**Lab Dept:** Chemistry  
**Test Name:** CREATINE KINASE

### General Information

**Lab Order Codes:** CPK  
**Synonyms:** CK; Creatine Phosphokinase; CPK  
**CPT Codes:** 82550 – Creatine kinase (CK), (CPK), total  
**Test Includes:** Creatine Kinase concentration reported in U/L.

### Logistics

**Test Indications:** Creatine kinase activity is useful in evaluating diseases of the heart, skeletal muscle, and brain.  
**Lab Testing Sections:** Chemistry  
**Phone Numbers:**  
- MIN Lab: 612-813-6280  
- STP Lab: 651-220-6550

**Test Availability:** Daily, 24 hours

**Turnaround Time:** 2 hours

**Special Instructions:** N/A

### Specimen

**Specimen Type:** Blood  
**Container:** Green top (Li Heparin) tube preferred  
Alternate tube: SST (Red, marble or gold top tube)  
**Draw Volume:** 0.6 mL blood

**Processed Volume:** 0.2 mL serum/plasma

**Collection:** Routine venipuncture. Mix tubes containing anticoagulant by gentle inversion.

**Special Processing:** Lab Staff: Centrifuge specimen, remove serum/plasma aliquot into plastic sample cup. Analyze sample immediately or store at refrigerated temperatures.
Patient Preparation: None

Sample Rejection: Mislabeled or unlabeled specimen

Interpretive

Reference Range:

<table>
<thead>
<tr>
<th>Age</th>
<th>Female Range (U/L)</th>
<th>Male Range (U/L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – 12 years</td>
<td>68 - 293</td>
<td>68 - 293</td>
</tr>
<tr>
<td>13 – 18 years</td>
<td>48 - 200</td>
<td>80 - 354</td>
</tr>
<tr>
<td>Adult</td>
<td>29 - 168</td>
<td>30 - 200</td>
</tr>
</tbody>
</table>

Critical Values: >4000 U/L

Limitations: Moderate or severely hemolyzed specimens can liberate adenylate kinase, ATP, and G-6-P which may affect the lag phase and side reactions of the CK assay system.

Methodology: NAC (N-acetyl-L-cysteine)

References:

Abbott Alinity c Creatine Kinase Reagent Kit Instructions for Use, Abbott Laboratories Diagnostics Division, Abbott Park, IL, 60064, USA. February 2018

Bio-Rad Liquichek Multiqual 1,2,3 Unassayed Chemistry Control Package Insert, Bio-Rad Laboratories, Irvine, CA, 92618, USA

CALIPER Reference Range Study, accessed October 27, 2020

Updates:
12/22/2011: Turnaround time updated, previously listed as 4 hours.
2/8/2016: Update alt tube types.
7/8/2016: Updated limitations.
12/8/2020: Updated for method Abbott Alinity, removed method Siemens Vista