

Patient Name : Demo Patient Name  
Age / Sex : 56 Y / F  
Referred By : DEMO HOSPITAL  
Centre : HOD Head Office

Lab No : Demo Visit No  
Registration On : 21-Jan-25 09:15  
Patient ID : UHID.DEMO.001

| Ceruloplasmin              |        |                               |                              | Serum Sample                 |
|----------------------------|--------|-------------------------------|------------------------------|------------------------------|
| Accession No: DEMO_BARCODE |        | Collected On: 21-Jan-25 09:15 | Received On: 21-Jan-25 12:24 | Approved On: 21-Jan-25 14:25 |
| Observation                | Result | Unit                          | Biological Ref. Interval     | Method                       |
| Ceruloplasmin              | 38.19  | mg/dL                         | 22-61                        | Nephelometry                 |

**Clinical Significance:** Ceruloplasmin is an acute phase protein and a transport protein and useful for investigation of patients with possible Wilson disease. Decreased concentrations occur during recessive autosomal hepatolenticular degeneration (Wilson disease). On a pathochemical level, the disease, which is accompanied by reduced ceruloplasmin synthesis, occurs as a consequence of missing Cu(2+) incorporation into the molecule due to defective metallothionein. This results in pathological deposits of copper in the liver (with accompanying development of cirrhosis), brain (with neurological symptoms), cornea (Kayser-Fleischer ring), and kidneys (hematuria, proteinuria, aminoaciduria). In homozygous carriers, ceruloplasmin levels are severely depressed. Heterozygous carriers exhibit either no decrease at all or just a mild decrease. The rare Menkes syndrome is a genetically caused copper absorption disorder with concomitant lowering of the ceruloplasmin level. Protein loss syndromes and liver cell failures are the most important causes of acquired ceruloplasmin depressions. As ceruloplasmin is a sensitive acute phase reactant, increases occur during acute and chronic inflammatory processes. Great increases can lead to a greenblue coloration of the sera.

**Cautions:**

- Ceruloplasmin levels are affected by infections (ceruloplasmin is a late acute phase reactant) and liver function.
- Birth control pills and pregnancy increase ceruloplasmin levels.
- Ceruloplasmin levels are not always extremely low in patients with Wilson disease.

**Clinical Reference**

- Cox DW, Tumer Z, Roberts EA: Copper transport disorders: Wilsons disease and Menkes disease. In Inborn Metabolic Disease. Edited by J Fernandes, JM Sandubray, F VandenBerghe. Berlin, Heidelberg, New York, Springer-Verlag, 2000, pp 385-391

**Advise:** Please correlate results clinically.



This is a Demo Signature  
and the doctor's signature should appear here

In case of any unexpected or alarming results, please contact us immediately for re-confirmation, clarifications, and rectifications, if needed.

