

24 Hour Urine Collections

The accuracy of the urine tests depends upon the care with which the urine is collected. Please give the patient these instructions:

1. Begin the 24-hour collection period at a convenient time for you.
2. Having selected a starting time, urinate into the toilet. Emptying the bladder completely, and discarding the first specimen. For the next 24 hours, all urine will be collected and transferred into the supplied urine container.
3. During the 24-hour collection period, limit excessive fluid intake.
4. Collect all urine in a smaller container and carefully transfer the specimen into the larger container provided. If there is a preservative in the larger container, take care not to splash the contents as it may be an acid, caustic, or poisonous substance. (Please do not collect urine that has been voided into the toilet).
5. Keep the specimen cool during the collection period.
6. At exactly 24 hours after the start time, collect the last specimen and transfer it into the container.
7. Transport the container to the laboratory... Caution, secure lid tightly, container may leak if tipped over.

For Creatinine and/or Urea Clearances, please include the patient's current height, weight, and the total volume of urine collected in 24 hours. A serum specimen must accompany the 24-hour urine specimen for all clearance testing.

Preservatives for 24hr Urine Collections

Upon request, preservatives can be added to the collection jug by the laboratory before the specimen has been collected. All collection jugs with preservatives must be labeled with the following information:

- a) Type and quantity of preservative added.
- b) Date preservative was added.
- c) Initials of preparer.

Complete all patient information on the label containing collection instructions and attach to the container.

NOTE: **6N HCl CAUTION:** 6N HCl acid added, skin and eye irritant. See Material Safety Data Sheet.

33% acetic acid - CAUTION: 33% acetic acid added, skin and eye irritant. See Material Safety Data Sheet.

Boric Acid - CAUTION: Boric acid added, poisonous. See Material Safety Data Sheet.

Test specific preservatives for Urine collection.

Listed below are 24-hour urine tests and the preservatives required for each. Specific questions about combining 24 hour urine tests or alternative preservatives should be referred to RML's processing department at 744-2500 ext. 15506 or 1-800-722-8077.

Test Name	Order Name	#1 Preservative	Alternate Preservatives	Miscellaneous Notes
ALBUMIN (Microalbumin) 24Hr	ALBUM24U	Refrigeration - Collect urine without preservative.	NONE	Refrigerate during and after collection. Adequate refrigeration is the most important aspect of specimen preservation.
ALDOSTERONE 24hr URINE	ALDOS 24 U	10g BORIC ACID	Refrigeration, 25mL 6N HCL	Maintain pH below 7.5. Sample without preservative is acceptable if kept refrigerated during collection. It is acceptable to add preservative after collection if urine was refrigerated during collection.
AMINOLEVULINIC ACID 24Hr	DELT ALA24	Refrigeration - Collect urine without preservative.	NONE	Refrigerate during and after collection. Wrap container in aluminum foil to protect from light. 24-hour total volume must be provided on the test request form.
CALCIUM (12 OR 24hr URINE)	CALC TM U	Refrigeration - Collect urine without preservative OK.	25mL 6N HCL, 10gm BORIC ACID	Refrigerate during and after collection. It is acceptable to add preservative after collection if urine was refrigerated during collection.
CATECHOLAMINE FRACTIONS Random or 24hr URINE	CAT FRAC U	Refrigeration - Collect urine without preservative OK.	25mL 6N HCL	Refrigerate during and after collection. Urine without preservative is acceptable if pH is below 6 and the sample is shipped frozen.
CHLORDIE URINE TIMED	CHLOR TM U	Refrigeration - Collect urine without preservative.	NONE	Refrigerate during and after collection. Do not include first morning specimen; collect all subsequent voidings.
CITRATE 24hr URINE	CITRIC U	Refrigeration - Collect urine without preservative.	NONE	Refrigerate during and after collection. Do not include first morning specimen; collect all subsequent voidings. Adjust pH to
COPPER 24hr URINE	COPPER 24	Use "Acid Washed" 24hr Urine Jug for Heavy Metal Collections.	NONE	Do not aliquot unless you have "Acid Washed" pour off tubes for use with Heavy Metals.
CORTISOL FREE Random or 24hr URINE	CORT FR U	Refrigeration - Collect urine without preservative.	NONE	Refrigerate during and after collection. Adequate refrigeration is the most important aspect of specimen preservation.

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Test Name	Order Name	#1 Preservative	Alternate Preservatives	Miscellaneous Notes
CREATININE CLEARANCE	CREA CL UR	Refrigeration - Collect urine without preservative OK.	25mL 6N HCL, 10gm BORIC ACID, 5gm Sodium Carb	Refrigerate during and after collection. Adequate refrigeration is the most important aspect of specimen preservation.
HEAVY METAL SCREEN Random or 24hr URINE	METAL S U	Use "Acid Washed" 24hr Urine Jug for Heavy Metal Collections.	NONE	Do not aliquot to pour off tubes. Send entire jug.
HISTAMINE 24hr URINE	HISTAMI U	Refrigeration - 25mL 6N HCL Avoid direct sunlight.	NONE	Refrigerate during and after collection. Avoid direct sunlight. Avoid taking allergy causing drugs, antihistamines, oral corticosteroids and substances which block H2 receptors 24 hours prior to collection. Patient should refrain from taking allergy causing drugs, antihistamines, oral corticosteroids, and substances which block H2 receptors for at least 24 hours prior to specimen collection.
17 HYDROXYCORTICOSTEROIDS	HYDRXY 17	10gm BORIC ACID	25mL 6N HCL, 25mL 50% Acetic Acid	Refrigerate during and after collection.
17 KETOSTEROIDS 24 URINE	KETOSTER17	10gm BORIC ACID	25mL 6N HCL, 25mL 50% Acetic Acid	Refrigerate during and after collection.
METANEPHRINES URINE Random or 24hr	METANEPH U	Refrigeration - Collect urine without preservative OK.	25mL 6N HCL	Refrigerate during and after collection. After urine collection, add 25 mL of 6N HCL. Stability is enhanced at pH 2-3. A pH lower than 2 may cause assay interference.
OXALATE Random or 24hr URINE	OXALATE U	Refrigeration - Collect urine without preservative OK.	NONE	Refrigerate during and after collection. Adjust pH to 1.5-3 with 6N HCL or ARUP Tube w/20mg Sulfamic Acid after collection is complete. IF ACID IS NOT ADDED, aliquot 4mL of well-mixed urine in a pour off container & FREEZE IMMEDIATELY.
PHOSPHORUS 24hr URINE	PHOS TM U	Refrigeration - Collect urine with 20-30mL HCL	NONE	Refrigerate during and after collection. Adequate refrigeration is the most important aspect of stability. Collect with 20-30mL HCL to avoid precipitation of phosphate complexes.
PORPHYRINS QUANTITATIVE Random or 24hr URINE	PORPH 24 U	Refrigeration - Collect urine without preservative. Avoid direct sunlight.	NONE	Refrigerate during and after collection. Adequate refrigeration is the most important aspect of specimen preservation. Avoid direct sunlight. Wrap container in aluminum foil to protect from light.
POTASSIUM 24hr URINE	POTAS TM U	Refrigeration - Collect urine without preservative.	NONE	Refrigerate during and after collection. Adequate refrigeration is the most important aspect of specimen preservation.
SEROTONIN 5HIAA QUANTITATIVE Random or 24hr URINE	SEROTON U	Refrigeration - Collect urine without preservative OK.	25mL 6N HCL	Refrigerate during and after collection. After urine collection, add 25 mL of 6N HCL to maintain a pH 2-3. A pH lower than 2 may cause assay interference. Patient should avoid food high in indoles: avocado, banana, tomato, plum, walnut, pineapple, and eggplant. Patient should also avoid tobacco, tea and coffee three days prior to specimen collection.
SODIUM 24hr URINE	SODIUM TMU	Refrigeration - Collect urine without preservative.	NONE	Refrigerate during and after collection. Adequate refrigeration is the most important aspect of specimen preservation.
PROTEIN 24hr URINE	PROT TM U	Refrigeration - Collect urine without preservative.	NONE	Refrigerate during and after collection. Adequate refrigeration is the most important aspect of specimen preservation.
UREA CLEARANCE 24hr URINE	UREA CL UR	Refrigeration - Collect urine without preservative.	NONE	Refrigerate during and after collection. Must have Serum BUN drawn during collection.
URIC ACID 24hr URINE	URIC TM U	Refrigeration - Collect urine without preservative.	NONE	Refrigerate during and after collection. Adequate refrigeration is the most important aspect of specimen preservation.
VMA Random or 24hr URINE (Vanillylmandelic Acid)	VMA	Refrigeration - Collect urine without preservative OK.	25mL 6N HCL	Refrigerate during and after collection. After collection adjust pH to less than 3.0 using 6N HCL. Urine without preservative is acceptable if pH is below 6 and the sample is shipped frozen. A pH lower than 2 may cause assay interference.