

## TEST CHANGE

Zinc, Urine

0020462, ZINC U

### 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). Collection from patients receiving iodinated or gadolinium-based contrast media must be avoided for a minimum of 72 hours post-exposure. Collection from patients with impaired kidney function should be avoided for a minimum of 14 days post contrast media exposure.

**Collect:** 24 Hour Urine. Refrigerate during collection. Specimen must be collected in a plastic container. Also acceptable: Random Urine. **24 Hour Urine. Refrigerate during collection. Specimen must be collected in a plastic container. Also acceptable: Random Urine.**

**Specimen Preparation:** Transfer an 8 mL aliquot from a well-mixed collection to ARUP Trace Element-Free Transport Tubes (ARUP supply #43116) available online through eSupply using ARUP Connect(TM) or contact ARUP Client Services at (800) 522-2787. (Min: 1 mL)

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

**Unacceptable Conditions:** Specimens collected within 72 hours after administration of iodinated or gadolinium-based contrast media. Acid preserved urine. Specimens transported in containers other than specified. Specimen contaminated with blood or fecal material.

**Remarks:** Record total volume and collection time interval on transport tube and on test request form.

**Stability:** Ambient: 1 week; Refrigerated: 2 weeks; Frozen: 1 year

**Methodology:** Quantitative Inductively Coupled Plasma-Mass Spectrometry (ICP-MS)

**Note:** High concentrations of iodine or gadolinium may interfere with elemental testing.

**CPT Codes:** 84630

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

### Interpretive Data:

Zinc is predominantly eliminated in the feces. Elevated urine zinc may suggest excessive zinc supplementation but should be interpreted with a corresponding serum zinc concentration.

**Elevated results may be due to skin or collection-related contamination, including the use of collection containers that are not certified to be trace element free. If an elevated result is**

suspected to be due to contamination, confirmation with a second specimen collected in a certified trace element-free container is recommended.

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

Per 24h calculations are provided to aid interpretation for collections with a duration of 24 hours and an average daily urine volume. For specimens with notable deviations in collection time or volume, ratios of analytes to a corresponding urine creatinine concentration may assist in result interpretation.

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:

Test Number	Components	Reference Interval		
	Creatinine, Urine - per 24h			
		Age	Male (mg/d)	Female (mg/d)
		3-8 years	140-700	140-700
		9-12 years	300-1300	300-1300
		13-17 years	500-2300	400-1600
		18-50 years	1000-2500	700-1600
		51-80 years	800-2100	500-1400
		81 years and older	600-2000	400-1300
	Zinc, Urine - per 24h	150.0-1200.0 microg/d		
	Zinc, Urine - per volume	15.0-120.0 microg/dL		
	Zinc, Urine - ratio to CRT	110.0-750.0 microg/g CRT		