MAYO CLINIC LABORATORIES

Test Definition: HGOU

Mercury Occupational Exposure, Random, Urine

Overview

Useful For

Detecting mercury toxicity due to occupational exposure in random urine specimens

Special Instructions

- 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

Triple-Quadrupole Inductively Coupled Plasma Mass Spectrometry (ICP-MS/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

1.5 mL

Specimen Stability Information

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

Clinical & 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

Biological Exposure Index (BEI): <35 mcg/g creatinine prior to shift

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. 2019222(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. Envrn 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;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 11;6:30
5. Strathmann FG, Blum LM: Toxic elements. In: Rifai N, Chiu RWK, Young I, Burnham CD, Wittwer CT, eds. Tietz Textbook of Laboratory Medicine. 7th ed. Elsevier; 2023:chap 44

Performance

Method Description

The metal of interest is analyzed by triple-quadrupole inductively coupled plasma mass spectrometry.(Unpublished Mayo method)

PDF Report

No

Day(s) Performed

Monday through Friday

Report Available

2 to 4 days

Test Definition: HGOU

Mercury Occupational Exposure, Random, Urine

Specimen Retention Time

14 days

Performing Laboratory Location

Mayo Clinic Laboratories - Rochester Superior Drive

Fees & 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 account representative. 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. It has not been cleared or approved by the US Food and Drug Administration.

CPT Code Information

83825

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