



# Creatinine

Accredited to  
ISO 15189:2022

## Synonyms

None

## Clinical Indication

Creatinine is used as a test of renal function, to monitor the progression and treatment in acute kidney injury (AKI) and chronic kidney disease (CKD). Creatinine is used together with age, sex, and race to calculate eGFR.

## Part of Profile / See Also

Urea and Electrolytes

## Request Form

Combined Pathology manual Blood form or ICE request

## Availability / Frequency of Analysis

On request.

## Turnaround Time

Same day

## Patient Preparation

Patients are advised to avoid eating any meat in the 12 hours before having a blood test for eGFR (creatinine).

## Sample Requirements

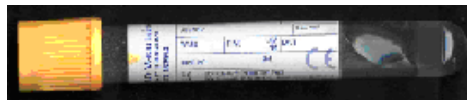
### Specimen Type

Serum and plasma

### Volume

2 ml

### Acceptable Containers



Yellow top (SST) tube



Green top (lithium-heparin) tube



paediatric green top (lithium-heparin)

Plain serum samples may also be used.

**Reference Range & Units**

Sex	Age	Reference range (umol/L)	Reference
Male/Female	15 days	25-73	Locally derived
	2 years	15-36	
	5 years	18-41	
	9 years	26-55	
	12 years	29-64	
	14 years	21-65	
	15 years	38-82	
Male	19 years	51-102	Back calculated from eGFR
	28 years	59 - 135	
	40 years	59 - 124	
	54 years	59 - 117	
	67 years	59 - 111	
	79 years	59 - 107	
	88 years	59 - 104	
	150 years	59 - 104	
Female	19 years	46-82	Back calculated from eGFR
	29 years	45 - 104	
	43 years	45 - 95	
	56 years	45 - 89	
	65 years	45 - 85	
	78 years	45 - 83	
	86 years	45 - 80	
	150 years	45 - 78	

**Interferences**

Patients will have a falsely low creatinine if there is paracetamol and the metabolite N-acetyl-p-benzoquinone imine (NAPQI) in their blood stream. Falsely low creatinine results may also occur if the patient is treated for paracetamol overdose with NAC (N-acetylcysteine), or metamizole (Novaminsulfone, Dipyron) and the metabolites 4-aminoantipyrine (4-AAP) and 4-Methylamino-antipyrine (4-MAP) are still in their bloodstream.

**Interpretation & Clinical**
**Decision Value (if applicable)**

Critical Difference 22%

The wide reference interval for [creatinine] and its inverse correlation to glomerular filtration rate (GFR) results in its being an insensitive test for detecting early or relatively mild renal impairment in isolation.

The estimated GFR is used to define CKD.

Comparing the current creatinine result with the baseline creatinine for an individual should be used to assess for Acute kidney injury (AKI).

**References**

Beckman kit insert

NICE Clinical guideline [CG182] Chronic kidney disease in adults: assessment and management (2014)

NICE Clinical guideline (CG169) Acute kidney injury: prevention, detection and management (2017)

**Test code**

UE

**Lab Handling**

Analysed from primary tube and stored at 4°C  
 Serum and plasma stable for 7 days at 2-8°C

