

# The Facts on Arsenic

## Why Are We Concerned About Arsenic?

Many people in this country are exposed to low levels of arsenic through food, water and other sources that may increase their risk of diseases like cancer, heart disease and diabetes later in life.

You can't see, smell, or taste arsenic. At very high levels, arsenic is poisonous and causes serious and immediate health effects. In the U.S., levels of arsenic in food and water are usually too low to cause obvious symptoms or make you sick right away.

While everyone is exposed to some arsenic, certain people are exposed to more arsenic on a regular basis. Find out if **you might be exposed to more arsenic**, by going to [www.arsenicandyou.org](http://www.arsenicandyou.org).

### Certain people are more at risk from Arsenic exposure:

- Private well owners
- Pregnant women, babies and children
- People who regularly eat a lot of rice or rice products
- Smokers
- People living in parts of the country with higher levels of arsenic



## Where is the Arsenic?

Arsenic is a naturally occurring metalloid found in **rocks like granite, soil, air, water, plants and animals**. Human activities that have **added arsenic to the environment** include its use in pesticides, animal feed and certain industrial processes like burning coal and mining metals.

## How Does Arsenic Affect Children?



Arsenic is a greater concern for children since they eat about **three times more food per pound of body weight than adults**. For babies and kids, having arsenic in their bodies over time may increase risk of:

- Lower IQ and impaired brain development
- Growth problems
- Breathing problems
- An unhealthy immune system
- Cancer as an adult

## How Can You Reduce Your Family's Arsenic Exposure?

### TEST YOUR WELL

Homeowners with private wells are solely responsible for testing and treating their water. The only way to know if you have arsenic in your water is to **TEST IT**.

### VARY YOUR DIET

Eat a variety of grains, fruits and vegetables based on your family's dietary needs. Rice and rice products can have higher arsenic because rice plants take up arsenic into the grains we eat.

### LEARN MORE

Find out if you might be exposed to arsenic based on your life choices and learn what you can do to reduce your exposure by going to [www.ArsenicandYou.org](http://www.ArsenicandYou.org)

# Reducing exposure with science and policy

## What Are We Learning About Arsenic?

*Our research projects fill in critical knowledge gaps about arsenic and its health effects.*

### How does arsenic get into rice?

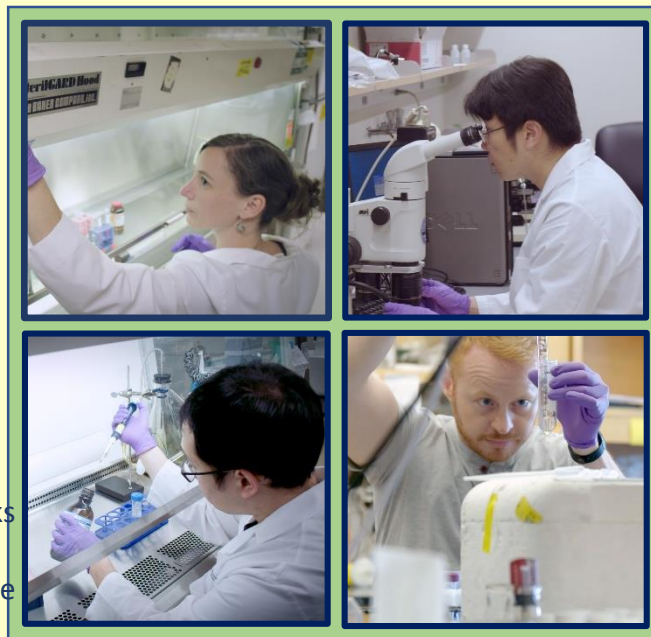
Working on arsenic transport in plants, we want to understand how and where arsenic accumulates in rice grains. We are using a combination of elemental mapping techniques and genetic analysis to search for answers that could lead to arsenic-free rice varieties and agricultural practices.

### How does arsenic affect our immune system?

Arsenic may affect our immune systems, which puts us at higher risk for diseases like respiratory infections. We are studying how low levels of arsenic in food and water could impact the immune system's ability to fight lung infections.

### How does arsenic exposure affect mothers and newborns?

Low levels of arsenic exposure during pregnancy may increase risks for heart disease and diabetes. Working with over 1,700 mother-infant pairs, our New Hampshire Birth Cohort Study represents one of the only investigations of early life exposure to arsenic in the U.S. among a population using private water systems.



## How Do We Keep Our Communities Informed?

*Our research improves public understanding of arsenic to keep our communities healthy.*



The Collaborative on Food with Arsenic and associated Risk and Regulation (C-FARR) papers inform policymakers about the science and risks surrounding arsenic in food. Visit <https://sites.dartmouth.edu/toxmetal> and search for C-FARR.



We work with state and federal partners to inform the public about the risks of arsenic in well water and promote well testing and treatment. Use our well water community action toolkit to determine how you can help private well owners have safe drinking water. Go to <https://sites.dartmouth.edu/toxmetal> and search for the toolkit.



Our website, **Arsenic and You**, provides information for families, caregivers and vulnerable populations about arsenic in water, food and other sources. Each page offers concrete prevention steps to reduce arsenic exposure and has links to helpful resources: [ArsenicandYou.org](http://www.ArsenicandYou.org)

## Where Can I Find More Information?

Visit our website Arsenic and You: [www.ArsenicandYou.org](http://www.ArsenicandYou.org)

Visit our program website: <https://sites.dartmouth.edu/toxmetal>

Contact Laurie Rardin, Research Translation Coordinator: [laurie.r.rardin@dartmouth.edu](mailto:laurie.r.rardin@dartmouth.edu) 603-646-2623