

# wellcare<sup>®</sup> information for you about **Mercury**

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## **What is MERCURY?**

Mercury is a silvery metal found in small amounts in the earth's crust. At room temperature, metallic mercury is an odorless liquid that can slowly evaporate. It is the substance best known in thermometers.

Metallic mercury also is used in pressure gauges, electric switches, florescent lamps and dental fillings. Inorganic mercury compounds, such as mercuric chloride, are used in batteries, paper manufacturing and the chemical industry. Organic mercury compounds once were used to prevent mildew in latex paints.

Inorganic mercury compounds are the most common forms of mercury found in drinking water. While organic mercury compounds are the most harmful forms of mercury, they are rarely found in drinking water. Instead, this form of mercury is found in large fish, such as tuna.

Mercury is carried by wind and rain into the soil and groundwater. Common sources include the release of naturally occurring mercury from rock and soil; burning of coal and oil that contains small amounts of mercury; release of mercury from metal smelters; and incineration of materials that contain mercury, such as batteries.

Household wells also can be contaminated by mercury from improperly disposed of household products, such as outdoor paint. Mercury-based pesticides once used on farmland and orchards also could pose a risk to groundwater supplies.

## **What are the health effects of Mercury?**

Overexposure to mercury can cause serious damage to the brain, nervous system and kidneys. Young children and developing fetuses are at greatest risk from the harmful effects of mercury.

The U.S. Environmental Protection (EPA) sets a maximum limit for exposure to mercury in drinking water of two parts per billion.

For most people, exposure to high levels of mercury in drinking water is very unlikely. Typically, mercury exposure occurs from eating fish with high concentrations of the substance and from dental fillings.

## **How do I test for Mercury?**

Contact your local health department for a list of state-certified laboratories in your area. These agencies also can tell you if mercury has been detected in wells in your community.

## What are the treatments for Mercury in drinking water?

First, immediately switch to bottled water for all drinking and cooking. Boiling water is not recommended, as it can release certain forms of mercury into the air and increase levels of inorganic mercury as the water evaporates.

For inorganic mercury in drinking water, recommended treatment includes distillation and reverse osmosis. For organic mercury, recommended treatment includes filtration by a granulated activated carbon (GAC) system or by a special copper-zinc filter system.

In some instances, you may need to drill a deeper well.

## For more information about Mercury and other drinking water contaminants

The U.S. Environmental Protection Agency's Office of Water,  
*Consumer Factsheet on: Mercury*, [www.epa.gov/safewater/dwh/c-ioc/mercury.html](http://www.epa.gov/safewater/dwh/c-ioc/mercury.html)

New Jersey Department of Health, *Facts: Mercury in Drinking Water*,  
[www.state.nj.us/health/eoh/hhazweb/mercury.pdf](http://www.state.nj.us/health/eoh/hhazweb/mercury.pdf)

Argonne National Laboratory, Environmental Assessment Division,  
*Human Health Fact Sheet: Mercury*, [www.ead.anl.gov/pub/doc/mercury.pdf](http://www.ead.anl.gov/pub/doc/mercury.pdf).

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## For more information on your drinking water

The following sites provide up-to-date information on efforts to protect drinking water supplies and steps you can take as a private well owner.

NSF International	<a href="http://www.nsf.org">www.nsf.org</a>
Water Quality Association	<a href="http://www.wqa.org">www.wqa.org</a>

## For more information about wells and other wellcare® publications

**wellcare®** is a program of the **Water Systems Council (WSC)**. WSC is a national nonprofit organization dedicated to promoting the wider use of wells as modern and affordable safe drinking water systems and to protecting ground water resources nationwide. Well owners and others with questions about wells or well water can now call the new **wellcare®** hotline at **888-395-1033** or visit [www.watersystemscouncil.org](http://www.watersystemscouncil.org)



This publication was developed in part under Assistance Agreement No. X-82849101-4 awarded by the U.S. Environmental Protection Agency. It has not been formally reviewed by EPA. The views expressed in this document are solely those of WSC. EPA does not endorse any products or commercial services mentioned in this publication.