# Toxic Metals; stool

DOCTOR'S DATA INC

**Order:** [redacted]
**Test:**
**Client #:**
**Doctor:** Ray Psonak, DO
Chelation Medical Center
483 Maple Ridge Road Box 55
Harrison, ME 04040 U.S.A.

**Patient:**
**Id:**
**Age:** **DOB:**
**Sex:** Female

| Sample Collection | Date/Time |
|---|---|
| Date Collected | '2022 |
| Date Received | :2022 |
| Date Reported | /2022 |

| Toxic Metals | Result | Unit | Percentile (68th / 95th) | Reference Interval |
|---|---|---|---|---|
| Gadolinium | 0.897 | mg/kg Dry Wt | | < 0.03 |

| Water Content | Result | Unit | -2SD -1SD Mean +1SD +2SD | Reference Interval |
|---|---|---|---|---|
| Water Content | 70.1 | % | | 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.

- **Gadolinium High**
  Fecal gadolinium (Gd) provides an indication of Gd that has been excreted from the body in bile, and to a lesser extent oral exposure.

  Gadolinium can be found in the environment in geographically variable amounts, and usually at very low levels. Gadolinium is widely used in industrial and household applications such as radar technologies, compact discs, and microwaves; direct exposure from such sources is not a concern. However disposal of Gd-containing devices contributes to greater potential for human exposure. The single greatest direct source of exposure to Gd is Gd-based contrast agents (GBCAs) that are widely used with magnetic resonance imaging (MRI). Concern has been raised regarding the use of unstable linear GBCAs, especially for patients with mild to severe kidney dysfunction. Fecal Gd levels vary with the time after administration, and the dose of the specific GBCA. There is much controversy regarding the safety of certain unstable GBCAs; Gd doesn't have physiological functions in the body.

  Urinary levels of Gd typically decrease very rapidly after administration for patients who have good kidney function (glomerular filtration rate; GFR). However, the rate of Gd clearance may be markedly slowed with compromised GFR. Fecal Gd levels have not been well studied, but preliminary observations indicate that fecal levels of Gd also normally decrease sharply with time after administration of GBCAs (unpublished, Doctor's Data). While the Gd levels normally decrease rather rapidly in urine and feces, it is clear that some Gd is retained in the body for a long time. Of greatest potential concern is Gd deposition in the brain, which is correlated with the number of GBCA-enhanced MRIs.

  Gadolinium deposition disease (GDD) has recently been described and may be associated with central and peripheral pain, headache, bone pain, skin thickening, muscle weakness, arthralgia, and persistent clouded mentation and headache. If such new symptoms appear 2-8 weeks after Gd-enhanced MRI, it is recommended to assess the level of Gd in urine (1st AM void or 24 hour collection).

**Notes:**
**Methodology:**



Analyzed by DOCTOR'S DATA, INC. • 3755 Illinois Avenue, St. Charles, IL 60174-2420 USA • LAB DIR: Eric Roth, MD • CLIA ID: 14D0646470