Toxic Metals; stool

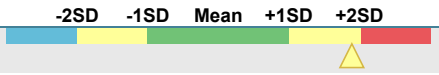
Order: 999999-9999
Test: X999999-9999-1
Client #: 999999
Doctor: Sample Doctor, MD
Doctors Data Inc
123 Main St.
St. Charles, IL 60174 USA

Patient: Sample Patient
Id: 999999
Age: 50 **DOB:**
Sex: Female

Sample Collection	Date/Time
Date Collected	08/12/2022
Date Received	08/15/2022
Date Reported	08/22/2022

Toxic Metals	Result	Unit	Reference Interval
Antimony	0.023	mg/kg Dry Wt	< 0.050
Arsenic	0.34	mg/kg Dry Wt	< 0.20
Beryllium	<dl	mg/kg Dry Wt	< 0.011
Bismuth	0.002	mg/kg Dry Wt	< 0.100
Cadmium	0.46	mg/kg Dry Wt	< 0.50
Cesium	0.195	mg/kg Dry Wt	< 0.1
Copper	66	mg/kg Dry Wt	< 60
Gadolinium	0.009	mg/kg Dry Wt	< 0.03
Lead	0.27	mg/kg Dry Wt	< 0.30
Manganese	201.0	mg/kg Dry Wt	< 200
Mercury	0.123	mg/kg Dry Wt	< 0.050
Nickel	5.6	mg/kg Dry Wt	< 8.0
Platinum	<dl	mg/kg Dry Wt	< 0.003
Thallium	0.089	mg/kg Dry Wt	< 0.020
Tungsten	0.024	mg/kg Dry Wt	< 0.130
Uranium	0.078	mg/kg Dry Wt	< 0.100

Water Content	Result	Unit	Reference Interval
Water Content	84.3	%	66.3 – 78.8



- Analysis of elements in feces provides a means to assess oral exposure, and to a lesser extent endogenous detoxification of potentially toxic metals. For several toxic elements such as mercury, cadmium, lead, antimony and uranium, biliary excretion of metals into feces is a primary natural route of elimination from the body. Studies performed at Doctor's Data demonstrate that the fecal mercury content and number of amalgam surfaces are highly correlated. Therefore people with several amalgams in place will typically have higher concentrations of fecal mercury than people without amalgams.

  Results are reported as mg/kg dry weight of feces to eliminate the influence of variability in water content of fecal specimens.

  To provide guidance in interpretation of results, patient values are plotted graphically with respect to percentile distribution of the population base. Since this test reflects both oral exposure and biliary excretion of metals, overt clinical associations are not directly implied.

- **Thallium High**
  Fecal thallium (Tl) provides an indication of Tl that has been excreted from the body in bile, and to a lesser extent recent oral exposure to the element. The biliary fecal route is the primary route of Tl excretion from the body, although about 35% is excreted in urine. Tl is rapidly and near completely absorbed when ingested, inhaled or brought into contact with skin. Thallium is a highly toxic heavy metal which is generally tasteless and odorless, and doesn't have physiological functions in the body.

Notes:
Methodology: ICP-MS

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Currently the most common sources of dietary Tl are contaminated vegetables, fish and shellfish; particularly those obtained in close proximity to drilling sites for natural gas and oil. Kale, spinach, cabbage and other Brassicaceae family vegetables appear to be most highly contaminated. The highest levels of urine Tl observed at Doctor's Data have been associated with daily consumption of "green drinks" that were prepared at home from raw Brassicaceae vegetables. It should be noted that a statement of "organic" generally does not provide any assurance that the produce is not contaminated with Tl. Contaminated water has apparently been used to irrigate crops in certain agricultural areas in California. Other possible sources of Tl include tobacco, fly ash (coal), cement dust, some fertilizers, some artists' paints, semiconductors, and hazardous waste sites and landfills (nearby drinking water/soil). Thallium is also a by-product from the smelting of copper, zinc and lead ores.

Symptoms associated with significant exposure to Tl may include: fatigue, headaches, sleep disturbance, neuropathy, ataxia, depression, psychoses, and extreme loss of hair. Thallium follows potassium in the body and accumulates in tissues with high potassium content including skeletal/cardiac muscle, and central/peripheral nerves.

Hair elemental analysis may be utilized to assess exposure to Tl over the past 2-4 months.

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