

## Scientific Study

**Health Issues & Environment**

**“If individuals and the public are properly educated about chemical toxicants, they will be empowered with the choice to make decisions to protect themselves.”**

*What you don't know has power over you;  
Knowing it brings it under your control, and makes it subject to your choice.  
Ignorance makes real choice impossible.*

*- Abraham Maslow*

“If individuals and the public are properly educated about chemical toxicants, they will be empowered with the choice to make decisions to protect themselves and their offspring; without knowledge, the choice is precluded,” says Stephen J. Genuis, a researcher in the Department of Obstetrics and Gynecology at the University of Alberta, Canada.

Genuis says recent research demonstrates a definitive link between chemical toxicants and potential health problems, including congenital defects and gynecological disorders. Nevertheless, Genuis stated, “There has been limited exploration of the relationship between contemporary chemical exposure and reproductive medical issues in mainstream obstetrics and gynecology literature. Credible scientific study is emerging, however, which raises disquieting evidence about the potential for environmental toxicants to profoundly affect the health and well-being of individuals at all stages of life.”

In his peer reviewed article, *Health issues and the environment—an emerging paradigm for providers of obstetrical and gynecological health care*, Genuis survey’s research exploring the impact of adverse exposure on reproductive health. He then makes various points that are essential for us to consider in the pursuit of new legislation and better medical care here in America. Key points covered by Genuis include:

• Over the last half-century, more than 75,000 new synthetic chemicals have been introduced.

• An ‘innocent until proven guilty’ approach remains in effect for chemical agents; proof of safety is generally not required before products go to market.

• Adverse chemical agents may be inhaled in many homes, schools, and workplaces. Various personal care products inflict dermal exposure to chemical toxicants.

• Although small exposures may seem insignificant, many chemicals bioaccumulate (collect into larger amounts) within the human body.

• Exposure to some toxic chemical appears to have an impact at seemingly minuscule levels, very much like the reactions reported by individuals with multiple chemical sensitivity (MCS).

• Xenobiotics (foreign chemicals) can alter communication between cells and disrupt cellular and tissue regulation, often disrupting hormones.



**“We all need to become more involved in approaching our legislators to regulate toxic chemicals.”**

- Individuals have differing genetic vulnerabilities and may exhibit differing responses to the same exposure
- Doses of environmental chemicals asserted to be ‘safe’ are based on many assumptions and are typically derived from animal experiments. It is not ethical to intentionally expose a human to a potentially toxic substance in clinical trials, therefore the actual impact of chemicals on humans has not been evaluated and no claims to safety are warranted.
- “Vociferous claims that insufficient proof exists to establish a link between common chemical exposure and harm as well as protestations by some industry that the benefits and expediency of chemical use outweigh the risks have contributed to confusion regarding chemical toxicity.” Vested interests frequently have input into determining threshold levels for toxicants.

Symptoms of toxic chemical exposure may range from trembling, seizures, respiratory problems, headaches, and other neurological ailments to behavioral problems and psychiatric illnesses. The phrase “mad as a hatter” was coined after workers occupationally exposed to mercury exhibited symptoms of mercury poisoning, including trembling and various psychiatric anomalies later termed “Mad Hatter Syndrome”.

Detoxification is utilized by many alternative practitioners as a method of reducing body

burden of chemicals and therefore improving health. Chemicals are broken down by the liver, and excreted in stool, urine, perspiration, and breath. Genuis cites that preliminary data suggests clinical improvement after detoxification. However, mainstream medicine has been slow to accept detoxification as a means to health and healing as the profession has repeatedly missed the correlation xenobiotics have to health ailments. Despite this, detoxification is something that can be employed without medical supervision, though medical supervision is advised. Many environmental medicine medical doctors employ various methods of detoxification, including sauna, hot baths, colonics, organic diet, fasting, juicing, and other gentle ways of encouraging the body to mobilize and release stored toxicants.

Ultimately, political involvement is needed to legislate tighter regulations and ensure that chemicals are adequately tested before being sold or used in consumer products. Legislation like the Kid Safe Chemical Act, recently proposed by Senator Lautenberg, is just the beginning. We all need to become more involved in approaching our legislators to regulate toxic chemicals. For a sample letter to your legislators, see “Inside MCSA America: Activist’s Corner” in the July issue of MCSA News or contact [admin@mcs-america.org](mailto:admin@mcs-america.org).

#### Reference

Genius, SJ. Health issues and the environment—an emerging paradigm for providers of obstetrical and gynecological health care. *Human Reproduction*. 2006. 21 (9);2201–2208

