What is biomonitoring?

- ATSDR scientists use **biomonitoring** to measure how much of a chemical you have been exposed to.
- Lab tests can measure the amount of a chemical (or its **metabolite**) in body tissues or fluids, such as blood or urine.
- Only specialized labs can run biomonitoring tests.
- Biomonitoring cannot test for all chemicals.

How can chemicals get into my body?

- Chemicals can get into your body from the soil and air, as well as from water, dust, food, and consumer products.
- Your body even produces small amounts of some chemicals.

What do scientists know about how chemicals affect my health?

- Scientists know the effects that **some** chemicals have on your health, but they do not know the health effects of **most** of the tens of thousands of chemicals used today.
- Even when scientists have evidence that a chemical may cause a particular health effect, they **often don't know the amount (or level) that can harm human health**.

Do biomonitoring tests measure all chemicals in my body?

- Some chemicals only stay in your body for a few hours, but some stay for a few days or weeks or even for years.
- Testing may not find a chemical in your body even if you were exposed a few days ago.
- Testing might find a chemical in your body that you haven't been exposed to in 10 or more years.

What questions does biomonitoring not (or rarely) answer?

- Will I have health problems?
- Are my health problems from exposure to the chemical?
• How or where was I exposed?
• When or how often was I exposed?
• How long did the exposure last?
• How much of the chemical was I exposed to?
• What was the source of exposure?

**What other information do scientists gather when they investigate chemical exposure?**

• **Environmental testing information**
  o Scientists may measure the amount of a chemical in indoor and outdoor air, soil, indoor dust, food, or water.
  o Environmental test information may help scientists understand how the chemical gets into people’s bodies, such as in the air they breathe or the food they eat.

• **Personal information**
  Scientists may ask you these questions:
  o What are your activity patterns?
  o Where do you work, live, and play?
  o What is your smoking history?
  o What are your hobbies?
  o Where do you get your drinking water and food?

• **Medical information**
  For example, do you have asthma, kidney disease, or diabetes?

**What else should I know about biomonitoring?**

• Biomonitoring may not be the best way to answer questions about chemical exposures.
• Scientists use different biomonitoring methods depending on the question they are asking.
• Scientists recommend environmental sampling either before or during biomonitoring.
• Sampling strategies can be complicated and take time.

For more information about ATSDR, visit [www.atstdr.cdc.gov](http://www.atstdr.cdc.gov).