### Creatinine Clearance

<table>
<thead>
<tr>
<th></th>
<th>RESULT / UNIT</th>
<th>REFERENCE INTERVAL</th>
<th>-2SD</th>
<th>-1SD</th>
<th>MEAN</th>
<th>+1SD</th>
<th>+2SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creatinine Clearance</td>
<td>118 mL/min</td>
<td>75– 120</td>
<td></td>
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<tr>
<td>Urine Creatinine</td>
<td>1300 mg/time</td>
<td>600– 1900</td>
<td></td>
<td></td>
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<tr>
<td>Serum Creatinine</td>
<td>0.77 mg/dL</td>
<td>0.6– 1.3</td>
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</tbody>
</table>

### INFORMATION

Creatinine Clearance is the most widely used test for estimating glomerular filtration rate (GFR). Creatinine, a breakdown product of muscle creatine, is present in relatively stable levels in serum. It is filtered by the glomeruli and not reabsorbed by the tubules. Changes in renal function are reflected in levels of serum urea and creatinine.

It is not uncommon for elderly patients, and those with heavy metal toxicity to have mild to moderate impairment of renal function. Renal disease is asymptomatic in most cases until late in its clinical course. Safe chelation therapy is highly dependent upon the adequacy of renal function. Excessive mobilization of toxic metals to poorly functioning kidneys may result in renal complications. It is advised that creatinine clearance be monitored prior to and throughout chelation therapy.

**Interpretive guidelines:**

- 100 mL/min or higher usually indicates normal renal function.
- 50 mL/min or below is indicative of impaired kidney function.
- 30 mL/min or below is indicative of symptomatic renal failure.

Exercise may cause increased clearance. Inaccurate results may be caused by failure to accurately follow the specimen collection instructions.

The calculation for corrected creatinine clearance in mL/min:

\[
\text{Urine volume per minute} \times \text{urine creatinine} \div \text{Serum creatinine} \times 1.73/\text{body surface area}
\]

**References:**


### SPECIMEN DATA

**Comments:**

- **Date Collected:** 11/27/2011
- **Height:** 0 in
- **Collection Period:** 24 hours
- **Date Received:** 12/1/2011
- **Weight:** 0 lbs
- **Volume:** 900 ml
- **Date Completed:** 12/5/2011
- **Body Surface Area:** 1.73
- **Methodology:** Automated Jaffe