
Lab Dept: **Anatomic Pathology**

Test Name: **COPPER LIVER, TISSUE**

General Information

Lab Order Codes: CUT

Synonyms: Cu Liver Tissue; Wilson's Disease

CPT Codes: 82525 – Copper

Test Includes: Quantitative copper

Logistics

Test Indications: Marked elevations of hepatic copper are characteristic of Wilson's disease (hepatolenticular degeneration) and primary biliary cirrhosis.

Lab Testing Section: Anatomic Pathology - Sendouts

Referred to: Mayo Medical Laboratories

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 2 – 5 days, test set up is Monday - Saturday

Special Instructions: Include suspected diagnosis and clinical information.

Specimen

Specimen Type: Tissue, in paraffin block

Container: Paraffin block

Draw Volume: See Collection

Processed Volume: See Collection

Collection: A paraffin block is acceptable if not more than 1 or 2 cuts have been made in it for slides. See Limitations.

Special Processing: Lab Staff: Send uncut paraffin block at room temperature. Forward promptly.

Note: Paraffin blocks will be returned in 2 weeks unless a request for an earlier return is made.

Patient Preparation: Physician preference

Sample Rejection: Insufficient specimen; unlabelled or mislabeled specimen

Interpretive

Reference Range: 10 - 35 ug/g dry weight

Critical Values: N/A

Limitations: Specimen handling should be minimized. A minimum tissue weight of 2 mg is required for analysis.

Paraffin blocks that have been cut for slides may be contaminated if the microtome was previously used to cut specimens that had been fixed with a copper containing solution. If possible, check microtome blade for green surface appearance.

Many fixatives such as Hollandes, contain high levels of copper. Any object that has been exposed to these fixatives and comes in contact with the tissue can potentially contaminate it. Rinsing and washing will not remove the copper contaminant. Any container that has been previously filled with a copper containing fixative can contaminate the tissue. Formalin will leach trace amounts of copper out of the plastic, therefore any plastic containers should be new.

Methodology: Inductively Coupled Plasma-Mass Spectrophotometry (ICP-MS)

Contraindications: Gadolinium is known to interfere with most metals tests. If gadolinium-containing contrast media has been administered, a specimen cannot be collected for 48 hours.

References: [Mayo Medical Laboratories Web Page](#) (February 2012)