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**Lab Dept:** Chemistry

**Test Name:** CERULOPLASMIN

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***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.

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***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](#)

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***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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### ***Interpretive***

**Reference Range:**

<b>Age:</b>	<b>Males:</b>	<b>Females:</b>
0 – 8 weeks	7.4 – 23.7 mg/dL	7.4 – 23.7 mg/dL
2 – 5 months	13.5 – 32.9 mg/dL	13.5 – 32.9 mg/dL
6 – 11 months	13.7 – 38.9 mg/dL	13.7 – 38.9 mg/dL
12 months – 7 years	21.7 – 43.3 mg/dL	21.7 – 43.3 mg/dL
8 – 13 years	20.5 – 40.2 mg/dL	20.5 – 40.2 mg/dL
14 – 17 years	17.0 – 34.8 mg/dL	20.8 – 43.2 mg/dL
> or = 18 years	19.0 – 31.0 mg/dL	20.0 – 51.0 mg/dL

**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](#) September 2017

**Updates:**

9/23/2008: Reference range changes due to method change from colorimetric to immunoturbidimetric.

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.