College of Public Health



Michael Bloom, PhD

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Education

PhD, Epidemiology and Community Health, University at Buffalo, The State University of New York

Key Interests

Environmental Epidemiology | Reproductive Epidemiology | Endocrine Disruptors | Fetal Development | Reproduction | Health Disparities | Global Environmental Health

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SELECT PUBLICATIONS

- Bloom, M. S. et al. (2019). Association between gestational phthalate exposure and newborn head circumference; Impacts by race and sex. Environmental Research, 195, 110763.
- Begum, T. F. et al. (2021). A pilot investigation of couple-level phthalates exposure and in vitro fertilization (IVF) outcomes. Reproductive Toxicology, 99, 56-64.
- Butts, C. D. et al. (2020). Seafood consumption is associated with higher follicular fluid arsenic (As) and mercury (Hg) concentrations in women undergoing in vitro fertilization (IVF). Environmental Research, 188, 109753.

Research Focus

I am interested in the impact of endocrine-disrupting chemicals on human reproduction and development. Much of my research focuses on measuring environmental pollutants in biological specimens, such as blood and urine, and relating the concentrations to reproduction-related endpoints, including pregnancy, birth weight, preterm birth, and birth defects. For example, my work has evaluated how industrial pollutants like polychlorinated biphenyls, perfluorinated alkyl substances, and heavy metals affect fertility and fetal development, the impact of lipids and micronutrients on in vitro fertilization (IVF), how chemicals commonly found in plastics and personal care products relate to reproductive health disparities, and how air pollutants and greenspace affect chronic health conditions in children and adults. These investigations are of great public health importance because of the widespread nature of the environmental exposures, in the United States and elsewhere, and the vulnerability of mothers, fetuses, and disadvantaged groups.

Current Projects

- Racial Disparities Associated with Maternal Exposure to Environmental Endocrine Disrupting Compounds in a Southeastern U.S. Community: Evaluates gestational exposure to environmental phenols and phthalates and its impact on fetal development in a diverse community
- ECHO Consortium on Perinatal Programming of Neurodevelopment: Investigates the impacts of gestational exposure to environmental pollutants on child development
- Exposome Contributors to Child Health Originating from National Fetal Growth Study (ECHO-FGS): Studies the associations of gestational exposure to persistent organic pollutants and children's health