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**Lab Dept:** Urine/Stool

**Test Name:** STONE ANALYSIS

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***General Information***

**Lab Order Codes:** SANA

**Synonyms:** Calculus Analysis; Kidney Stone Analysis; Renal Calculi; Urinary Calculi

**CPT Codes:** 82365 – Calculus; qualitative analysis

**Test Includes:** Evaluation of stone composition, quantitative report issued.

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***Logistics***

**Test Indications:** Useful for managing patients with recurrent renal calculi.

**Lab Testing Sections:** Urine/Stool - Sendouts

**Referred to:** Mayo Medical Laboratories (MML Test: CASA)

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

STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 2 - 4 days, test set up Monday – Saturday

**Special Instructions:** If patients are collecting the stone at home, provide them with a stone collection kit. Contact the laboratory to obtain a collection kit.

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***Specimen***

**Specimen Type:** Urinary calculi

**Container:** Urine cup

**Draw Volume:** Submit entire dried urinary calculi specimen

**Processed Volume:** Same as Draw Volume

**Collection:****Hospital Collection:** As per physician order**Patient Collection At-Home Instructions:**

A kit should be provided for this collection (Supply T550).

Your doctor has recommended you catch your stone by filtering your urine. Most stones are small enough to pass out of the body on their own. Each urine collection should be filtered until stone has passed. It's also important to filter your urine during your **first-morning** void, because the stone may have passed to the bladder or urinary tract during the night.

1. Use the filter provided to filter the patient's urine.
2. Check the filter for any particles that may be of stone. The stone may be very small so check carefully. The stone could look like a grain of sand or a small piece of gravel.
3. If a stone is found, place it in the clean, dry container provided.
  - **Do not** tape stone to container as tape will affect testing.
  - **Do not** put any liquid in the container.
  - **Do not** send the filter to the laboratory.
4. Write the source, if known, on sticker of container (ie, left kidney, bladder, right ureter). Your physician may provide this information for you. Place container in bag provided.
5. Keep stone at room temperature.
6. Return the stone to your doctor's office, collection site, or wherever you were instructed to return the specimen.

**Special Processing:**

Lab Staff:

- **Do not** tape the specimen to anything as tape interferes with the analytical procedure.
- **Do not** send the stone in formalin.
- **Do not** send filter.
- If multiple stones are being sent and testing is wanted on each stone, place each stone in its own container. Testing must be ordered on each stone, and each test will be charged separately.
- Send stone as ambient temperature.

Specimen source is required on request form for processing.

**Patient Preparation:**See [Collection](#)**Sample Rejection:**

Specimens other than renal stones

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***Interpretive***

**Reference Range:**

Quantitative report

The composition of urinary calculi stones may vary from a simple crystal to a complex mixture containing several different species of crystals. The composition of the nidus center may be entirely different from that of the peripheral layers.

Eighty percent of patients with kidney stones have a history of recurrent stone formation. Knowledge of stone composition is necessary to guide therapy of patients with recurrent stone formation.

**Critical Values:**

N/A

**Limitations:**

N/A

**Methodology:**

Infrared Spectrum Analysis

**References:**

[Mayo Medical Laboratories](#) March 2018