

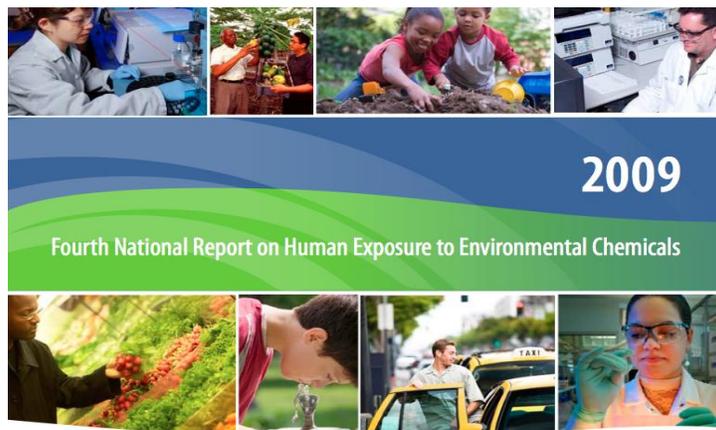
# Biomonitoring: Measuring Chemicals in People

Since 1999 new testing technologies have added a whole new body of evidence to what we know about chemicals.

**Americans are contaminated with chemicals.** For decades, scientists have measured the levels of polluting chemicals in water, air and soil. At the end of the 1990s, the federal Centers for Disease Control and Prevention (CDC) started measuring chemicals in people. Every few years, the CDC issues an updated report on the biomonitoring of environmental chemicals in a representative cross section of the American people.

Here's some of what the CDC's biomonitoring has found:

- **Everyone's contaminated with industrial chemicals.**
- **BPA contamination is widespread among Americans.** BPA, short for Bisphenol A, is a component of epoxy resins and polycarbonate plastics. Hundreds of animal studies and some human evidence have linked BPA to reproductive problems. CDC scientists have found BPA in more than 90% of the urine samples representative of the U.S. population.
- **Perchlorate, a chemical used to make rocket propellant and other explosives was found in every person studied.**



Executive Summary

Department of Health and Human Services  
Centers for Disease Control and Prevention



**But, changes in policy can reduce the levels of chemicals in people.**

- Since the 1970s, the percentage of children ages 1 to 5 with too much lead in their blood has gone down from 88% to 1.4% as a result of policy changes. Research has demonstrated that there is no acceptable level of lead exposure for children.
- The CDC report also shows that chemical exposure in non-smokers from second hand smoke has dropped more than 70% in 15 years. This is a result of the public smoking bans and public education about the effects of second hand smoke.
- After polybrominated diphenyl ethers (PBDEs), a class of widely used flame retardants, were regulated in Sweden, researchers saw a marked reduction of PBDEs in human breast milk samples, with total PBDE levels falling 30% between 1997 and 2000.

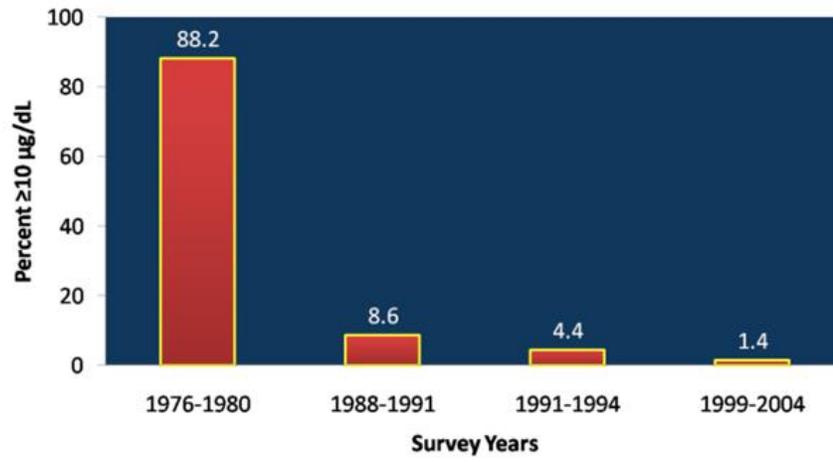


Figure 1. Percentage of children 1–5 years old in the U.S population with elevated blood lead levels ( $\geq 10\mu\text{g/dL}$ ).<sup>1</sup>