

Exposure to Toxic Environmental Agents ACOG/ASRM Committee Opinion

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October 2, 2013

About ACOG

The American Congress of Obstetricians and Gynecologists (ACOG) is the nation's leading group of physicians providing health care for women. With more than 57,000 members, ACOG strongly advocates for quality health care for women, maintains the highest standards of clinical practice and continuing education of its members, promotes patient education, and increases awareness among its members and the public of the changing issues facing women's health care.

Why Ob-Gyns?

Ob-gyns are primary care providers

- Ob-gyns provide more preventive services for women than any other provider type
- Only physician seen regularly by many women during their reproductive years
- **Uniquely poised to intervene during preconception & pregnancy – critical windows of human development**



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- **Exposure to harmful environmental chemicals is ubiquitous**
- **Everyone, everywhere, everyday**

**43 Chemicals Found in
Virtually Every Pregnant
Woman in the US**

Woodruff T.J., Zota A.R., and Schwartz J.M. Environmental chemicals in pregnant women in the U.S.: NHANES 2003-2004. Environmental Health Perspectives 2011



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Environmental chemicals can cross the placenta



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All exposures are not created equal


Underserved and minority populations disproportionately impacted

More likely to be exposed to higher levels of outdoor and indoor pollutants




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All exposures are not created equal


UCSF
University of California
San Francisco

Work Matters

When you work with or around toxic chemicals,
what you know really matters.



Are you pregnant? Or are you planning to become pregnant?
Are you exposed to chemicals at work?
If so, the information in this booklet can help you.

Women of reproductive age with occupational exposure to toxic chemicals are highly vulnerable to adverse reproductive health outcomes

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Unlike pharmaceuticals, most chemicals enter marketplace without detailed data on reproductive toxicities

We don't know:

- Where most harmful chemicals are used
- How we are exposed to them
- What the health risks from exposure might be



Ob-Gyns & Prevention



Food Matters: What to Eat?

Your health depends on the food you eat.

The health of communities and the environment we depend on for life are also impacted by how food is grown and how it gets to your dinner plate.

This brochure provides tips for making food choices to protect your health and the health of your family and community.

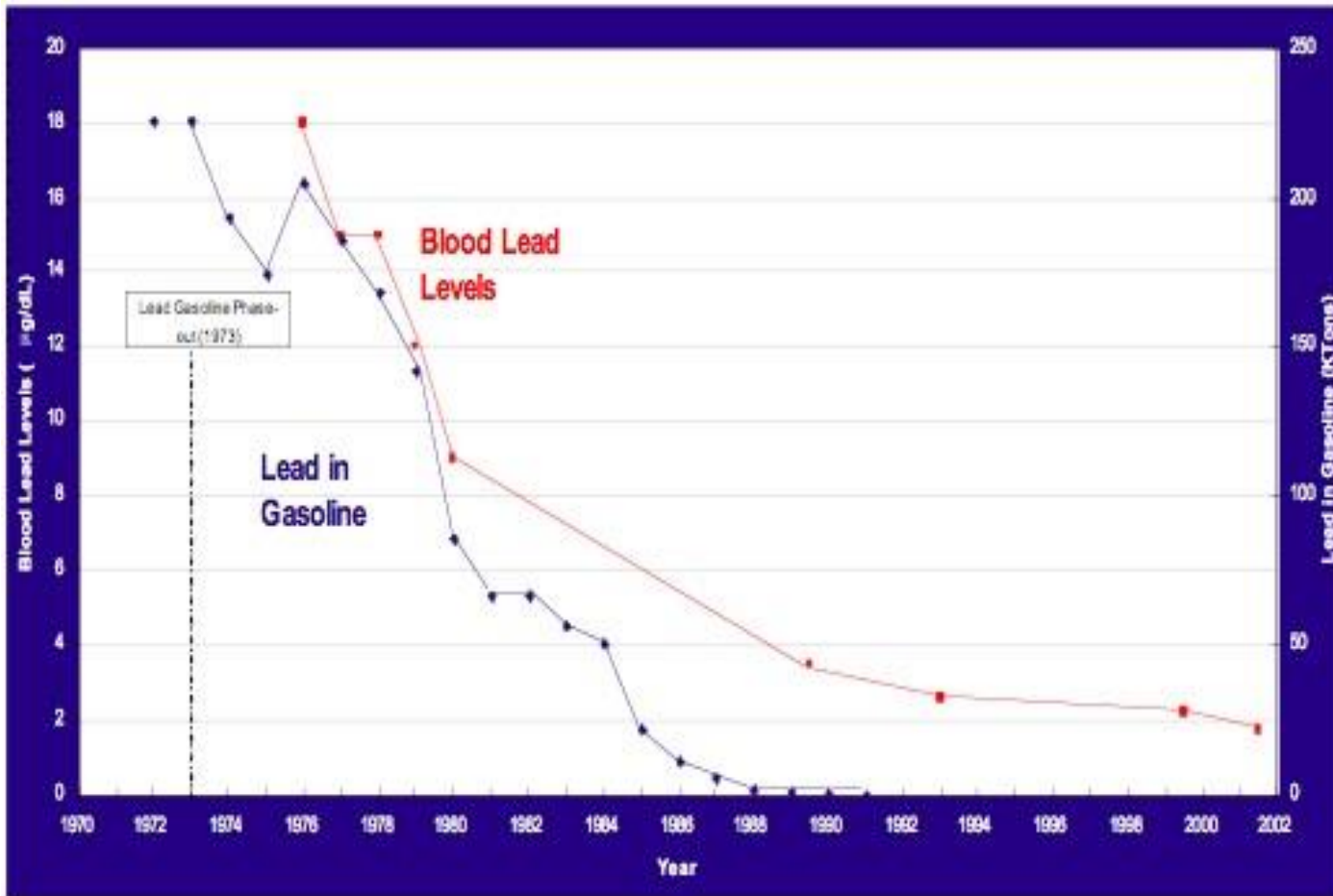
The brochure also provides many more resources to learn more about how the food we eat impacts our health. For more information, visit: <http://www.prhe.ucsf.edu/prhe/foodmatters.html>

There are many ways to make a difference. Here are some suggestions to get started.

Ob-gyns don't need to be experts in environmental health to provide useful information to patients. However, they should:

- Be familiar with their geographic area
- Take an exposure history early
- Provide information about how the food system affects health
- Communicate the science and areas of uncertainties about environmental exposures

Many Toxic Exposures Cannot Be Controlled by Individual Action



Individual Action Alone is Not Enough

MEET MOLLY GRAY.

Eats organic. Avoids BPA. Buys natural cleaners.
Loaded with toxic chemicals.



- Nine pregnant women tested from Washington, Oregon, and California, during the second trimester had detectable:
 - Bisphenol A
 - Mercury
 - At least four phthalates
 - At least two and up to 4 perfluorinated chemicals

When environmental chemicals act like uncontrolled medicine

Linda S. Birnbaum

National Institute of Environmental Health Sciences and National Toxicology Program, Research Triangle Park, NC 27709, USA

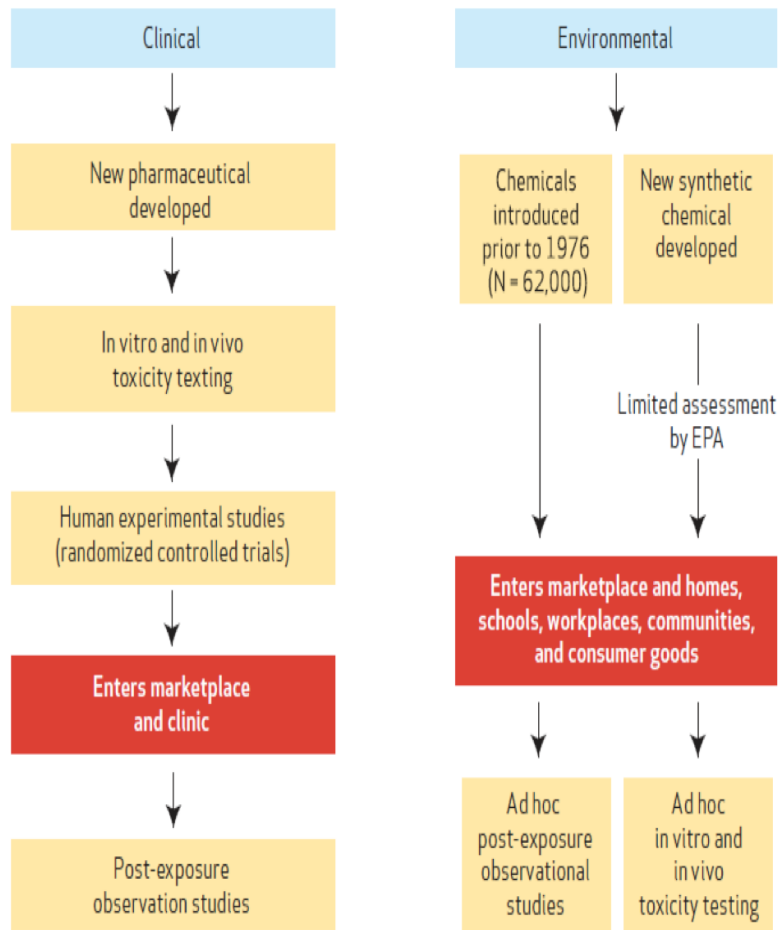
In the same way as medicines are delivered to produce effects in the endocrine system, environmental chemicals can be similarly delivered to produce unwanted endocrine effects, resulting in a staggering increase in several diseases. These effects on endocrine and other physiological systems can have significant population-level impacts and thus require public health approaches to disease control.

breast cancer risk, and women who were exposed to DDT before the age of 4 years exhibited the highest risk [7]. Elevated concentrations during adolescence of serum polybrominated diphenyl ethers (PBDE), a common flame retardant, are associated with a younger age of menarche, which in turn might contribute to increased risk of breast cancer [8].

Birnbaum LS. When environmental chemicals act like uncontrolled medicine. Trends Endocrinol Metab. 2013 Jul;24(7):321-3. doi: 10.1016/j.tem.2012.12.005. Epub 2013 May 7. PubMed PMID: 23660158.

Policy Gaps

Streams Of Evidence For Chemical Toxicity Assessment In Clinical And Environmental Health Sciences



Currently

Pharmaceuticals must show efficacy and safety *prior to exposing humans*

BUT

Manufactured chemicals currently need to show evidence of harm *prior to removing human exposure*

Recommendations

Congress should **enact truly meaningful preventative and protective chemical safety legislation** that will:

1. Identify and reduce exposure to toxic environmental chemicals while addressing consequences of such exposures
2. Require EPA and other federal agencies to take all necessary actions when reviewing substances to guarantee health and safety
3. Fund rigorous scientific investigation into the causes and prevention of birth defects



Voters Support Chemical Safety Legislation

- Nearly two thirds of voters are concerned about chemicals in consumer products
- Almost 90% of voters support legislation that ensures products are safe for human use
- Support spans demographic and partisan lines

Global Strategy Group Memorandum: Sept 3 2013. Public Opinion on Chemical Reform

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Conclusion

“Because individuals alone can do little about exposure to harmful environmental toxic agents, the authoritative voice of health care professionals in policy arenas is critical to translating emerging scientific findings into prevention-oriented action on a large scale.”