
Reporting Title: Supersaturation, 24 HR, U**Performing Location:** Rochester**Necessary Information:**

1. 24-Hour volume (in milliliters) is required.
2. Patient's height in centimeters and weight in kilograms are required if patient is younger than 18 years.

Specimen Requirements:

Patient Preparation:

X-ray dyes and contrast media will affect uric acid test results.

-If a kidney X-ray with dye or computerized tomography (CT) scan with contrast has been performed, patient should wait a minimum of 1 day before starting collection.

-If a cholangiography (bile duct X-ray) has performed, patient should wait 7 days before starting collection.

-Urine must be collected before tablets have been taken for gallbladder X-ray, otherwise patient should wait 7 days before starting collection.

Supplies: Diazolidinyl Urea (Germall) 5.0 mL (T822)

Collection Container/Tube: 24-hour graduated urine container with no metal cap or glued insert

Submission Container/Tube: Plastic, 60-mL urine bottle

Specimen Volume: 35 mL

Collection Instructions:

1. Add 5 mL of diazolidinyl urea as preservative at start of collection or refrigerate specimen during and after collection.
2. Collect urine for 24 hours.
3. Specimen pH should be between 4.5 and 8 and will stay in this range if diazolidinyl urea is added at the beginning of the collection or kept refrigerated during the entirety of the collection. Specimens with pH above 8 indicate bacterial contamination, and testing will be canceled. Do not attempt to adjust pH as it will adversely affect results.
4. If not using Germall, the specimen must be kept refrigerated during the entirety of the collection and sent frozen.

Additional Information: See Urine Preservatives-Collection and Transportation for 24-Hour Urine Specimens for multiple collections.

Specimen Minimum Volume:

25 mL

Forms:

If not ordering electronically, complete, print, and send a Renal Diagnostics Test Request (T830) with the specimen.

Urine Preservative Collection Options:

Note: The addition of preservative or application of temperature controls must occur at the beginning of the collection.

Ambient (Not preserved) No

Refrigerate (Not preserved) OK

Frozen (Not preserved) No

50% Acetic Acid No

Boric Acid No

Diazolidinyl Urea (Germall) Preferred
6M Hydrochloric Acid No
6M Nitric Acid No
Sodium Carbonate No
Thymol No
Toluene No

Specimen Type	Temperature	Time	Special Container
Urine	Refrigerated (preferred)	14 days	
	Frozen	14 days	
	Ambient	72 hours	

Ask at Order Entry (AOE) Questions:

Test ID	Question ID	Description	Type	Reportable
SSINT	SSVOL	Volume	Plain Text	Yes
SSINT	SSDUR	Collection Duration	Plain Text	Yes
DEMO9	HT6	Height (cm)	Plain Text	Yes
DEMO9	WT6	Weight (kg)	Plain Text	Yes

Result Codes:

Result ID	Reporting Name	Type	Unit	LOINC®
616217	Calcium Oxalate Crystal	Numeric	DG	81623-1
616218	Brushite Crystal	Numeric	DG	101825-8
616219	Hydroxyapatite Crystal	Numeric	DG	81622-3
616220	Uric Acid Crystal	Numeric	DG	101827-4
SSDUR	Collection Duration	Alphanumeric		13362-9
SSVOL	Volume	Alphanumeric		3167-4
21060	Interpretation	Alphanumeric		69051-1
NAU24	Sodium, 24 HR, U Also used by tests: NAUT	Numeric	mmol/24 h	2956-1

Result ID	Reporting Name	Type	Unit	LOINC®
KU24	Potassium, 24 HR, U Also used by tests: KUT	Numeric	mmol/24 h	2829-0
CAU24	Calcium, 24 HR, U Also used by tests: CALUT	Numeric	mg/24 h	6874-2
MGU24	Magnesium, 24 HR, U Also used by tests: MAGT	Numeric	mg/24 h	24447-5
CLU24	Chloride, 24 HR, U Also used by tests: CLUT	Numeric	mmol/24 h	2079-2
POU24	Phosphorus, 24 HR, U Also used by tests: POUT	Numeric	mg/24 h	2779-7
SUL24	Sulfate, 24 HR, U Also used by tests: SULFT	Numeric	mmol/24 h	26889-6
CIT24	Citrate Excretion, 24 HR, U Also used by tests: CITT	Numeric	mg/24 h	6687-8
OXM24	Oxalate, 24 HR, U (mmol/24 HR) Also used by tests: OXUT	Numeric	mmol/24 h	14862-7
OXG24	Oxalate, 24 HR, U (mg/24 HR) Also used by tests: OXUT	Numeric	mg/24 h	2701-1
UPHT	pH, 24 HR, U Also used by tests: UPHT	Numeric		27378-9
URC24	Uric Acid, 24 HR, U Also used by tests: URICT	Numeric	mg/24 h	3087-4
CRU24	Creatinine, 24 HR, U Also used by tests: CTUT	Numeric	mg/24 h	2162-6
UOSMT	Osmolality, 24 HR, U Also used by tests: OSMUT	Numeric	mOsm/kg	2694-8
AMU24	Ammonium, 24 HR, U Also used by tests: AMMT	Numeric	mmol/24 h	25308-8
UNU24	Urea Nitrogen, 24 HR, U	Numeric	g/24 h	3096-5
PCRUT	Protein Catabolic Rate, 24 HR, U	Numeric	g/24 h	93746-6
BSA1	Patient Surface Area	Numeric	1.73m(2)	8277-6

Result ID	Reporting Name	Type	Unit	LOINC®
HT6	Height (cm)	Numeric	cm	3137-7
WT6	Weight (kg)	Numeric	kg	29463-7

LOINC and CPT codes are provided by the performing laboratory.

Supplemental Report:

Supplemental

Components:

Test ID	Reporting Name	CPT Units	CPT Code	Always Performed	Orderable Separately
SSINT	Supersaturation, 24 HR, U 1			Yes	No
NAUT	Sodium, 24 HR, U			Yes	Yes (order NAU)
KUT	Potassium, 24 HR, U			Yes	Yes (order KUR)
CALUT	Calcium, 24 HR, U			Yes	Yes (order CALU)
MAGT	Magnesium, 24 HR, U			Yes	Yes (order MAGU)
CLUT	Chloride, 24 HR, U			Yes	Yes (order CLU)
POUT	Phosphorus, 24 HR, U			Yes	Yes (order POU)
SULFT	Sulfate, 24 HR, U			Yes	Yes (order SULFU)
CITT	Citrate Excretion, 24 HR, U			Yes	Yes (order CITR)
OXUT	Oxalate, 24 HR, U			Yes	Yes (order OXU)
UPHT	pH, 24 HR, U			Yes	Yes (order PHU_)
URICT	Uric Acid, 24 HR, U			Yes	Yes (order URCU)
CTUT	Creatinine, 24 HR, U			Yes	Yes (order URCU)

Test ID	Reporting Name	CPT Units	CPT Code	Always Performed	Orderable Separately
OSMUT	Osmolality, 24 HR, U			Yes	Yes (order UOSMU)
AMMT	Ammonium, 24 HR, U			Yes	Yes (order AMMO)
UNT	Urea Nitrogen, 24 HR, U			Yes	No
PCRUT	Protein Catabolic Rate, 24 HR, U			Yes	No
DEMO9	Patient Demographics			Yes	No

CPT Code Information:

82340-Calcium
 82436-Chloride
 82507-Citrate excretion
 82570-Creatinine
 83735-Magnesium
 83935-Osmolality
 83945-Oxalate
 83986-pH
 84105-Phosphorus
 84133-Potassium
 84300-Sodium
 84392-Sulfate
 84560-Uric acid
 82140-Ammonium
 84540-Urea Nitrogen

Reference Values:

SUPERSATURATION REFERENCE MEANS (Delta G: DG)

Men:

Calcium oxalate: 1.89 DG
 Brushite: 0.46 DG
 Hydroxyapatite: 4.19 DG
 Uric acid: 1.18 DG

Women:

Calcium oxalate: 1.59 DG
 Brushite: -0.11 DG
 Hydroxyapatite: 3.62 DG
 Uric acid: 0.89 DG

INDIVIDUAL URINE ANALYTES

OSMOLALITY, 24 HOUR, URINE

0-11 months: 50-750 mOsm/kg

> or =12 months: 150-1,150 mOsm/kg

pH, 24 HOUR, URINE

4.5-8.0

SODIUM, 24 HOUR, URINE

> or =18 years: 22-328 mmol/24 h

Reference values have not been established for patients who are younger than 18 years of age.

POTASSIUM, 24 HOUR, URINE

> or =18 years: 16-105 mmol/24 h

Reference values have not been established for patients who are younger than 18 years of age.

CALCIUM, 24 HOUR, URINE

Males: <250 mg/24 h

Females: <200 mg/24 h

Reference values have not been established for patients who are younger than 18 years of age.

MAGNESIUM, 24 HOUR, URINE

51-269 mg/24 h

Reference values have not been established for patients who are younger than 18 years of age.

CHLORIDE, 24 HOUR, URINE

> or =18 years: 34-286 mmol/24 h

Reference values have not been established for patients who are younger than 18 years of age.

PHOSPHORUS, 24 HOUR, URINE

> or =18 years: 226-1,797 mg/24 h

Reference values have not been established for patients who are younger than 18 years of age.

SULFATE, 24 HOUR, URINE

7-47 mmol/24 h

CITRATE EXCRETION, 24 HOUR, URINE

0-19 years: Not established

20 years: 150-1,191 mg/24 h

21 years: 157-1,191 mg/24 h

22 years: 164-1,191 mg/24 h

23 years: 171-1,191 mg/24 h

24 years: 178-1,191 mg/24 h

25 years: 186-1,191 mg/24 h

26 years: 193-1,191 mg/24 h

27 years: 200-1,191 mg/24 h

28 years: 207-1,191 mg/24 h

29 years: 214-1,191 mg/24 h

30 years: 221-1,191 mg/24 h

31 years: 228-1,191 mg/24 h

32 years: 235-1,191 mg/24 h

33 years: 242-1,191 mg/24 h
34 years: 250-1,191 mg/24 h
35 years: 257-1,191 mg/24 h
36 years: 264-1,191 mg/24 h
37 years: 271-1,191 mg/24 h
38 years: 278-1,191 mg/24 h
39 years: 285-1,191 mg/24 h
40 years: 292-1,191 mg/24 h
41 years: 299-1,191 mg/24 h
42 years: 306-1,191 mg/24 h
43 years: 314-1,191 mg/24 h
44 years: 321-1,191 mg/24 h
45 years: 328-1,191 mg/24 h
46 years: 335-1,191 mg/24 h
47 years: 342-1,191 mg/24 h
48 years: 349-1,191 mg/24 h
49 years: 356-1,191 mg/24 h
50 years: 363-1,191 mg/24 h
51 years: 370-1,191 mg/24 h
52 years: 378-1,191 mg/24 h
53 years: 385-1,191 mg/24 h
54 years: 392-1,191 mg/24 h
55 years: 399-1,191 mg/24 h
56 years: 406-1,191 mg/24 h
57 years: 413-1,191 mg/24 h
58 years: 420-1,191 mg/24 h
59 years: 427-1,191 mg/24 h
60 years: 434-1,191 mg/24 h
>60 years: Not established

OXALATE, 24 HOUR, URINE

0.11-0.46 mmol/24 h

9.7-40.5 mg/24 h

Reference values have not been established for patients who are younger than 16 years of age.

URIC ACID, 24 HOUR, URINE

Males: > or =18 years: 200-1,000 mg/24 h

Females: > or =18 years: 250-750 mg/24 h

Reference values have not been established for patients who are younger than 18 years of age.

CREATININE, 24 HOUR, URINE

Males: > or =18 years: 930-2,955 mg/24 h

Females: > or =18 years: 603-1,783 mg/24 h

Reference values have not been established for patients who are younger than 18 years of age.

AMMONIUM, 24 HOUR, URINE

15-56 mmol/24 h

Reference values have not been established for patients who are younger than 18 years or older than 77 years of age.

UREA NITROGEN, 24 HOUR, URINE

> or =18 years: 7-42 g/24 h

Reference values have not been established for patients who are younger than 18 years of age.

PROTEIN CATABOLIC RATE, 24 HOUR, URINE
56-125 g/24 h