

# **Heavy Metal Testing**

CPT: 82108, 82175, 82300, 82495, 82525, 83015, 83018, 83655, 83785, 83825, 83885, 84255, 84285, 84285, 84630

#### CMS Policy for Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont

Local policies are determined by the performing test location. This is determined by the state in which your performing laboratory resides and where your testing is commonly performed.

Medically Supportive ICD Codes are listed on subsequent page(s) of this document.

#### Coverage Indications, Limitations, and/or Medical Necessity

The term heavy metal testing is historically used to describe elements such as lead, arsenic, mercury, cadmium, and chromium. In general, all of the heavy metals in inorganic form cause GI irritation, resulting in nausea, vomiting, abdominal pain and diarrhea. The next most consistent toxicity for the heavy metals as a group, but not for every heavy metal, is renal toxicity. A further generalization is that each member of the heavy metal group tends to cause multi-organ toxicity. Many metals cause cutaneous abnormalities, such as irritant and allergic contact dermatitis, urticaria, keratoses, and premalignant and malignant lesions. Several of the heavy metals produce central and peripheral nervous system toxicity. Other metals cause pulmonary illness.

However, before any testing for heavy metal is ordered, a detailed medical history of the patient must be obtained, including a careful documentation of occupational and avocational exposure to these toxins. A complete physical examination must be done. While classified as heavy metals, this policy does not include iron or lithium since the former is typically tested for anemia issues and the latter is typically tested for monitoring of medications. In addition, iron testing is covered under the National Coverage Determination 190.18 (Serum Iron Studies).

- 1. Aluminum. Serum aluminum testing is payable for beneficiaries who have been on dialysis with evidence suggesting aluminum toxicity, or for beneficiaries with chronic industrial exposure history
- 2. Antimony. Serum and/or urine antimony testing is payable for beneficiaries with documented treatment in the past with antileishmaniasis agents or with documented chronic antimony industrial exposure history.
- 3. Arsenic. Serum and whole blood and/or urine arsenic testing is payable for beneficiaries with unexplained peripheral neuropathies, industrial exposure to arsenic, histories of arsenic pesticide exposure, unexplained encephalopathies, unexplained weight loss, chronic glomerulonephritis, bone marrow hypoplasia, or melanosis of skin, unexplained chronic diarrhea, persistent abdominal pain, or nausea and vomiting.
- 4. Barium. Serum and or/urine barium testing is payable for beneficiaries with pulmonary disease with industrial exposure tobarium or unexplained flaccid paralysis.
- 5. Beryllium. Serum and/or urine beryllium testing is payable for beneficiaries with pulmonary disease with industrial exposure to beryllium.
- 6. Bismuth. Serum and/or urine bismuth testing is payable for beneficiaries with bismuth lines on their gums, methemoglobinemia, unexplained pathological fractures, or a history of bismuth medicine abuse.
- 7. Cadmium. Serum and whole blood and/or urine cadmium testing is payable for beneficiaries with an exposure to cadmium with evidence of pulmonary disease or unexplained renal failure.
- 8. Chromium. Serum chromium testing is payable for beneficiaries with an industrial exposure to chromium with evidence of pulnonary disease.



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CMS Policy for Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont (continued)

- 9. Cobalt. Serum cobalt testing is payable for beneficiaries with an industrial exposure to cobalt with evidence of pulmonary disease
- 10. Copper. Serum copper testing is payable for beneficiaries with an industrial exposure to copper with evidence of pulmonary disease, or for beneficiaries with Wilson's Disease, unexplained cardiomyopathy, unexplained renal failure, polycythemia. unexplained myelodysplastic syndrome or known ingestion of zinc.
- 11. Lead. Blood (serum and whole) and/or urine lead testing is covered if there is documented industrial exposure to lead, documented avocation exposure to lead, retained bullet fragments at or near joints, a blue gum line, a history of moonshine abuse, unexplained peripheral neuropathies, evidence of lead contaminated drinking water, paint stripping, lead lines on bones on radiographs, or basophilic stippling of red blood cells.
- 12. Manganese. Serum manganese testing is covered for beneficiaries with documented industrial exposure to manganese.
- 13. Mercury. Serum, whole blood, and/or urine mercury testing is covered for beneficiaries with documented industrial exposure to mercury, with a blue line in their mouth, those with a history of laxative abuse, with a history of pesticide exposure, mercury spillage with vacuuming of the liquid metal, unexplained renal failure, or a history of skin lightening treatments.
- 14. Molybdenum. Serum molybdenum testing is covered for beneficiaries with documented industrial exposure to molybdenum.
- 15. Nickel. Serum and/or urine nickel testing is covered for beneficiaries with documented industrial exposure to nickel, unexplained renal failure, unexplained pulmonary disease.
- 16. Selenium. Serum and/or urine selenium testing is covered for beneficiaries with documented industrial exposure to selenium or on chronic renal dialysis.
- 17. Thallium. Serum thallium testing is covered for beneficiaries with documented industrial exposure to thallium and unexplained ataxia.
- 18. Tin. Serum tin testing is covered for beneficiaries with documented industrial exposure to tin.
- 19. Titanium. Serum titanium testing is covered for beneficiaries with documented industrial exposure to titanium.
- 20. Zinc. Serum zinc and/or urine testing is covered for beneficiaries with documented industrial exposure to zinc, on chronic renal dialysis, with malabsorption syndromes, Crohn's disease, unexplained myelodysplastic syndrome or known ingestion of zinc.
- 21. Testing for the following metals is non-covered: Boron, Phosphorous, Silica, Strontium, Sulfur, Uranium, Vanadium

Documented recent, long-term total parenteral nutrition (TPN) with clinical trace element deficiency evidence is an acceptable medical indication for testing for copper, manganese, and zinc.



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Please refer to the Limitations or Utilization Guidelines section on previous page(s) for frequency information.

The ICD10 codes listed below are the top diagnosis codes currently utilized by ordering physicians for the limited coverage test highlighted above that are also listed as medically supportive under Medicare's limited coverage policy. If you are ordering this test for diagnostic reasons that are not covered under Medicare policy, an Advance Beneficiary Notice form is required. \*Note—Bolded diagnoses below have the highest utilization

Code	Description
E83.00	Disorder of copper metabolism, unspecified
E83.09	Other disorders of copper metabolism
G58.8	Other specified mononeuropathies
K50.819	Crohn's disease of both small and large intestine with unspecified complications
K50.913	Crohn's disease, unspecified, with fistula
K50.918	Crohn's disease, unspecified, with other complications
K74.60	Unspecified cirrhosis of liver
K90.9	Intestinal malabsorption, unspecified
R63.30	
R63.39	
R74.8	Abnormal levels of other serum enzymes
T56.0X4A	Toxic effect of lead and its compounds, undetermined, initial encounter
T56.0X4S	Toxic effect of lead and its compounds, undetermined, sequela
T56.1X4A	Toxic effect of mercury and its compounds, undetermined, initial encounter
T56.1X4S	Toxic effect of mercury and its compounds, undetermined, sequela
T56.891A	Toxic effect of other metals, accidental (unintentional), initial encounter

Visit QuestDiagnostics.com/MLCP to view current limited coverage tests, reference guides, and policy information.

To view the complete policy and the full list of medically supportive codes, please refer to the CMS website reference www.cms.gov ▶

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