**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, Wednesday, Friday  
**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 refrigerated 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

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**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:** Dynamic Reaction Cell - Inductively Coupled Plasma-Mass Spectrophotometry (DRC-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 96 hours.

**References:** [Mayo Medical Laboratories Web Page](https://www.mayomedicallaboratories.com) January 2018