

**Kiddie Kollege  
Franklinville, Gloucester County  
Mercury Fact Sheet #1: August 2, 2006**

*What is mercury?*

Mercury is a naturally occurring element. It is found in three different forms:

- elemental (also known as metallic),
- organic, and
- inorganic.

Mercury's form affects its toxicity and its biological fate. This fact sheet focuses on **elemental mercury**, because this is the form that was found inside Kiddie Kollege.

Elemental mercury, which is found in some thermometers, appears as a heavy, bright silver liquid that can give off mercury vapor in the air at room temperature. Beads of liquid mercury can break into many smaller beads. Because it is a liquid it can flow into cracks and spread throughout an area without being visible. It does not break down in the environment.

*How might children and staff of Kiddie Kollege have been exposed to mercury?*

The children and staff may have been exposed to elemental mercury at Kiddie Kollege in three ways: inhalation of mercury vapor, skin absorption, and accidental ingestion. **Inhalation** is the most likely way that Kiddie Kollege children and staff would have been exposed to mercury. Much of the mercury vapor that is inhaled enters the bloodstream, and from there it is carried to other parts of the body. Elemental mercury is slowly removed from the body through urine. Because mercury vapor is heavier than air, it will accumulate in air near the floor, in a child's breathing zone.

Anyone who touched the liquid mercury may have **absorbed some mercury through the skin**. It is unknown how much elemental mercury is absorbed through the skin, but is probably little. Children may have also **accidentally swallowed** mercury through their normal hand-to-mouth activities. Mercury that is swallowed is not easily absorbed by the body, and nearly all mercury taken into the body this way is quickly eliminated through feces.

It is also important to note how staff, parents and children **ARE NOT** exposed to mercury. Handling biological fluids from exposed children will not result in mercury exposure (e.g., changing a diaper). Physical contact with children or staff will not spread mercury contamination to others, assuming they were not wearing extremely contaminated clothing. Any illnesses or symptoms caused by mercury exposure are not contagious.

*What is being done to protect children and staff from mercury?*

The most important way of protecting children and staff from continued mercury exposure was removing them from the building. This occurred as of July 28, 2006. The next steps are to identify mercury exposures among children and staff.



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### ***How do I know if I or my child has been exposed to mercury?***

For exposures that occurred more than a few days ago, urine testing is an appropriate way to find out if children or adults were exposed to elemental mercury. Urine testing for mercury can help identify how much mercury someone may have been exposed to, and what effect those exposures might have on health. A first-morning void “spot urine” sample is preferred. The New Jersey Department of Health and Senior Services (NJDHSS), the federal Agency for Toxic Substances and Disease Registry (ATSDR) and the Centers for Disease Control and Prevention’s (CDC) National Center for Environmental Health (NCEH) laboratories are working together to provide urine testing for children and staff. Over the next few days the NJDHSS and ATSDR will bring urine sample containers to the parents of children and to staff of Kiddie Kollege and pick up the samples when they are ready. The NCEH will test the samples and provide the results back to the NJDHSS. NJDHSS will then provide individual results to parents and staff.

### ***What are the health effects of elemental mercury exposure?***

The risk to a person’s health depends on how long they were exposed, how much mercury was in the air, and what conditions might make them more susceptible to mercury’s effects. Not everyone who is exposed to mercury will have all the signs and symptoms of mercury exposure.

When urine mercury tests are complete the NJDHSS and ATSDR will be better able to help you understand what your or your child’s exposures and potential health effects might be.

Generally, long-term exposure to mercury vapor can affect the nervous system. Higher exposures are more likely to cause symptoms than lower exposures. Central nervous system signs which can occur when urine mercury levels are higher than 100 ug/l include psychological changes, insomnia, loss of appetite with weight loss, excessive shyness, emotional instability, irritability, headache, and short-term memory loss. Tremor is characteristic of exposure, and may affect the fingers, eyelids, lips, hands and arms. Acrodynia, a rare condition with symptoms that include severe leg cramps and painful pink fingers and peeling skin on the hands and feet, occurs only in children. Effects at lower levels (between 20 and 100 ug/l) can include decreased responses on tests of nerve conduction, brain wave activity, and verbal skills. Children may be more susceptible to mercury’s effects.

### ***Who should I talk to if I am concerned about my health or my child’s health?***

You should begin by discussing your concerns with your physician or your child’s pediatrician. There are clinics that specialize in environmental health problems that your primary care provider may want to contact.

- For adults: The Environmental and Occupational Health Clinical Center in Piscataway, NJ sees adults who have been exposed to contaminants occupationally or environmentally. They can be reached at (732) 445-0123.
- For children: Pediatricians can contact the Mt. Sinai Medical Center’s Pediatric Environmental Health Specialty Unit at (866) 265-6201, or Dr. Damiris Perez directly at 212-241-5756.
- For pregnant women: Anyone with a pregnancy-related concern can also contact the Southern New Jersey Perinatal Cooperative Pregnancy Healthline at (888) 722-2903.