

# Creatinine, Serum

**CPT Code:** 82565

**Order Code:** C108

**ABN Requirement:** No

**Specimen:** Serum

**Volume:** 1.0 mL

**Minimum Volume:** 0.5 mL

**Container:** Gel-barrier tube (SST, Tiger Top)

## Collection:

1. Collect and label sample according to standard protocols.
2. Gently invert tube 5 times immediately after draw. DO NOT SHAKE.
3. Allow blood to clot 30 minutes.
4. Centrifuge for 10 minutes.

**Transport:** Store serum at 2°C to 8°C after collection and ship the same day per packaging instructions included with the provided shipping box.

## Stability:

**Ambient (15-25°C):** 7 days

**Refrigerated (2-8°C):** 7 days

**Frozen (-20°C):** 3 months

**Causes for Rejection:** Specimens other than serum; improper labeling; samples not stored properly; samples older than stability limits

**Methodology:** Photometric

**Turn Around Time:** 1 to 3 days

**Reference Range:**

**Creatinine, Serum**

<b>eGFR</b>	$\geq 60$ mL/min/1.73m <sup>2</sup>
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*The eGFR is based on the CKD-EPI 2021 equation. To calculate the new eGFR*

from a previous Creatinine or Cystatin C result, go to <https://www.kidney.org/professionals/kdogi/gfr%5Fcalculator>.

**Priority Value:**

Test	Age	Priority 2 Value mg/dL
<b>Creatinine, Serum</b>	All Ages	≥8.00

**Clinical Significance:** Serum creatinine is useful in the evaluation of kidney function and in monitoring renal dialysis. A serum creatinine result within the reference range does not rule out renal function impairment: serum creatinine is not sensitive to early renal damage since it varies with age and gender. The impact of these variables can be reduced by an estimation of the glomerular filtration rate using an equation that includes serum creatinine, age, and gender.

**Limitations:** Rifampicin, levodopa, and calcium dobesilate cause artificially low creatinine results. N-ethylglycine at therapeutic concentrations and DL-proline at concentrations  $\geq 1$  mmol/L gives false high results. Dicyclic (Etamsylate) at therapeutic concentrations may lead to falsely low results. Hemolyzed samples that contain HbF values  $\geq 600$  mg/dL interfere with the test. Phenindione (2-Phenyl-1, 3-indandione) at therapeutic concentrations interferes with the assay. In very rare cases gammopathy may cause unreliable results. Estimation of the glomerular filtration rate (GFR) on the basis of the Schwartz formula can lead to an overestimation. In very rare cases, gammopathy, in particular type IgM (Waldenstrom's macroglobulinemia), may cause unreliable results.

Acetaminophen intoxications are frequently treated with N-Acetylcysteine. N-Acetylcysteine at a plasma concentration above 333 mg/L and the Acetaminophen metabolite N-acetyl-p-benzoquinone imine (NAPQI) independently may cause falsely low results.

Venipuncture should be performed prior to the administration of Metamizole. Venipuncture immediately after or during the administration of Metamizole may lead to falsely low results. A significant interference may occur at any plasma Metamizole concentration.

*The CPT codes provided are based on AMA guidelines and are for informational purposes only. CPT coding is the sole responsibility of the billing party. Please*

*direct any questions regarding coding to the payer being billed.*