

# Patient Results Report

PATIENT

**Getsay, Tyler**

MRN:

DATE OF BIRTH

**09/20/1995**

GENDER


**M**

PHYSICIAN

**Dalton, Katharine**

Katharine Dalton NP  
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Department of Urology  
222 Piedmont Avenue  
Suite 7000  
Cincinnati, OH 45219

## Current Test Overview

SAMPLE ID	RESULTS TURNAROUND (IN DAYS)	PATIENT COLLECTION DATE	LAB RECEIPT DATE	DATE COMPLETED	SAMPLE BARCODE
<b>S23913141</b>	<b>4</b>	<b>02/10/2017</b>	<b>02/11/2017</b>	<b>02/14/2017</b>	 S23913141_21350419

## Medical Director's Notes

Laboratory test values flagged with an asterisk (\*) within this report refer to the following commentary from our physicians and quality assurance staff. Please feel free to call us at 800 338 4333 with questions you may have regarding this information.

SAMPLE ID	PATIENT COLLECTION DATE	ITEM	RELATED NOTES
<b>S23913141</b>	<b>02/10/2017</b>	<b>24 hr Phosphorus</b>	The urine P result was verified by repeat analysis.

John Asplin, MD  
Medical Director

Litholink's computer generated comments are based upon the patient's most recent laboratory results without taking into account concurrent use of medication or dietary therapy. They are intended solely as a guide for the treating physician. Litholink does not have a doctor-patient relationship with the individuals for whom tests are ordered, nor does it have access to a complete medical history, which is required for both a definitive diagnosis and treatment plan. Cys 24, Cys Capacity, Sulfate, and Citrate were developed and their performance characteristics determined by Litholink Corporation. It has not been cleared or approved by the US Food and Drug Administration.

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Values larger, bolder and more towards red indicate increasing risk for kidney stone formation.

## Summary Stone Risk Factors

SAMPLE ID: **S23913141**PATIENT COLLECTION DATE: **02/10/2017**

ANALYTE	← DECREASED RISK	INCREASING RISK FOR STONE FORMATION →
Urine Volume (liters/day)		● <b>0.89</b>
SS CaOx		● <b>8.73</b>
Urine Calcium (mg/day)	● <b>185</b>	
Urine Oxalate (mg/day)	● <b>15</b>	
Urine Citrate (mg/day)		<b>99</b> ●
SS CaP		<b>3.11</b> ●
24 Hour Urine pH		● <b>6.989</b>
SS Uric Acid	● <b>0.09</b>	
Urine Uric Acid (g/day)	● <b>0.312</b>	

## Interpretation Of Laboratory Results

**Extremely low urine volume.** Sufficient to cause stones as an isolated defect. Consider diarrheal disease, very poor fluid intake or occupational causes. Need to increase urine volume to above 2.5 liters per day.

**Marked hypocitraturia.** Consider treatment with potassium citrate 20 to 60 meq per day in 2 to 3 doses. If pH is above 6.3 monitor SS CaP, hypercalciuria may need to be treated to avoid CaP stones. Hypokalemia can cause hypocitraturia.

**High urine pH.** High urine pH can promote calcium phosphate stones. When coupled with low urine citrate consider distal renal tubular acidosis. When using alkali supplements (citrate or bicarbonate) manage urine volume and urine calcium to maintain SS CaP less than 2.0.

**Moderate CaOx stone risk.** If stones are calcium oxalate and actively forming, manage urine volume, calcium and oxalate to lower SS below 4.

**High CaP stone risk.** If stones contain >15% calcium phosphate and are actively forming, manage volume and calcium to lower SS below 1.2.

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## Stone Risk Factors / Cystine Screening: Negative (02/13/2017)

DATE	SAMPLE ID	Vol 24	SS CaOx	Ca 24	Ox 24	Cit 24	SS CaP	pH	SS UA	UA 24
02/10/17	S23913141	<b>0.89</b>	<b>8.73</b>	185	15	<b>99</b>	<b>3.11</b>	<b>6.989</b>	0.09	0.312
REFERENCE RANGE		0.5 - 4L	6 - 10	male <250 female <200	20 - 40	male >450 female >550	0.5 - 2	5.8 - 6.2	0 - 1	male <0.800 female <0.750

## Dietary Factors

DATE	SAMPLE ID	Na 24	K 24	Mg 24	P 24	Nh4 24	Cl 24	Sul 24	UUN 24	PCR
02/10/17	S23913141	68	<b>14</b>	85	<b>0.220*</b>	14	73	7	3.56	<b>0.6</b>
REFERENCE RANGE		50 - 150	20 - 100	30 - 120	0.6 - 1.2	15 - 60	70 - 250	20 - 80	6 - 14	0.8 - 1.4

## Normalized Values

DATE	SAMPLE ID	WEIGHT	Cr 24	Cr 24/Kg	Ca 24/Kg	Ca 24/Cr 24
02/10/17	S23913141	54.4	<b>1185</b>	<b>21.8</b>	<b>3.4</b>	<b>156</b>
REFERENCE RANGE			male 18-24 female 15-20	<4	<4	<140

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## Clinical Report

The clinical information shown below was obtained directly from your patient during our telephone interview, and, where possible, from medical records forwarded from your office.

### Dietary History

START

STOP

### Medication History

DRUG (DOSE/DAY)

START

STOP

### Related Diseases

DIAGNOSED



= Before Treatment



= After Treatment

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## Stone Risk Factors / Cystine Screening

ABBR.	ANALYTE	REFERENCE RANGE	COMMENTS
<b>Vol 24</b>	Urine Volume	0.5 - 4	L/d; Raise vol to at least 2L .
<b>SS CaOx</b>	Supersaturation CaOx	6 - 10	Raise urine vol and cit, lower ox and ca.
<b>Ca 24</b>	Urine Calcium	male <250, female <200	idiopathic hypercalciuria, consider hydrochlorothiazide 25 mg bid or chlorthalidone 12.5 - 25 mg qam, urine Na <100.
<b>Ox 24</b>	Urine Oxalate	20 - 40	usually dietary; if enteric, consider cholestyramine, oral calcium 1-2 gm with meals; if >80, may be primary hyperoxaluria.
<b>Cit 24</b>	Urine Citrate	male >450, female >550	consider K citrate 20 - 30 mEq BID; if from RTA (urine pH > 6.5) also use K citrate.
<b>SS CaP</b>	Supersaturation CaP	0.5 - 2	Urine usually pH > 6.5, idiopathic hypercalciuria common.
<b>pH</b>	24 Hour Urine pH	5.8 - 6.2	<5.8 consider K or Na citrate 25-30 mEq BID; 6.5, RTA if citrate is low; >8, urea splitting infection.
<b>SS UA</b>	Supersaturation Uric Acid	0 - 1	Urine pH <6, creates UA stones. Treated with alkali.
<b>UA 24</b>	Urine Uric Acid	male <0.800, female <0.750;	g/d; dietary; if stones are severe and low protein diet fails try allopurinol 200 mg/d.

\*\* Cystine Screening: positive result may be seen in patients with homozygous cystinuria and cystine stone disease, some individuals heterozygous for cystinuria without cystine stone disease, or in patients taking medications such as captopril or penicillamine.

## Dietary Factors

ABBR.	ANALYTE	REFERENCE RANGE	COMMENTS
<b>Na 24</b>	Urine Sodium	mmol/d; 50 - 150	When high raises urine Ca, and K loss from thiazide; ideal is <100.
<b>K 24</b>	Urine Potassium	mmol/d; 20 - 100	<20, consider bowel disease, diuretics, laxatives.
<b>Mg 24</b>	Urine Magnesium	mg/d; 30 - 120	Low with poor nutrition, some laxatives, malabsorption syndrome.
<b>P 24</b>	Urine Phosphorus	g/d; 0.6 - 1.2	Low in bowel disease, malnutrition, high with large food intake.
<b>Nh4 24</b>	Urine Ammonium	mmol/d; 15 - 60	High + pH>7, urea splitting infection; low + pH <5.5, renal disease, UA stones, Gout.
<b>Cl 24</b>	Urine Chloride	mmol/d; 70 - 250	Varies with sodium and potassium intake.
<b>Sul 24</b>	Urine Sulfate	meq/d; 20 - 80	When high shows high protein diet.
<b>UUN 24</b>	Urine Urea Nitrogen	g/d; 6 - 14	This measures urea production from diet protein.
<b>PCR</b>	Protein Catabolic Rate	g/kg/d; 0.8 - 1.4	This measure protein intake per kg body weight.

## Normalized Values

ABBR.	ANALYTE	COMMENTS
<b>Weight</b>	Body Weight in Kg	Obtained from treating physician or patient.
<b>Cr 24</b>	Urine Creatinine	mg/d; varies with body weight; check for day to day consistency of urine collection.
<b>Cr 24/Kg</b>	Creatinine/Kg	mg/kg/d; male 18 - 24, female 15 - 20; low in obesity, incomplete collections; high with opposite.
<b>Ca 24/Kg</b>	Calcium/Kg	mg/kg/d; <4.00; when high, treated as if mg/d were high (see previous page).
<b>Ca 24/Cr 24</b>	Calcium/Creatinine	mg/g; <140; when high, treated as if mg/d were high (see previous page).