Lab Dept: Chemistry

Test Name: CERULOPLASMIN

**General Information**

Lab Order Codes: CERP

Synonyms: Copper Oxidase; Ferroxidase; Kayser-Fleischer Ring; Wilson’s Disease

CPT Codes: 82390 - Ceruloplasmin

Test Includes: Ceruloplasmin level reported in mg/dL.

**Logistics**

Test Indications: Investigation of patients with possible Wilson's disease.

Lab Testing Sections: Chemistry - Sendouts

Referred to: Mayo Medical Laboratories (MML Test: CERS)

Phone Numbers:
- MIN Lab: 612-813-6280
- STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 1 - 3 days, test set up Monday - Saturday

Special Instructions: See Patient Preparation

**Specimen**

Specimen Type: Blood

Container: SST (Marble, gold or red top tube)

Draw Volume: 3 mL (Minimum: 1.5 mL) blood

Processed Volume: 1 mL (Minimum: 0.5 mL) serum

Note: Submission of the minimum volume will not allow for repeat analysis and could result in a QNS (quantity not sufficient) result.

Collection: Routine venipuncture
**Special Processing:**
Lab Staff: Centrifuge specimen, remove serum aliquot into a screw-capped round bottom plastic vial. Store and ship at refrigerated temperatures. Forward promptly.

**Patient Preparation:**
Fasting patient (4 hours) is recommended. Non-fasting specimens will be run if submitted.

**Sample Rejection:**
Gross hemolysis; gross lipemia; grossly icteric; mislabeled or unlabeled specimens

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<thead>
<tr>
<th>Interpretive</th>
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<tbody>
<tr>
<td>Reference Range:</td>
</tr>
<tr>
<td><strong>Age:</strong></td>
</tr>
<tr>
<td>0 – 8 weeks</td>
</tr>
<tr>
<td>2 – 5 months</td>
</tr>
<tr>
<td>6 – 11 months</td>
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<tr>
<td>12 months – 7 years</td>
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<tr>
<td>8 – 13 years</td>
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<tr>
<td>14 – 17 years</td>
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<td>&gt; or = 18 years</td>
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**Critical Values:**
N/A

**Limitations:**
Ceruloplasmin is a positive acute-phase reactant; therefore levels are elevated in cases of inflammation (as in chronic hepatitis or active infection). Consequently, ceruloplasmin levels are not always extremely low in patients with Wilson’s disease.

Birth control pills and pregnancy increase ceruloplasmin levels.

**Methodology:**
Nephelometric Assay

**References:**
[Mayo Medical Laboratories Web Page](https://mayo.medanalytics.com) September 2017
Updates:  
9/23/2008: Reference range changes due to method change from colorimetric to immunoturbimetric.  
11/22/2010: Reference range update due to restandardization of the assay by the kit manufacturer.  
1/9/2012: Specimen storage temperature changed from frozen to refrigerated.  
8/3/2016: Updated tube type.  
9/21/2017: Updated method and reference ranges.