



Hull Public Schools

David DeGennaro
School Business Administrator

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November 8, 2016

To the Students, Families, and Staff of Lillian Jacob's Elementary School,

During recent lead and copper water testing in the district, a few water taps in Lillian Jacob's Elementary School had copper standing water readings that exceeded recommended levels for drinking water. It is important to point out these were standing water readings and all subsequent flushing water results were within normal levels. This letter is to inform you of these test results and of our plans to take immediate corrective action. The test results are attached.

Copper: The Massachusetts and federal Action Level for copper in drinking water is greater than 1.3 milligrams per liter (parts per million) and, four (4) fixtures in the building had standing water readings that were higher than recommended but all were within recommended levels after flushing or running the water for 30 seconds before testing.

We take these results very seriously and have taken immediate corrective action to safeguard the health of students, faculty and staff. Neither lead nor copper are believed to be in our water source but could be in the plumbing or fixtures of the building. Therefore we are working closely with MassDEP and others and have developed the action plan detailed below to reduce potential exposure to these elements going forward.

Action Plan:

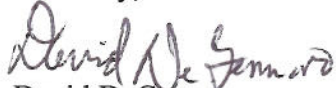
1. We immediately removed all affected taps from service.
2. We are implementing the public information process which includes distribution of the attached outreach material for all students, parents, teachers, staff and local officials.
3. We will undertake efforts to determine the exact cause of exceeding acceptable levels of lead or copper and will evaluate the adequacy of our existing corrosion control system.
 - a. We will develop and implement a corrective action plan as quickly as possible followed by additional testing and consultation with MassDEP.
 - b. The action plan may include replacing pipes and/or fixtures within the school or reconfiguring plumbing to bypass the sources of contamination.

- c. We will use lead and copper free material when making any repairs to the facility plumbing system.
 - d. We will clean aerators on a regular maintenance schedule.
4. We will also consider implementing a flushing program for all fixtures that were found to be above Action Levels for either lead or copper. This includes daily flushing of the affected water fountains and/or faucets. We may also consider installing time-operated solenoid valves to automatically flush problem fixtures.

Through periodic reports, we will update and inform you of our progress. These reports will let you know what has been done and what is being done to safeguard against lead and copper in our drinking water.

If you have any questions on this information, please contact David DeGennaro at 781-925-4400, ext 1115.

Sincerely,

A handwritten signature in dark ink, appearing to read "David DeGennaro", is written over the printed name.

David DeGennaro
School Business Administrator

Jacob's Elementary School - Water Testing Results

Location	Location Description	Copper Reading	Flush Reading	Action Level > 1.3 mg/L	Lead Reading	Flush Reading	Action Level > 0.015 mg/L
066	Classroom Bubbler, room C204	1.55 mg/L	0.507 mg/L flush done for faucet 065				
089	Hallway Bubbler, across from Room B219	1.42 mg/L	1.12 mg/L				
090	Hallway Bubbler, across from Elevator, which is across from Room B219	1.36 mg/L	1.15 mg/L				
108	Hallway Bubbler, across from Main Office	1.35 mg/L	.54 mg/L				

Note: All Flush Readings are below Action Levels.

Copper in Drinking Water FAQ

for School and Childcare Facilities

This fact sheet answers frequently asked questions about copper and health, how copper may get into the drinking water at your school or childcare facility, and how children, teachers, and staff can avoid exposure. Copper is a naturally occurring and essential nutrient for good health in low levels. Exposure to high levels of copper can harm health. Parents of infants and young children, pregnant women, and people with Wilson's disease or liver disease should be aware of possible health effects following exposure to high levels of copper and should take precautions to minimize their exposure.

HOW DOES COPPER GET INTO DRINKING WATER?

In Massachusetts, most drinking water sources from reservoirs and groundwater do not contain elevated levels of copper. When copper is present in water, it is typically due to the water flowing through pipes or plumbing in buildings with copper and brass parts. Service lines, which are the pipes that connect homes, schools, or other buildings to the water main, could have copper in them. Inside the school or facility, there may also be copper pipes or brass fixtures. Copper levels are highest when the water has been sitting in pipes for several hours. The amount of copper in the water decreases after the water is run for 1 minute. Hot water causes copper to dissolve and enter water faster.

HOW DOES COPPER GET INTO SOMEONE'S BODY?

We regularly come into contact with small amounts of copper from breathing air, drinking water, and eating foods. Copper is not easily absorbed through the skin, but we may also come into contact with copper by touching copper, particles attached to copper, or copper compounds. Because copper is essential to good health in small "trace" amounts, everyone absorbs small amounts of copper every

day. Our bodies have a natural mechanism to maintain the proper level of copper.

WHAT IF COPPER LEVELS IN THE DRINKING WATER AT SCHOOL OR CHILDCARE ARE HIGH?

If the copper levels are higher than the U.S. Environmental Protection Agency's (EPA) action level of 1,300 micrograms per liter (or 1,300 parts per billion), your school or childcare facility should work to determine the source. The Massachusetts Department of Environmental Protection (MassDEP) can provide assistance to schools and childcare facilities. Once a school is aware of a water copper exceedance, they should prevent access to any tap or fountain above the action level and provide an alternate source of water. There are a number of ways copper levels can be reduced, such as by replacing pipes and fixtures, reducing the corrosiveness of the water, or initiating a flushing program. Your school or childcare facility should keep parents, teachers, and staff updated as sampling progresses and informed of the results of the testing and their follow up actions.

HOW DOES COPPER MAKE YOU SICK?

Periodically drinking water that contains copper above the action level does not guarantee it will harm someone's health. Consuming levels of copper above the action level may cause nausea, vomiting, diarrhea, and stomach cramps. Some infants and children, people with liver disease, and people with Wilson's disease have trouble eliminating copper from their bodies and are more likely to experience negative health effects, such as kidney and liver damage.

SHOULD I OR MY CHILD HAVE BLOOD OR URINE TESTING DONE?

Medical screening is not generally recommended if copper is detected in drinking water at a school or EEC. Copper is normally found in all tissues of the body. Testing of blood, urine, feces, hair, and/or nails for copper can only show if a person has been exposed to higher than normal levels of copper. It cannot be used to predict the amount of the exposure, how long the exposure occurred, or potential health effects. Specific health questions about exposure to copper should be directed to your doctor or other health care provider.

HOW CAN I REDUCE COPPER EXPOSURE AT SCHOOL AND CHILDCARE FACILITIES?

If you are a student, teacher or staff member, you can help reduce your exposure if copper levels are elevated in tap water.

Easy things to do are:

- Obey signs identifying water outlets that are for handwashing only or shouldn't be used at all.
- Let the water run for 1 minute before you drink from a fountain or faucet.
- Use cold water for drinking and cooking. If you want hot water, run cold water from the faucet and warm it in the microwave or on the stove.
- When mixing powdered baby formula with tap water, always use cold water and do not use hot water. Simply warm formula to serve. Bottled or filtered water should be

used when mixing baby formula if copper levels are known to be elevated in tap water. Filters should be NSF-certified to remove copper.

WHERE CAN I GET MORE INFORMATION?

For additional health information contact:

Massachusetts Department of Public Health
Bureau of Environmental Health
Phone: 617-624-5757 | Fax: 617-624-5777 | TTY:
617-624-5286
www.mass.gov/dph/environmental_health

For additional drinking water information contact:

Massachusetts Department of Environmental Protection
Drinking Water Program
617-292-5770
Program.Director-DWP@state.ma.us
<http://www.mass.gov/eea/agencies/massdep/water/drinking/lead-and-other-contaminants-in-drinking-water.html#19> (and see sections on "Copper" and "Lead and Copper")

NOTE FOR PUBLIC WATER SUPPLIERS:

This FAQ does not fulfill the notification requirements of the Lead and Copper Rule 310 CMR 22.06B. Public Water Systems should contact MassDEP for specific Lead and Copper Rule requirements.

Massachusetts Department of Public Health
Bureau of Environmental Health
250 Washington Street, 7th Floor
Boston, MA 02108
Phone: 617-624-5757 | Fax: 617-624-5777 | TTY: 617-624-5286
www.mass.gov/dph/environmental_health

OCTOBER 2016



Lead in Drinking Water FAQ

for School and Childcare Facilities

This fact sheet answers frequently asked questions about lead and health, how lead may get into the drinking water at your school or childcare facility, and how children, teachers, and staff can avoid exposure. Lead can be found in all parts of the environment. Although lead is found in nature, most exposure comes from human activities or use. Lead-based paint and lead-contaminated dust are the primary sources of exposure for children. Infants, young children, and developing fetuses are most sensitive to the effects of lead because their body systems are not fully developed. Precautions should be taken to minimize lead exposure.

HOW DOES LEAD GET INTO DRINKING WATER?

In Massachusetts, most drinking water sources from reservoirs and groundwater are lead free. When lead is present in water, it is typically due to the water flowing through lead pipes or plumbing in buildings with lead parts or solder. Service lines, which are the pipes that connect homes, schools, or other buildings to the water main, could have lead in them. Inside the school or facility, there may also be lead pipes, pipes connected with lead solder, or brass faucets or fittings containing lead. Lead levels are highest when the water has been sitting in lead pipes for several hours. Additionally, using hot water can draw lead out of pipes, solder or fixtures, releasing it into the water.

HOW DOES LEAD GET INTO SOMEONE'S BODY?

Lead is present in typically low levels in a variety of different sources, such as food, drinking water, soil, dust, and air. Individuals are exposed to lead from eating food, drinking water, accidentally swallowing soil and dust, and from breathing air that contains

lead. Other less common sources of lead include some handmade pottery and imported cookware, home remedies, toys, candy, jewelry, and canned food. Lead-based paint and lead-contaminated dust are the primary sources of exposure for children, but drinking water can be an important contributing source to overall exposure.

Since everyone is exposed to small amounts of lead in their daily life, it is not uncommon for a low level of lead to be present in someone's body.

IS IT SAFE TO BATHE IN WATER WITH ELEVATED LEVELS OF LEAD?

Yes. Lead is not easily absorbed through the skin. It is not a problem to wash hands, bathe, and/or shower in water containing lead.

WHAT IF LEAD LEVELS IN THE DRINKING WATER AT SCHOOL OR CHILDCARE FACILITIES ARE HIGH?

If the lead levels are higher than the Massachusetts Department of Environmental Protection (MassDEP) action level of 15 parts per billion (ppb), your school or childcare facility should work to determine the source. Once a school is aware of a water lead exceedance, they should prevent access to any tap or fountain above the action level and provide an alternate source of water. MassDEP can provide technical assistance to schools and childcare facilities with regard to testing and follow-up measures. There are a number of ways lead levels can be reduced in school drinking water, such as by replacing pipes and fixtures, reducing the corrosiveness of the water, or initiating a flushing program. Your school or childcare facility should keep parents, teachers, and staff updated

as sampling progresses and informed of the results of the testing and their follow up actions.

Children's exposure to lead in drinking water at school is only a small part of their overall potential exposure. Children typically only drink water in schools and childcare facilities for a portion of the day. While it is unlikely that lead in drinking water at schools or childcare facilities would cause staff or children to have significantly elevated blood lead levels, it can contribute to overall exposure. Risk will vary, however, depending on the individual, the circumstances, and the amount of water consumed. For example, infants who drink formula prepared with lead-contaminated water may be at a higher risk because of the large volume of water they consume relative to their body size.

CAN WATER WITH ELEVATED LEAD LEVELS BE USED FOR WASHING OUT CUTS?

Yes. A brief exposure to elevated levels of lead in water while rinsing a cut does not pose any hazard to health.

HOW DOES LEAD MAKE YOU SICK?

Lead detected above the action level does not necessarily mean a child will have elevated levels of lead in their blood. The amount of lead in a child's body depends on several factors, such as their age, nutritional status, and the various sources of lead in their environment.

Lead can affect every organ system in the body, including the nervous system, kidneys, and cardiovascular system. The developing brains of infants, young children, and developing fetuses are at greatest risk. An exposure to lead that would have little effect on an adult can have a big effect on an infant, young child, and developing fetus. Most children who have lead poisoning or high levels of lead exposure do not look or act sick. The only way to confirm lead poisoning is through a blood lead test. It is important to reduce lead exposure as much as possible, particularly for infants, young children, and pregnant women.

WHAT IF I'M PREGNANT OR PLANNING TO BECOME PREGNANT?

Lead can pass from a mother to her developing fetus. Dust from old lead-based paint can be an important source of exposure for pregnant women (such as during renovation). While drinking water is not usually the most significant source of lead exposure leading to elevated blood lead levels, it can be an important contributing source to overall exposure. Most people are exposed to small amounts of lead every day from other sources like food, soil, dust, and air. Pregnant women should be aware of potential exposure to lead from the workplace, from the use of traditional home remedies, imported cosmetics or lead-glazed pottery from cooking or storing food. Additionally, a craving to eat or mouth nonfood substances, such as soil or jewelry, can expose a person to lead. Talk to your doctor or other health care provider to discuss your lead exposure risks and whether you should be tested.

SHOULD I OR MY CHILD HAVE BLOOD TESTING DONE?

Testing all children following the detection of elevated levels of lead in a school's or a childcare facility's drinking water is not recommended. It is unlikely that lead in drinking water at schools or EEC facilities would cause staff or children to have elevated blood lead levels. The most important thing to do is to identify and remove suspected sources of lead exposure.

Blood tests are commonly used to screen children for lead poisoning. In Massachusetts, young children must have their blood lead levels tested at age 9-12 months, and again at ages 2 and 3, and also sometimes at age 4, depending on where they live. This scheduled approach to blood lead testing helps identify lead poisoned children, and eliminate sources of lead exposure in the most sensitive population. While we do not recommend testing all children at schools or EECs where elevated levels of lead in drinking water have been identified, if your child has never been screened, or you have specific health concerns about your child, you should discuss this with your doctor or other health care provider.

HOW CAN I REDUCE LEAD EXPOSURE AT SCHOOL AND CHILDCARE FACILITIES?

If you are a student, teacher or staff member, you can help reduce your exposure if lead levels are elevated in tap water.

Easy things to do are:

- Obey signs identifying water outlets that are for handwashing only or shouldn't be used at all.
- Let the water run for 1 minute before you drink from a fountain or faucet.
- Use cold water for drinking and cooking. If you want hot water, run cold water from the faucet and warm it in the microwave or on the stove.
- When mixing powdered baby formula with tap water, always use cold water and do not use hot water. Simply warm formula to serve. Bottled or filtered water should be used when mixing baby formula if lead levels are known to be elevated in tap water. Filters should be NSF-certified to remove lead.

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617-624-5286

www.mass.gov/dph/environmental_health

Massachusetts Department of Public Health
Childhood Lead Poisoning Prevention Program
1-800-532-9571 or www.mass.gov/dph/clppp

For additional drinking water information contact:

Massachusetts Department of Environmental
Protection
Drinking Water Program
617-292-5770
Program.Director-DWP@state.ma.us
<http://www.mass.gov/eea/agencies/massdep/water/drinking/lead-in-drinking-water.html>
(and see the "Schools and Childcares" tab)

NOTE FOR PUBLIC WATER SUPPLIERS: This FAQ does not fulfill the notification or education requirements of the Lead and Copper Rule 310 CMR 22.06B. Public Water Systems should contact MassDEP for specific Lead and Copper Rule requirements of public water systems to notify consumers of elevated lead results.

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