

## DRINKING WATER HEALTH ADVISORY

Garden Heights Water System has high levels of Manganese.



**MAGNOLIA WATER**

Utility Operating Company

A CSWR Managed Utility

### **DO NOT GIVE TAP WATER TO INFANTS UNDER 6 MONTHS OLD OR USE IT TO MAKE INFANT FORMULA**

Our water system is routinely monitored by the Louisiana Department of Health (LDH) for primary and secondary drinking water contaminants. Sample results received on 2/3/2022 showed manganese levels of **0.55 mg/L**. This level is above the Environmental Protection Agency's (EPA's) short-term health advisory (HA) of 0.3 mg/L for infants under 6 months old.

Manganese is a naturally occurring element found in soil, water, and air. It is commonly found in the food we eat, including nuts, legumes, seeds, grains, and green leafy vegetables and in drinking water. Our bodies require small amounts of manganese to stay healthy. Adults and children get enough manganese from the foods we eat. Infants and children get enough manganese from breast-milk, food, or formula.

Drinking water with manganese levels above the lifetime health advisory (0.3 mg/L) are not necessarily harmful to a majority of the population. An individual's nutritional requirements for manganese and potential for harmful health effects may be highly variable. In fact, some adults consume more than 10 mg/day of manganese in their diet without experiencing any harmful health effects.

Too much manganese can increase the risk of health problems, particularly for infants under 6 months old. Infants are more at risk than older children and adults because their brains and bodies are quickly developing. Formula-fed infants get enough manganese from formula to meet their dietary needs. However, they may get too much manganese (above the recommended amount for nutrition) in their bodies when formula is mixed with water that contains manganese. Infants exposed to manganese over 0.3 mg/L may experience learning or behavioral problems. Adult's drinking water with high levels of manganese for many years may experience impacts to their nervous system. EPA established a lifetime health advisory level of 0.3 mg/L which means adverse health effects are not expected below this level.

This health advisory is being provided because EPA identified health risks from short-term exposure.

#### **What should I do?**

**DO NOT GIVE TAP WATER TO INFANTS.** Formula and other food preparations for infants under 6 months old should not be prepared with tap water. Use bottled water or alternative sources of water for infants. Making formula or foods with water containing manganese levels above the health advisory can increase an infant's risk of health problems.

**DO NOT BOIL THE WATER** unless your water system issues a Boil Advisory per LDH requirements. Boiling, freezing, or letting water stand does not reduce manganese. Boiling can increase levels of manganese because manganese remains behind when the water evaporates.

Adults and children of all ages can continue to bathe and shower, brush their teeth, and wash clothes, food, and dishes in tap water.

If you have specific health concerns, you may wish to consult your doctor.

#### **What happened? What is being done?**

Manganese is naturally occurring element found in the groundwater source for the Garden Heights Water System. We are conducting an environmental review to determine how to best remove the manganese from your drinking water.


#### **Where can I get more information?**

See attached *Frequently Asked Questions about Manganese in Drinking Water*.

For more information regarding manganese and drinking water regulations contact the Louisiana Department of Health at (225) 342-7499.

For more information regarding the Garden Heights Water System, call (855) 564-8152.

 [magnoliawateruoc.com](http://magnoliawateruoc.com)

 1-855-643-8152

 [support@magnoliawateruoc.com](mailto:support@magnoliawateruoc.com)

Date distributed: March 14, 2022

## Frequently Asked Questions about Manganese in Drinking Water

People who have decreased ability to excrete manganese, such as those with liver disease, and the elderly are more prone to the negative effects of elevated manganese exposure than the general population.

### **How can I find out if there are elevated levels of manganese in my public drinking water supply?**

Customers that are served by a public water system can contact their local water supplier and ask for information on manganese in their drinking water. Customers are encouraged to request a copy of their Annual Water Quality Report (also known as a Consumer Confidence Report). This report lists the levels of contaminants that have been detected in the water during the prior calendar year and identifies whether the system meets state and EPA drinking water standards. Water quality data (test results) for public water systems (PWSs) in Louisiana can be viewed at the LDH's **Drinking Water Watch** website: [www.ldh.la.gov/drinkingwaterwatch](http://www.ldh.la.gov/drinkingwaterwatch).

The most recent Consumer Confidence Report can be obtained from your drinking water utility, by visiting their website or contacting them for a copy. The base CCRs for PWSs in Louisiana can be found at [www.ldh.la.gov/ccr](http://www.ldh.la.gov/ccr).

Also, if your public water system is collecting occurrence data for UCMR 4 and has submitted results to the EPA, those results may be found in the [National Contaminant Occurrence Database \(NCOD\)](#).

### **I live in a community with elevated manganese levels. Who do I call to get more information about what my water system/supplier is doing to address the elevated levels?**

Contact your local water supplier to find out more about manganese in your drinking water. If you don't know who your local water supplier is, the information should be included in your latest water bill.

### **How does a utility reduce or remove manganese from water?**

Manganese levels in drinking water may be controlled through source water management prior to water treatment and distribution. For example, a groundwater system may pump water from alternate wells or a surface water system may use a multi-level intake to utilize source water with lower background manganese concentrations.

If source water management does not result in a desired reduction in manganese concentration, multiple treatment options are available but are expensive and may require a water rate increase for customers. Prior to selecting a treatment option, monitoring should be conducted to characterize the concentration and form of manganese (e.g., dissolved, particulate, colloidal) in the source water, so that the most viable treatment option is determined. Chemical oxidation followed by precipitate removal, sorption and catalytic oxidation, ion exchange, and lime softening have been shown to be effective at reducing manganese levels in finished water.

### **How does a homeowner remove manganese from water?**

Water softeners and reverse osmosis have been shown to be effective at lowering manganese levels in tap water, depending on the form of manganese in your water (dissolved or particulate) and concentration. Boiling water will not remove manganese but will instead concentrate it.

It's important to verify that the filter, purifier or treatment system is certified to the applicable standard for the reduction of the contaminants of most concern. For more information on home filtration treatment system certification, you can go to the following links: <https://www.nsf.org/consumer-resources/water-quality/water-filters-testing-treatment/standards-water-treatment-systems> or [https://www.wqa.org/find-products#](https://www.wqa.org/find-products#/). Filters found in refrigerators, water pitchers, or filters installed on your water tap are not effective at removing manganese and one should check with the filter manufacturer for specific detail. Also, keep in mind that any type of treatment device requires regular maintenance, such as changing filters, cleaning scale build-up, maintaining adequate salt levels in brine tanks, or disinfecting the unit. Failure to properly maintain a unit reduces its effectiveness and, in some cases, may make the water quality worse. Continued maintenance is necessary for the life of the device along with regular water testing to ensure the device is working properly. Ensuring your system is working properly may minimize the need for testing.

Follow the manufacturer's recommendations for filter replacements and maintenance.