

Copper, Cu

General:

At low concentrations Copper is an essential trace nutrient to all higher plant and animal life. The main areas where copper is found in animals are tissues, liver, muscle and bone.

Copper is absorbed in the small intestine, bound to albumin and transported to the liver and predominantly excreted by the biliary system into the stool. Copper effects are involved in the formation of connective tissue, in the function of CNS and in hematopoiesis. Copper levels in urine reflect the free copper which is unlinked to caeruloplasmin as a transport protein.

Copper-based diseases: Because of its role in facilitating iron uptake, copper deficiency can produce anemia-like symptoms, neutropenia, bone abnormalities, hypopigmentation, impaired growth, increased incidence of infections, osteoporosis, and abnormalities in glucose and cholesterol metabolism.

An accumulation of copper in body tissues, is seen in persons who have inherited two defective genes leading to **Wilson's disease**.

Chronic copper toxicity does not normally occur in humans because of transport systems that regulate absorption and excretion.

The following tests are available:

- **Copper in blood**

Material: 1 ml serum

TAT: 7-10 days*

Method: AAS

Units: µg/dL



Ref.- range: see report

- **Copper in whole blood**

Material: 3 ml heparin blood

TAT: 7- 10 days*

Method: IPMS

Units: mg/L

Ref.- range: see report

For complete list of laboratory test offered at Freiburg Medical Laboratory, please visit
<http://www.fml-dubai.com/parameter-listings/>