

MEDICAL ENCYCLOPEDIA: CREATININE - URINE

Alternative names

Urine creatinine test

Definition

Creatinine is a breakdown product of creatine, which is an important part of muscle. Creatinine is removed from the body entirely by the kidneys. A test can be done that measures the amount creatinine in your urine.

A blood test can also be used to determine your creatinine level.

How the test is performed

A random urine sample or 24-hour collection may used.

If a 24-hour urine sample is needed:

On day 1, urinate into the toilet when you get up in the morning.

Afterwards, collect all urine in a special container for the next 24 hours.

On day 2, urinate into the container when you get up in the morning.

Cap the container. Keep it in the refrigerator or a cool place during the collection period.

Label the container with your name, the date, the time of completion, and return it as instructed.

For an infant, thoroughly wash the area around the urethra. Open a urine collection bag (a plastic bag with an adhesive paper on one end), and place it on the infant. For males, place the entire penis in the bag and attach the adhesive to the skin. For females, place the bag over the labia. Diaper as usual over the secured bag.

This procedure may take a couple of attempts -- lively infants can move the bag, causing the urine to be absorbed by the diaper. Check the infant frequently and change the bag after the infant has urinated into it. Drain the urine from the bag into the container provided by your health care provider. Deliver it to the laboratory or your health care provider as soon as possible upon completion.

How to prepare for the test

No special preparation is necessary, but if the sample is being taken from an infant, a couple of extra collection bags may be necessary.

Your health care provider may tell you to temporarily stop taking certain medicines that may interfere with test results. Such medicines include:

- Cephalosporins (cefoxitin)
- Cimetidine
- Cisplatin
- Gentamicin

How the test will feel

The test involves only normal urination, and there is no discomfort.

Why the test is performed

This test can be used as a screening test to evaluate kidney function. It may also be used part of the creatinine clearance test.

Normal Values

Urine creatine (24-hour sample) values can range from 500 to 2000 mg/day. Results are highly dependent on your age and amount of lean body mass.

Note: Normal value ranges may vary slightly among different laboratories. Talk to your doctor about the meaning of your specific test results.

What abnormal results mean

Abnormal results of urine creatinine and creatinine clearance are often non-specific, but may be due to any of the following conditions:

- Glomerulonephritis
- High meat diet
- Kidney failure
- Muscular dystrophy (late stage)
- Myasthenia gravis
- Prerenal azotemia
- Pyelonephritis
- Reduced kidney blood flow (as in shock or congestive heart failure)
- Rhabdomyolysis
- Urinary tract obstruction

What the risks are

There are essentially no risks.

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