

Reproductive Health and the Environment: Kid-Safe Chemicals Act (KSCA) of 2008

CRITICAL FACTS AT A GLANCE

- About 10% of women report difficulty conceiving and maintaining a pregnancy.¹ Recent data suggests that women under the age of 25 are the fastest growing segment reporting fertility challenges.²
- Breast development and menarche in girls is beginning at an earlier age and early puberty is linked to breast cancer.³
- Estimates suggest that uterine fibroids and endometriosis are harming the health and fertility of between 10 to 50 percent of American women.^{4,5}
- Human studies show that endocrine disrupting chemicals are impacting the ratio of male to female births.⁶
- Malformations of the male reproductive system such as hypospadias (deformities of the penis in infants), cryptorchidism (undescended testicles) and testicular cancer appear to be increasing while sperm count and testosterone levels are declining in certain populations.⁷
- Animal studies show that exposures to chemical contaminants around the time of conception, during pregnancy or during infancy can be particularly detrimental because these are times of marked vulnerability.⁸
- According to the CDC, chemicals of serious concern for reproductive health including, environmental tobacco smoke, lead, mercury, phthalates and bisphenol A, can be found in nearly 100% of the population. Some of the contaminants were measured at levels that cause adverse effects on reproductive health in animal studies.⁹

An emerging body of evidence indicates that environmental toxins are negatively affecting male and female fertility and are contributing to increased numbers of poor birth outcomes. Moreover, these chemicals are implicated in a host of other reproductive health problems such as early puberty, endometriosis, and increased rates of cervical and breast cancer. The effects are especially disturbing in lower-income and minority communities where there is a heightened risk of exposure to hazardous chemicals at work and in the home.

In response to this trend, Representatives Hilda L. Solis (D-CA) and Henry Waxman (D-CA) introduced the Kid-Safe Chemicals Act of 2008 (KSCA) to reduce the exposure of children, workers and consumers to toxic chemical substances found in every day environments.

Background: KSCA is the first major effort to reform of the Toxic Substances Control Act of 1976 (TSCA). Under TSCA, some 62,000 chemicals already on the market were grandfathered in and declared “safe” without sufficient evidence. Since TSCA was enacted in 1976, another 20,000 new chemicals have entered the stream of commerce with little or no data to support their safety. In the 30 years since TSCA was enacted, Environmental Protection Agency (EPA) has reviewed only 200 and banned only 5 chemicals.

Change in the Scientific Paradigm: Our scientific understanding on the impact of environmental contaminants on reproductive health is advancing rapidly, but the relationship between cause and effect is complex, making concrete, specific answers elusive. For instance, exposure may sometimes take a long time to manifest symptoms and it is often difficult to identify or estimate accurately exposures to environmental contaminants that occurred months, years or decades earlier. Unlike the controlled environment of a study, humans are continuously exposed to a complex mixture of chemicals – some we are aware of, others we are not.

Traditionally, scientific research has been guided by the long-held axiom – the dose makes the poison – the higher the dose, the more likely the harmful impacts. In other words, low level exposures were less worrisome. However, a growing body of evidence indicates that both high and low doses can have adverse effects, and the effects are often different.

Given the scientific challenges and paradigm shift that is occurring, we need to develop a regulatory system that reflects these changes and does not have to wait until there is 100% scientific certainty before the government can take action. Moreover, we need to change the incentives and responsibilities so that manufacturers – not the government – have the burden of proving that a chemical is safe.

KSCA would usher in a new regulation paradigm which would:

- **Require Basic Data on Industrial Chemicals:** Chemical companies would have to demonstrate the safety of their products, backed up with credible evidence. Chemicals that lacked the minimum data could not be legally manufactured in or imported into the United States. [Section 505]
- **Place the Burden on Industry to Demonstrate Safety:** EPA would be required to systematically review whether industry had met its burden of proof for all industrial chemicals within 15 years of adoption. [Section 503]
- **Restrict the Use of Dangerous Chemicals Found in Newborn Babies:** Hazardous chemicals detected in human cord blood would be immediately targeted for restrictions on their use. [Section 504]
- **Use New Scientific Evidence to Protect Health:** EPA would be authorized to require additional testing as new science and new testing methods emerge, including for health effects at low doses or during fetal or infant development and for nanomaterials. [Section 503]
- **Establish National Program to Assess Human Exposure:** The Center for Disease Control and Prevention (CDC) would expand its chemical exposure testing (biomonitoring) to children, workers, or other vulnerable populations. [Section 505]
- **Expand the Public Right to Know on Toxic Chemicals:** KSCA would create a new, internet-accessible public database on chemical hazards to inform companies, communities, and consumers.
- **Invest in Long-Term Solutions:** KSCA would provide new funding and incentives for development of safer alternatives and technical assistance in “green chemistry.” [Section 508]

Sources:

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- ³ Steingraber S. 2007. The Falling Age of Puberty in U.S. Girls: What We Know, What We Need To Know. Breast Cancer Fund. Available at: <http://www.breastcancerfund.org/site/pp.asp?c=kwKXLdPaE&b=3266509> . Accessed 2008 Sept 09.
- ⁴ Department of Health and Human Services National Women’s Health Information Center. 2008. Uterine Fibroids. Available at: <http://www.womenshealth.gov/faq/fibroids.htm>. Accessed 2008 Sept 09.
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- ⁶ Grech V et al. 2003. Secular trends in sex ratios at birth in North America and Europe over the second half of the 20th century. Journal of Epidemiology and Community Health 57:612-615.
- ⁷ Skakkebaek N et al. 2001. Testicular dysgenesis syndrome: an increasingly common developmental disorder with environmental aspects. Hum Reprod 16: 972-8.
- ⁸ Woodruff T et al. 2008. Proceedings of the *Summit on Environmental Challenges to Reproductive Health and Fertility*: executive summary. Fert and Ster 89(2): 281-300.
- ⁹ Department of Health and Human Services Centers for Disease Control and Prevention. 2005. Third National Report on Human Exposure to Environmental Chemicals. Available at: http://www.cdc.gov/exposurereport/biomonitoring_results.htm Accessed 2008 Sept 09.