

Key Points on Biomonitoring

- Scientists long have understood that our bodies can absorb substances present in our environments, and technology now allows researchers to measure even extremely minute concentrations of substances found in human blood, urine, tissues and milk. This field of research is known as biomonitoring.
- Most environmental substances are naturally occurring, such as those formed in the air, soil, lakes, rivers, oceans, plants, animals, forest fires and volcanoes, and they are absorbed into our bodies through eating, drinking, breathing and skin contact.
- A small fraction of the substances our bodies absorb, however, are derived from the products and processes of modern life.
- Biomonitoring data can be very useful in understanding the extent to which people have been exposed to particular substances and provide guidance for additional research. However, the data must be taken in context, as they do *not* provide information about (1) the source(s) of an exposure, (2) how long a substance has been in the body or (3) what effect, if any, a substance may have on human health. Without this context, unnecessary fears can arise.
- That is why the Centers for Disease Control and Prevention (CDC) has worked to assure the public that: “Just because people have an environmental chemical in their blood or urine does not mean that the chemical causes disease¹.” In fact, many chemicals, such as those in medicines and purifiers, actually do just the opposite.
- Also reassuring is the fact that biomonitoring data also demonstrate that pollution controls have reduced exposure to many potentially harmful substances, including lead and mercury, and current levels of most environmental chemicals detected in the U.S. population are generally thought to be well below those levels associated with adverse effects².
- Biomonitoring is an important to help scientists better understand human exposure to both naturally occurring substances and those made from modern chemistry. As biomonitoring technology continues to advance, more information is being made available to help public health officials, scientists, medical professionals and policy makers enhance public health.
- Working with government officials and the scientific community, the manufacturers of chemical products are actively engaged in efforts to better understand the complex relationship between modern chemistry and human health in a shared effort to protect and improve people’s lives.

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¹ Centers for Disease Control and Prevention. Second National Report on Human Exposure to Environmental Chemicals. CDC; 2003. p.2.

² American Council on Science and Health. *Traces of Environmental Chemicals in the Human Body: Are They a Risk to Health*. New York, NY: ACSH; 2003. p.5-6.