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Creatinine Test for Kidney Function: Preparation, Results and What They Mean

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Your kidneys play a vital role in keeping your body healthy without you even noticing



A serum creatinine test is a quick and reliable way to see how well they're doing their job. By measuring creatinine, a natural waste product in the blood, the test provides important information about kidney function and overall health. Here is everything you need to know to prepare for the test and understand your results.

What Is A Creatinine Serum Test

Creatinine is a waste product generated when muscles break down creatine, a compound that provide energy during physical activity. It released into the bloodstream at a steady rate, and the kidneys normally filter it out in urine. When kidney function impaired, less creatinine leaves the body, and as a results its level rises in the blood.

The **serum creatinine test** measures creatinine concentration in a blood sample. It is one of the most widely used markers of kidney filtration and is included in almost every kidney function panel. The result also calculate the estimated glomerular filtration rate (eGFR), which provides accurate picture of kidney performance.

Why it matters for kidney function

Creatinine levels reflect how well the kidneys are filtering waste from the blood. Because kidney damage often shows no early symptoms, a rising creatinine value can be the first clue to an impaired kidney function. Doctors commonly recommend this test for several specific reasons seen in everyday clinical practice.

- Routine health screening, particularly over 40 years of age.
- Monitoring individuals with diabetes, high blood pressure or cardiovascular disease.
- Investigating symptoms such as swelling, fatigue, foamy urine, or changes in urine output.
- Pre-surgical assessment to check kidney safety before anaesthesia.
- Before starting medications that affect the kidneys or need dose adjustment.
- Follow-up for known chronic kidney disease.

Repeat testing over time reveals more information than a single reading. For patients with chronic conditions, this trend is often more clinically valuable than any individual value.

Preparing for the test

The test requires minimal preparation, but a few steps can ensure accuracy and precision. Sharing the following information with the laboratory or treating doctor helps make the result easier to interpret.

- No fasting is usually required unless lipid or glucose tests are being done at the same time.
- Avoid strenuous physical activity for 24 hours before the test, as heavy exercise can temporarily raise creatinine.
- Avoid excessive protein-rich meals or protein supplements on the day before testing.
- Mention all current medications, including over-the-counter painkillers and herbal supplements.
- Share any medical history of muscle disorders or recent muscle injury.
- Stay well hydrated, as dehydration can temporarily push creatinine levels higher.

Patients on specific kidney medications should follow the doctor's advice on dosing before the test. Providing complete medical records and history to the laboratory ensure more accurate interpretation in proper clinical context.

Normal reference range

Lupin Diagnostics reports a single reference range for serum creatinine on its kidney function panel.

Parameter	Reference range
Serum creatinine	0.6–1.2 mg/dL

Values above the reference range suggest reduced kidney filtration and often necessitate prompt further investigation. A single mildly raised reading does not always indicate kidney disease, particularly in people with high muscle mass. Interpretation should always be done by a qualified medical professional in the context of eGFR, urine tests to conclude a comprehensive understanding of kidney function.

What high and low results mean

A raised serum creatinine can have resulted from several conditions, ranging from acute and chronic kidney disorder. Doctors interpret the value alongside eGFR, urine tests and clinical assessment before reaching conclusions. The following are the most common causes seen in clinical practice.

- Chronic kidney disease (CKD), the most frequent cause of a slowly rising creatinine.
- Acute kidney injury from infection, dehydration or certain medications.
- Diabetic nephropathy developing from long-standing diabetes.
- Hypertensive kidney disease developing from uncontrolled high blood pressure.
- Urinary tract obstruction such as kidney stones or an enlarged prostate.
- Severe muscle injury or breakdown.
- Reaction to certain painkillers, antibiotics or imaging contrast.

Low serum creatinine is uncommon and rarely indicates a kidney problem. It may be seen in people with very low muscle mass, long-standing illness or advanced liver disease.

Choosing a reliable laboratory for your creatinine test

Accurate serum creatinine measurement depends on proper sample collection, careful handling, and consistent laboratory quality standards. Even minor variations in sample handling can shift the reading and impact clinical interpretation. Lupin Diagnostics offers serum creatinine and broader kidney function panels across India through its National Accreditation Board for Testing and Calibration Laboratories (NABL) accredited labs, with free home sample collection available in major cities.

The bottom line

The serum creatinine test provides a simple, reliable, and widely used measure of kidney filtration, making it one of the most valuable tools for assessing and monitoring kidney health. Regular testing supports early detection and better management of chronic conditions. For a creatinine serum test or a complete kidney function panel, you can book a slot at lupindiagnostics.com or call 7030 300 400.