Dr. Jennifer Lowry, MD

Biography

Jennifer A. Lowry is a Professor of Pediatrics at the University of Missouri-Kansas City School of Medicine. She is Director of the Division of Clinical Pharmacology, Toxicology and Therapeutic Innovations at Children's Mercy in Kansas City, where she also serves as Director of Pediatric Environmental Health Specialty Unit. Dr. Lowry completed her fellowship in pediatric pharmacology and medical toxicology as well as her residency in pediatrics at Children's Mercy Hospitals and Clinics in Kansas City. She obtained her medical degree from the University of South Dakota School of Medicine in Vermillion. Her areas of interest include developmental pediatric pharmacology and toxicology, environmental toxicology, adolescent substance use, spider envenomations and adverse drug reactions.

Readings and Resources

Selected news articles:

- EPA Chief's Refusal To Ban Brain-Damaging Pesticide Shows Profit Trumps Public Safety

  D'Angelo, C. (March 31, 2017). EPA Chief's Refusal To Ban Brain-Damaging Pesticide Shows Profit Trumps Public Safety. Huffpost.
  Dr. Jennifer Lowry shares concerns after refusal to ban brain-damaging pesticide

- Use Science to Keep Kids Healthy

  Lowry, J. (April 16, 2017). U.S. News and World Report.
  Opinion piece by Dr. Lowry: Washington's aversion to science-based policy is costing children their health.

Selected articles:

- Iodine Deficiency, Pollutant Chemicals, and the Thyroid: New Information on an Old Problem

  Rogan, W. J., Paulson, J. A., Baum, C., Brock-Utne, A. C., Brumberg, H. L., Campbell, C. C., ... & Spanier, A. (2014). Iodine deficiency, pollutant chemicals, and the thyroid: new information on an old problem. Pediatrics, 133(6), 1163-1166.

  Many women of reproductive age in the United States are marginally iodine deficient, perhaps because the salt in processed foods is not iodized. Iodine deficiency, per se, can interfere with normal brain development in their offspring; in addition, it increases vulnerability to the effects of certain environmental pollutants, such as nitrate, thiocyanate, and perchlorate. Although pregnant and lactating women should take a supplement containing adequate iodide, only about 15% do so. Such supplements, however, may not contain enough iodide and may not be labeled accurately. The American Thyroid Association recommends that pregnant and lactating women take a supplement with adequate iodide. The American Academy of Pediatrics recommends that pregnant and lactating women also avoid exposure to excess nitrate, which would usually occur

from contaminated well water, and thiocyanate, which is in cigarette smoke. Perchlorate is currently a candidate for regulation as a water pollutant. The Environmental Protection Agency should proceed with appropriate regulation, and the Food and Drug Administration should address the mislabeling of the iodine content of prenatal/lactation supplements.

- Prevention of Childhood Lead Toxicity

  Campbell, C., & Osterhoudt, K. C. (2000). Prevention of childhood lead poisoning. Current opinion in pediatrics, 12(5), 428-437.

  Blood lead concentrations have decreased dramatically in US children over the past 4 decades, but too many children still live in housing with deteriorated lead-based paint and are at risk for lead exposure with resulting lead-associated cognitive impairment and behavioral problems. Evidence continues to accrue that commonly encountered blood lead concentrations, even those below 5 mu g/dL (50 ppb), impair cognition; there is no identified threshold or safe level of lead in blood. From 2007 to 2010, approximately 2.6% of preschool children in the United States had a blood lead concentration >= 5 mu g/dL (>= 50 ppb), which represents about 535 000 US children 1 to 5 years of age. Evidence-based guidance is available for managing increased lead exposure in children, and reducing sources of lead in the environment, including lead in housing, soil, water, and consumer products, has been shown to be cost-beneficial. Primary prevention should be the focus of policy on childhood lead toxicity.