	The Johns Hopkins University and The Johns Hopkins Hospital <b>Health, Safety and Environment Manual</b> <b>Safety Policies:</b>	<i>Policy Number</i>	HSE050
		<i>Last Review Date</i>	09/16/2016
	<i>Subject</i> <b>Mercury Elimination</b>	<i>Page</i>	1 of 2

**Keywords:** blood pressure devices, Cantor, Contaminated, dilators, elimination, esophageal bougies, Mercury, neurotoxin , sphygmomanometers, Thermometers

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## **I. POLICY**

To protect patients, staff, and the environment, it is the policy of The Johns Hopkins Hospital to eliminate the use of mercury-containing devices and materials where safe, effective mercury-free alternatives exist and to ensure the safe handling of remaining mercury-containing products and equipment.

## **II. BACKGROUND**

Mercury is a liquid metal that occurs naturally in the environment. It enters the environment from a large number of sources related to its use in elemental form and in compounds. Mercury is a neurotoxin which persists in the environment and can bioaccumulate in the food chain. Humans are exposed to mercury either through consumption of contaminated foods, typically fish or other seafood, or through exposure to mercury in the workplace

Healthcare facilities are known to contribute mercury to the environment through medical waste treatment technologies, wastewater, and solid waste. There are a variety of sources of mercury and mercury-related compounds in hospitals. Certain types of medical equipment and devices contain mercury, including thermometers, sphygmomanometers (blood pressure devices), esophageal bougies and dilators, Cantor or Miller-Abbott tubes and batteries. Mercury can be found in switches, relays, thermostats, fluorescent lamps, computer monitors and other electrical equipment. Labs and pharmacies are also a source of mercury, in equipment such as thermostats, electron microscopes and other diagnostic equipment, as well as in stains, fixatives and pharmaceutical formulations. The mercury-based preservative thimerosal is still used in certain drug and vaccination formulations.



All mercury-containing waste and equipment must be handled under the EPA's Resource Conservation and Recovery Act (RCRA) regulations or as Universal Waste. Due to the hazards associated with mercury, proper handling and disposal of mercury is critical to avoiding worker exposure and environmental contamination.

## **III. REFERENCES**

Making Medicine Mercury Free.

Practice Greenhealth.

<https://www.practicegreenhealth.org/pubs/mercfree.pdf>

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#### **IV. RESPONSIBILITIES**

HSE	<p>Ensure that all mercury-containing devices and materials are disposed of in accordance with environmental regulations.</p> <p>Provide guidance on working with mercury, including spill clean-up and use of personal protective equipment.</p>
Purchasing	Flag mercury-containing devices and identify mercury-free alternatives
Facilities	Identify mercury-containing equipment under Facilities control
Clinical Laboratories	Identify mercury-containing reagents and stains and determine if a non-mercury substitutes are available.

#### **V. REVIEW CYCLE**

Annual