientific uncertainty will therefore continue to exist. In the face of scientific uncertainty and credible threats of harm, ARHP supports Precautionary Action in the form of governmental recommendations to decrease overall BPA exposure.

I'm going to break from the usual form of hearing commentary to share a story with you which to me highlights this take on the Precautionary Principle and why it should be embraced regarding BPA and other toxic threats.

I was recently at a conference and had the opportunity to listen to government experts in toxicology and endocrine disruptors discuss how these and other agents are causing harm. The data at that time was mostly limited to animal/amphibian models. Curious about rumors or myths regarding the safety of heating plastics and how this might affect reproductive health, I asked the esteemed panelists just that question before the audience of about 500 attendees. Their response came in a common, perfunctory and rather bureaucratic flat reply of "oh, there's really no data to support those concerns." Shortly thereafter, I came up to the podium to moderate the conference's next session. The panelists were still near the podium, and I decided to ask them privately if they themselves in their homes ever microwaved any plastic. They looked at me aghast and said emphatically "No, Never!"

The disconnect between what experts know and the lack of strong governmental warnings is worrisome. This concern fuels the need for recommendations made in the spirit of the Precautionary Principle. The Precautionary Principle –based on science, ethics and values – dictates that "when an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically."(1)

ARHP supports recommendations to decrease our overall exposure to BPA. ARHP also recommends that governmental agencies, in the spirit of the precautionary principle, enact measures that decrease exposure and educate the public about possible harm from BPA. BPA may be an important chemical in the plastics industry, but an appropriate warning to women who are pregnant –or who may become pregnant—to limit their exposure to BPA with a reference to possible household sources of exposure would not be unreasonable.

I would like to thank the panel for the opportunity to present this statement.

#### References

The Collaborative on Health and the Environment website: [www.healthandenvironment.org](http://www.healthandenvironment.org).  
Last accessed August 3,2007