

Overview**Useful For**

Detecting mercury toxicity due to occupational exposure in random urine specimens

Special Instructions

- [Trace Metals Analysis Specimen Collection and Transport](#)

Method Name

Only orderable as part of a profile. For more information see:

-HGUOE/ Mercury Occupational Exposure, Random, Urine

-HMUOE / Heavy Metal Occupational Exposure, with Reflex, Random, Urine

Inductively Coupled Plasma-Mass Spectrometry (ICP-MS)

NY State Available

Yes

Specimen**Specimen Type**

Urine

Specimen Required

Only orderable as part of a profile. For more information see:

-HGUOE/ Mercury Occupational Exposure, Random, Urine

-HMUOE / Heavy Metal Occupational Exposure, with Reflex, Random, Urine

Specimen Minimum Volume

3 mL

Reject Due To

All specimens will be evaluated at Mayo Clinic Laboratories for test suitability.

Specimen Stability Information

Specimen Type	Temperature	Time	Special Container
Urine	Refrigerated (preferred)	7 days	
	Frozen	7 days	

Clinical and Interpretive

Clinical Information

The correlation between the levels of mercury (Hg) excretion in the urine and the clinical symptoms is considered poor. However, urinary Hg is the most reliable way to assess exposure to inorganic Hg.

For more information, see HG / Mercury, Blood.

Reference Values

Only orderable as part of a profile. For more information see:

-HGUOE/ Mercury Occupational Exposure, Random, Urine

-HMUOE / Heavy Metal Occupational Exposure, with Reflex, Random, Urine

Cautions

To avoid contamination by dust, specimen should be collected away from the site of suspected exposure.

Clinical Reference

1. Snoj Tratniid J, Falnoga I, Mazej D, et al: Results of the first national human biomonitoring in Slovenia: Trace elements in men and lactating women, predictors of exposure and reference values. *Int J Hyg Environ Health*. 2019;222(3):563-582
2. Sherman LS, Blum JD, Franzblau A, Basu N: New insights into biomarkers of human mercury exposure using naturally occurring mercury stable isotopes. *Environ Sci Technol*. 2013;47(7):3403-3409
3. Lee R, Middleton D, Caldwell K, et al: A review of events that expose children to elemental mercury in the United States. *Environ Health Perspect*. 2009 Jun;117(6):871-878
4. Bjorkman L, Lundekvam BF, Laegreid T, et al: Mercury in human brain, blood, muscle and toenails in relation to exposure: an autopsy study. *Environ Health*. 2007 Oct 11;6:30

Performance**Method Description**

Mercury (Hg) in urine is analyzed by inductively coupled plasma-mass spectrometry (ICP-MS) in kinetic energy discrimination (KED) mode using gallium (Ga), rhodium (Rh), and iridium (Ir) as internal standards and a 5% nitric acid salt matrix calibration. (Unpublished Mayo method)

PDF Report

No

Day(s) Performed

Monday through Friday

Report Available

1 day

Specimen Retention Time

14 days

Performing Laboratory Location

Rochester

Fees and Codes**Fees**

- Authorized users can sign in to [Test Prices](#) for detailed fee information.
- Clients without access to Test Prices can contact [Customer Service](#) 24 hours a day, seven days a week.
- Prospective clients should contact their Regional Manager. For assistance, contact [Customer Service](#).

Test Classification

This test was developed and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. This test has not been cleared or approved by the U.S. Food and Drug Administration.

LOINC® Information

Test ID	Test Order Name	Order LOINC Value
HGOU	Mercury Occupational Exposure	13465-0

Result ID	Test Result Name	Result LOINC Value
608893	Mercury Occupational Exposure	13465-0