
Lab Dept: Urine/Stool

Test Name: MAGNESIUM, RANDOM URINE

General Information

Lab Order Codes: UMAGR

Synonyms: Mg, Random Urine

CPT Codes: 83735 – Magnesium
82570 – Creatinine, Urine

Test Includes: Urine magnesium concentration in mg/dL, creatinine in mg/dL and magnesium/creatinine ratio in mg/mg creat.

Logistics

Test Indications: Assessing the cause of abnormal serum magnesium concentrations. Determining whether nutritional magnesium loads are adequate. Calculating urinary calcium oxalate and calcium phosphate supersaturation and assessing kidney stone risk.

Lab Testing Sections: Chemistry - Sendouts

Referred to: Mayo Clinic Laboratories (Mayo test: MAGRU)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 1-3 days

Special Instructions: N/A

Specimen

Specimen Type: Urine, random collection (No preservative)

Container: Plastic leakproof container (No preservative)

Draw Volume: 1 - 4 mL random urine

Processed Volume: 1 – 4 mL (Minimum: 1 mL) urine

Collection: A random urine sample may be obtained by voiding into a urine cup and is often performed at the laboratory. Bring the refrigerated container to the lab. Make sure all specimens submitted to the laboratory are properly labeled with the patient's name, medical record number and date of birth.

Special Processing: N/A

Patient Preparation: None

Sample Rejection: Mislabelled or unlabeled specimens

Interpretive

Reference Range:

Age:	Reference Range (mg/mg creat):
Note: Reference ranges have not been established for patients who are less than 1 month old.	
1 month - <12 months	0.10 – 0.48
12 months - <24 months	0.09 – 0.37
24 months - <3 years	0.07 – 0.34
3 years - <5 years	0.07 – 0.29
5 years - <7 years	0.06 – 0.21
7 years - <10 years	0.05 – 0.18
10 years - <14 years	0.05 – 0.15
14 years - <18 years	0.05 – 0.13
18 years - <83 years	0.04 – 0.12

Critical Values: N/A

Limitations: Urinary magnesium excretion must be interpreted with caution during periods of intravenous magnesium infusion.

Methodology: Magnesium: Colorimetric Endpoint Assay
Creatinine: Enzymatic Colorimetric Assay

References: [Mayo Clinic Laboratories](#) April 2021

Updates:

12/10/2013: Units change to mg/dL. References updated.
10/20/2020: Testing moved from inhouse test to Mayo.
4/29/2021: Updated reference ranges per Mayo.