

## Do You Have Mercury in Your Workplace or Home?

Mercury and items that contain mercury must always be treated with exceptional care to prevent an accidental exposure. The first step to ensuring proper handling and disposal is to identify items which contain mercury. The following items found on NIH campuses may contain mercury:

- Thermometers (you can recognize the silver liquid inside)
- Sphygmomanometers
- Dental Amalgam
- Centrifuges (used in the balance cups of older models)
- Millon's Reagent (used for protein tests)
- Mercury(II) chloride (used primarily in stains)
- Other mercury chemicals, such as mercury(II) oxide, mercury iodide, and mercury sulfate
- For a more extensive list, please visit our ORF sites for mercury [reagents](#) and [equipment](#)

As discussed in "[The Dangers of Mercury](#)" article, mercury spills or improper disposal of mercury-containing items can have adverse effects on human health and the environment. The NIH has strict regulations for the acquisition and handling of mercury, as established by the [NIH Policy Manual Chapter 3033](#). This policy was established in 2003 to prevent the acquisition of mercury where unnecessary, to minimize the acquisition of mercury where it is needed, and to ensure proper use and disposal of existing mercury products.

NIH staff that wish to purchase an item containing a mercury concentration equal to or above 100 ppb must submit a "[Special Exception](#)" form before acquisition. The application will be reviewed by the IC Scientific Director and the Division of Environmental Protection (DEP) before the purchase can be made. Standing exceptions to this policy include items with less than 100 ppb of mercury, fluorescent lights, dental amalgams and a few other items (which can be viewed in the [policy](#)).

Along with proper acquisition of mercury-containing items, NIH staff should note that all mercury waste must be disposed separately from other waste streams by calling DEP at 301-496-7990 and scheduling a pickup. Under no circumstances should mercury be disposed to the sanitary sewer or into other waste streams. The Washington Suburban Sanitary Commission (WSSC) restricts mercury concentrations in NIH wastewater to 1 ppb or less and strictly monitors and enforces this limit.<sup>1</sup> Failure to adhere to this WSSC requirement can result in NIH receiving fines and having discharge privileges revoked.

Mercury remediation from improper disposal is often many times more expensive than proper disposal and also presents hazards to the environment and human health. Following proper protocol for the disposal of mercury can minimize these risks. **In the event of a mercury spill on campus, you should immediately call the appropriate 911 number for your facility.**

Many household items also contain mercury! Here is a list of household items that could contain mercury:

- Thermometers & Thermostats
- Fluorescent Lights (with greater concentrations in older lights)
- Barometers & Manometers
- Button Batteries

- TV Screens & Computer Monitors (mercury is used in LCD screens)
- Electrical Relays & Switches
- Chest Freezers, Space Heaters, Washing Machines, Water Heaters & Other Appliances (mainly in older models)
- For a comprehensive list, please visit the EPA site on [mercury in consumer products](#)

Many of these items are relatively safe and only present a hazard when they are accidentally broken or disposed incorrectly. Additionally, many of these items have mercury-free alternatives that are much safer, such as thermometers filled with alcohol or digital thermometers (which offer better response time, expanded temperature range and digital recording).<sup>2</sup> Another alternative is to replace older models of these items with newer versions that likely contain little or no mercury. As an example, fluorescent light bulbs now average only 4 mg of mercury, which is over 100 times less than older thermometers.<sup>3</sup>

If you have found items containing mercury in your house, you should contact your local recycling department to learn the proper disposal method. Residents of Montgomery County can use the "[Household Hazardous Waste](#)" program to drop-off mercury-containing items at a central location. Other nearby counties offer similar programs for their residents. Please contact the Division of Environmental Protection at 301-496-7990 with any questions regarding the proper disposal of mercury.