

Patient:

DOB: Age: Gender:

Patient Identifiers:

Visit Number (FIN):

Client:

Physician:

ARUP Test Code: 2008708

Collection Date:

Received in lab:

Completion Date:

## Specimen Condition

Analyte	Result	Units	Reference Interval	Effect
Hours Collected	24	h	24	Collection for 24 hours reflects daily excretion.
Total Volume	1000	mL	M 800-1800 F 600-1600	Low urine volume (<1L/24h) promotes calculi formation.
pH	6.31		5.00-7.50	Acidic urine (pH<5.5) promotes precipitation of uric acid. Alkaline urine (pH>7.2) promotes formation of CaHPO <sub>4</sub> stones.
Creatinine	1830	mg/d	1000-2500	Excretion provides a measure of completeness of 24h urine collection.

## Stone Formation Promoters

Analyte	Result	Units	Reference Interval	Effect
Calcium <sup>1</sup>	134	mg/d	100-250	Hypercalciuria (>200 mg/d) promotes formation of CaOx and CaHPO <sub>4</sub> stones.
Oxalate	26	mg/d	16-49	Hyperoxaluria (>40 mg/d) promotes formation of CaOx stones.
Phosphorus	950	mg/d	400-1300	Phosphorus forms insoluble complexes with calcium.
Sodium	165	mmol/d	51-286	Increased sodium promotes formation of CaOx and CaHPO <sub>4</sub> stones.
Uric Acid	513	mg/d	250-750	Hyperuricosuria (>600 mg/d) promotes formation of uric acid stones.

## Stone Formation Inhibitors

Analyte	Result	Units	Reference Interval	Effect
Citric Acid	336	mg/d	320-1240	High citrate inhibits formation of CaOx and CaHPO <sub>4</sub> stones.
Magnesium	105	mg/d	12-199	High magnesium inhibits formation of CaOx and CaHPO <sub>4</sub> stones.

## Other Components

Analyte	Result	Units	Reference Interval	Effect
Potassium	47	mmol/d	25-125	Potassium forms soluble complexes.
Chloride	149	mmol/d	140-250	Chloride forms soluble complexes.

<sup>1</sup>Average calcium diet (about 800 mg/d).

Access complete set of age- and/or gender-specific reference intervals for this test in the ARUP Laboratory Test Directory ([aruplab.com](http://aruplab.com)).

## Patient Historical Result Summary

No historical data found.

## Interpretive Information



Patient:

ARUP Accession: 21-299-402637

# Calculi Risk Assessment, Urine

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Patient: | Date of Birth: | Gender: | Physician:  
Patient Identifiers: | Visit Number (FIN):

Development of renal calculi is related to increased urine concentrations of stone-forming substances such as calcium, oxalate, urate, cystine, and xanthine. Low urine volume enhances calculus formation. High concentrations of citrate and magnesium in the urine decrease the probability of stone formation.

This profile does not include testing for magnesium ammonium phosphate (struvite) or cystine calculi. If struvite stones associated with bacterial urinary tract infection are suspected, urinalysis and urine culture are recommended. If cystine calculi are suspected (calculi formation in relatively young individuals or family history of cystinuria), order Cystine Quantitative, Urine (ARUP test #0081106).

This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the U.S. Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.



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