

---

**Lab Dept:** Chemistry

**Test Name:** MAGNESIUM

---

***General Information***

**Lab Order Codes:** MG

**Synonyms:** Mg

**CPT Codes:** 83735 - Magnesium

**Test Includes:** Magnesium concentration in mg/dL.

---

***Logistics***

**Test Indications:** Useful for evaluating magnesium and electrolyte status. Magnesium is the fifth most abundant cation in the body and is second only to potassium within cells. Magnesium deficiencies are related to impairment of neuromuscular function, cardiovascular disease and hypertension.

**Lab Testing Sections:** Chemistry

**Phone Numbers:** MIN Lab: 612-813-6280

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 1 hour

**Special Instructions:** N/A

---

***Specimen***

**Specimen Type:** Blood

**Container:** Green top (Li Heparin) tube, **preferred**  
Alternate tube: Red, marble or gold top tube

**Draw Volume:** 0.6 mL blood

**Processed Volume:** 0.2 mL serum/plasma

**Collection:** Routine blood collection. Mix tubes containing anticoagulant by gentle inversion.

**Special Processing:** Lab Staff: Centrifuge specimen, remove serum/plasma aliquot into a plastic sample cup. Analyze sample immediately or store at refrigerated temperatures.

**Patient Preparation:** None

**Sample Rejection:** Mislabeled or unlabeled specimen

---

***Interpretive***

<b>Reference Range:</b>	<b>Age:</b>	<b>Range (mg/dL)</b>
	All ages:	1.5 – 2.5

**Critical Values:** <1.2 mg/dL and >6.6 mg/dL

**Limitations:** Hemolysis causes an increase in magnesium and may be a cause for sample rejection. Excess bilirubin or lipemia increases magnesium values.

**Methodology:** Methylthymol blue

**References:** MG Flex® reagent cartridge insert sheet Siemens Healthcare Diagnostics (2/4/2010) Version L

Jacobs & DeMott Laboratory Test Handbook Lexi-Comp, Inc (2001) Hudson, OH, 5th Edition

Biorad Liquichek Unassayed Chemistry Control Product Insert

**Updates:** 2/17/2005: Added >5.5 mEq/L to Critical Values  
12/10/2013: Units change from mEq/L to mg/dL. Note reference range changes.  
2/10/2016: Updated alt tube types