International Federation of Gynecology and Obstetrics
WORKING GROUP ON REPRODUCTIVE AND DEVELOPMENTAL ENVIRONMENTAL HEALTH
Health Practitioners Warning on the Impacts of Chemical Contamination on Human Health
Recommendations for Preventing Exposure to Toxic Chemicals

Advocate for policies to prevent exposure to toxic environmental chemicals

Work to ensure a healthy food system for all

Make environmental health part of health care

Champion environmental justice
Where do we begin....

Lead in Lipstick
Reproductive Health and the Environment

What is “The Environment”?
High Lead Levels In Michigan Kids After City Switches Water Source

Michigan AG: Flint water not even safe to 'bathe a newborn'
“ENVIRONMENT” Includes:

- Industrial chemicals
- Agricultural chemicals
- Physical agents (heat, radiation)
- By-products of combustion and industrial processes (dioxin)
- Foods and nutrients
- Prescription drugs
- Lifestyle choices and substance abuse
- Social and economic factors
Why Do We Not Address Environmental Issues?

Medical Providers do not discuss Environmental Impacts on Health because

A. The research is lacking
B. We are not comfortable with the topic
C. There are no data to support the topic historically
D. We have more important topics to discuss
E. We follow the ostrich approach: we hide our heads unless we can give a full and complete answer, OR solve a problem
F. We really are unaware that there is a problem
G. We DO! We just have not appreciated it (Blood sugar or hypertension)
How do we get the attention of all clinicians?
We need to *translate* the science
Should We Be Concerned?

- **Testicular Cancer**: Increase over time, with fluctuations.
- **Breast Cancer**: Steady increase over time, with some variability.
- **Hypospadias**: Rising trend, especially in recent years.
- **Sperm Count**: Decline over time, with separate trends for North America and Europe.
Gene-Environment and Disease

• Why have some diseases increased in incidence over the past 40 years?
• Genes have not changed over that time
• Recent “epidemics” of diabetes, asthma, ADHD, obesity due to environmental, dietary and behavioral changes
• We will never understand the etiology of diseases without an understanding of the role of “environment”
Chemicals in the International environment

- There are 70-100,000 chemicals in global commerce
- Production is increasing about 3.4% annually
- 4800 chemicals are “high volume” or exceed 1 million pounds of use a year
- By 2020, LOW INCOME countries will lead the world in high volume production

The “Alphabet Soup” of Synthetic Chemicals

- Polychlorinated Biphenyls (PCB)
- Polybrominated Biphenyls (PBB)
- Dioxin
- BPA
- PFOA
- Phthalate
- Pesticides (DDT)
- Pharmaceutical (DES)
- Soy (baby formula)
Endocrine disruptors are chemicals that may interfere with the body’s endocrine system and produce adverse developmental, reproductive, neurological, and immune effects in both humans and wildlife.

NIEHS. http://www.niehs.nih.gov/health/topics/agents/endocrine/
Environmental Exposures

• Every pregnant woman in the U.S. has at least 43 toxic exogenous chemicals in her body
• Virtually all pregnant women have measured levels of lead, mercury, toluene, perchlorate, bisphenol A (BPA)
• Studies have documented that each of these chemicals can be harmful to human reproduction and/or development

Navigating the Science

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

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

ACOG/ASRM Committee
Opinion

All exposures are not created equal

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

Ob-Gyns & Prevention

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

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.
Individual Action Alone is Not Enough

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
COMMITTEE OPINION

Number 575, October 2013

The American College of Obstetricians and Gynecologists Committee on Health Care for Underserved Women
American Society for Reproductive Medicine Practice Committee
The University of California, San Francisco Program on Reproductive Health and the Environment

This Committee Opinion was developed by the American College of Obstetricians and Gynecologists Committee on Health Care for Underserved Women and the American Society for Reproductive Medicine Practice Committee with the assistance of the University of California, San Francisco (UCSF) Program on Reproductive Health and the Environment. The Program on Reproductive Health and the Environment endorses this document. This document reflects emerging clinical and scientific advances as of the date issued and is subject to change. This information should not be construed as dictating an exclusive course of treatment or procedure to be followed.

Exposure to Toxic Environmental Agents

ABSTRACT: Reducing exposure to toxic environmental agents is a critical area of intervention for obstetricians, gynecologists, and other reproductive health care professionals. Patient exposure to toxic environmental chemicals and other stressors is ubiquitous, and preconception and prenatal exposure to toxic environmental agents can have a profound and lasting effect on
Chemical Exposures During Pregnancy: Dealing with Potential, but Unproven, Risks to Child Health
SPECIAL COMMUNICATION

International Federation of Gynecology and Obstetrics opinion on reproductive health impacts of exposure to toxic environmental chemicals

Gian Carlo Di Renzo a, Jeanne A. Conry b, Jennifer Blake c, Mark S. DeFrancesco b, Nathaniel DeNicola b, James N. Martin Jr. b, Kelly A. McCue b, David Richmond d, Abid Shah d, Patrice Sutton e, Tracey J. Woodruff e, Sheryl Ziemin van der Poel f, Linda C. Giudice g

a International Federation of Gynecology and Obstetrics, London, UK
b American College of Obstetricians and Gynecologists, Washington, DC, USA
c Society of Obstetricians and Gynaecologists of Canada, Ottawa, ON, Canada
d Royal College of Obstetricians and Gynaecologists, London, UK
e Program on Reproductive Health and the Environment, University of California, San Francisco, San Francisco, CA, USA
f World Health Organization, Geneva, Switzerland
g American Society for Reproductive Medicine, Birmingham, AL, USA

ARTICLE INFO

Keywords:
Developmental health
Environmental chemicals
Reproductive environmental health
Toxic chemicals
Women’s health

ABSTRACT

Exposure to toxic environmental chemicals during pregnancy and breastfeeding is ubiquitous and is a threat to healthy human reproduction. There are tens of thousands of chemicals in global commerce, and even small exposures to toxic chemicals during pregnancy can trigger adverse health consequences. Exposure to toxic environmental chemicals and related health outcomes are inequitably distributed within and between countries; universally, the consequences of exposure are disproportionately borne by people with low incomes. Discrimination, other social factors, economic factors, and occupation impact risk of exposure and harm. Documented links between prenatal exposure to environmental chemicals and adverse health outcomes span the life course and include impacts on fertility and pregnancy, neurodevelopment, and cancer. The global health and economic burden related to toxic environmental chemicals is in excess of millions of deaths and billions of dollars every year. On the basis of accumulating robust evidence of exposures and adverse health impacts related to toxic environmental chemicals, the International Federation of Gynecology and Obstetrics (FIGO) joins other leading reproductive health professional societies in calling for timely action to prevent harm. FIGO recommends that reproductive and other health professionals advocate for policies to prevent exposure to toxic environmental chemicals, work to ensure a healthy food system for all, make environmental health part of health care, and champion environmental justice.

© 2015 Published by Elsevier Ireland Ltd. on behalf of International Federation of Gynecology and Obstetrics.
Even small exposures to chemicals in pregnancy and breastfeeding can trigger health consequences
Recommendation 1: Advocate for policies to prevent exposure to toxic environmental chemicals

Recommendation 2: Work to ensure a healthy food system for all

Recommendation 3: Make environmental health part of health care

Recommendation 4: Champion environmental justice
• ADVOCACY
• CAPACITY BUILDING AND TRAINING
• COLLABORATIVE RESEARCH
Disseminate FIGO’s Preliminary Action Plan for Research and Policy and other information to raise awareness

• Build awareness and understanding, and promote actions about environmental chemicals and air pollution as an emerging policy issue

• Advocate for policies to prevent exposure to toxic environmental chemicals for all

• Advocate for research to advance knowledge about reproductive and developmental environmental health, vulnerable populations
Reduce exposures and/or effects, in particular among vulnerable populations, through timely updates to the 2012 WHO/UNEP Report *State of the Science of Endocrine-disrupting Chemicals* with particular attention to the needs of developing countries and countries with economies in transition.

Raise awareness and facilitate science-based information exchange, including translation of research findings into actions globally.
• Make environmental health part of health care globally
• Champion environmental justice globally
• Work with relevant stakeholders and policymakers to support activities to build global capacity, particularly in developing countries and countries with economies in transition
The Future

We have three GLOBAL work groups of professionals and leaders in women’s health, ready to improve our understanding, awareness and involvement.

*We must now pursue funding in order to achieve our three year goal!*
EVERY WOMAN
EVERY TIME...
EVERY WHERE