Today’s piece was prepared by Kate Arbon, MD, based on an NBC News.com article FDA: Limit Arsenic Levels in Baby Rice Cereal http://www.nbcnews.com/health/kids-health/fda-wants-arsenic-limits-baby-rice-cereal-n549361

The article discusses brain development, pregnancy and the lack of US regulation surrounding inorganic arsenic levels in infant rice cereal, but without providing details on the specific learning difficulties that may develop or how arsenic affects pregnancy, and with no mention of a safe consumption level.

The article details why regulating inorganic arsenic in foods is necessary, and shares FDA and AAP Council on Environmental Health positions regarding avoiding excess inorganic arsenic, with recommendations that parents continue to feed their baby iron fortified cereal, but balance with oat, barley and multi-grain rice cereal, and to cook rice in excess water and to drain after cooking to reduce the inorganic arsenic content by half. For pregnant women, they recommend eating a balanced diet.

Overall, the NBC news article is reliable. It is also important to note that the proposed FDA regulations of limiting inorganic arsenic in infant race cereal in the US to 100 ppb, is a significantly lower level than the district in Bangladesh used to study high arsenic levels, most likely making the FDA’s proposal a reasonable and safe level.

Most prenatal arsenic exposure has been done in mice and in vitro, with the latest mouse study finding prelimbic cortex changes and decrease in neuron length, which led them to conclude that because the prelimbic cortex is involved in cognition, that exposure to arsenic leads can lead to “behavioral inflexibility” (Aung et al, 2016).

A recent ongoing child study in 2 Bangladesh districts with arsenic drinking water levels of 238 ppb demonstrates that high arsenic levels is associated with lower Bayley-III cognitive scores (Rodrigues et al. 2016).

**RESOURCES FOR PARENTS ON ENVIRONMENTAL HEALTH:**

Dr. Zinner’s website on Resources > Environmental Health <https://depts.washington.edu/dbpeds/Resources>

**ARTICLES CITED:**

* Shibata T. et al. Risk Assessment of Arsenic in Rice Cereal and Other Dietary Sources for Infants and Toddlers in the U.S. 2016. International Journal of Environmental Research and Public Health. 13, 361.
* Aung KH, et al. Prenatal Exposure to Arsenic Impairs Behavioral Flexibility and Cortical Structure in Mice. 2016. Front Neuroscience. 10,137. PMID 27064386.
* Rodrigues EG, et al. Neurodevelopmental outcomes among 2-to3-year old children in Bangladesh with elevated blood lead exposure to arsenic and manganese in drinking water 2016. Environmental Health 15,44.PMCID: PMC4788832

And that’s today’s Developmental & Behavioral Pediatrics: IN THE NEWS!