

## TEST CHANGE

### Copper, Serum or Plasma

0020096, COPPER

#### Specimen Requirements:

**Patient Preparation:** Diet, medication, and nutritional supplements may introduce interfering substances. Patients should be encouraged to discontinue nutritional supplements, vitamins, minerals, and ~~nonessential~~~~non-essential~~ over-the-counter medications (upon the advice of their physician).

**Collect:** Royal blue (~~no additive~~), ~~royal~~~~No Additive~~, ~~Royal~~ blue (K2EDTA), or ~~r~~~~R~~oyal blue (NaHep).

**Specimen Preparation:** Separate from cells ASAP or within 2 hours of collection. Transfer 2 mL serum or plasma to an ARUP Trace Element-Free Transport Tube (ARUP supply #43116) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at ~~(800-) 522-2787~~ (Min: 0.5 mL). Do not use utensils (i.e., syringes, needles, or pipettes) in the collection or transfer of the sample, pour directly into transport tube.

**Transport Temperature:** Room temperature. Also acceptable: Refrigerated or frozen.

**Unacceptable Conditions:** Specimens that are not separated from the red cells or clot within 2 hours. Specimens collected in containers other than specified. Specimens transported in containers other than specified.

#### Remarks:

**Stability:** Ambient: Indefinitely; Refrigerated: Indefinitely; Frozen: Indefinitely

**Methodology:** Quantitative Inductively Coupled Plasma-Mass Spectrometry

**Performed:** Sun-Sat

**Reported:** 1-3 days

#### Note:

**CPT Codes:** 82525

**New York DOH Approval Status:** This test is New York DOH approved.

#### Interpretive Data:

Elevated results may be due to skin or collection-related contamination, including the use of a noncertified metal-free collection/transport tube. If contamination concerns exist due to elevated levels of serum/plasma copper, confirmation with a second specimen collected in a certified metal-free tube is recommended.

Serum copper may be elevated with infection, inflammation, stress, and copper supplementation. In females, elevated copper may also be caused by oral contraceptives and pregnancy (concentrations may be elevated up to 3 times normal during the third trimester).

Serum copper may be reduced by use of corticosteroids and zinc and by malnutrition or malabsorption.

~~This test was developed and its performance characteristics determined by ARUP Laboratories. It has not been cleared or approved by the US Food and Drug Administration. This test was performed in a CLIA certified laboratory and is intended for clinical purposes.~~

**Reference Interval:**

Age	Male	Female
0-10 years	75.0-153.0 ug/dL	75.0-153.0 ug/dL
11 years-12 years	64.0-132.0 ug/dL	64.0-132.0 ug/dL
13 years-18 years	57.0-129.0 ug/dL	57.0-129.0 ug/dL
19 years and older	70.0-140.0 ug/dL	80.0-155.0 ug/dL