

0025013

Cadmium Exposure Panel - OSHA

CD EXP

**Specimen Required:** Patient Prep: To avoid contamination, please collect specimens at the beginning of work shift. Blood and urine should be collected the same day.

**Urine:** Diet, medication, and nutritional supplements may introduce interfering substances. Patients should be encouraged to discontinue nutritional supplements, vitamins, minerals, and non-essential over-the-counter medications (upon the advice of their physician). High concentrations of iodine may interfere with elemental testing. Collection of urine specimens from patients receiving iodinated or gadolinium-based contrast media should 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:** Royal blue (K<sub>2</sub>EDTA or Na<sub>2</sub>EDTA) **AND** minimum 40 mL urine using spot technique (single void) in an open-top urine collection cup.

**Specimen Preparation:** Transfer specimens to the appropriate transport device using the Cadmium exposure kit, ARUP supply #16450, available online through eSupply using ARUP Connect™ or by contacting ARUP Client Services at (800) 522-2787.

**Blood:** Transport 7 mL whole blood in the original collection tube. (Min: 0.5 mL)

**Urine for Beta-2-Microglobulin:** Transfer 3 mL aliquot from original urine collection to an ARUP Standard Transport Tube. Adjust the pH of this specimen immediately after pouring off collection, so the pH is between 6 and 8. Use 1M HCl or 5 percent NaOH to adjust the urine pH. Label tube as β2 Microglobulin. Freeze within one hour of collection.

**Urine for Cadmium:** Transfer 7 mL aliquot from original urine collection to ARUP Trace Element-Free Transport Tubes (ARUP supply #43116). Available online through eSupply using ARUP Connect™ or by contacting ARUP Client Services at (800) 522-2787. (Min: 0.5 mL) Label tube as Cadmium.

**Urine for Creatinine:** Transfer 2 mL aliquot from original urine collection to an ARUP Standard Transport Tube. (Min: 0.5 mL) Label tube as Creatinine.

**Storage/Transport Temperature: Blood:** Refrigerated.

**Urine for Beta-2-Microglobulin:** Frozen

**Urine for Cadmium:** Refrigerated.

**Urine for Creatinine:** Refrigerated.

**Remarks:** Trace Elements requisition form may be required (ARUP form #32990).

**Unacceptable Conditions: Blood:** Specimens collected in tubes other than Royal Blue (EDTA). Specimens transported in containers other than Royal Blue (EDTA) tube or Trace Element-Free Transport Tube. Heparin anticoagulant. Clotted specimens.

**Urine:** Specimens transported in non-trace element free transport tube (with the exception of the original device). Specimens collected within 72 hours after administration of iodinated or gadolinium-based contrast media. Specimens containing blood or fecal materials.

**Stability (collection to initiation of testing): Blood:** Ambient: Indefinitely; Refrigerated: Indefinitely; Frozen: **Unacceptable**

**Urine for Beta-2-Microglobulin:** Ambient: 8 hours; Refrigerated: 48 hours; Frozen: 2 months

**Urine for Cadmium:** Ambient: 1 week; Refrigerated: 2 weeks; Frozen: 1 year

**Urine for Creatinine:** Ambient: 2 days; Refrigerated: 1 month; Frozen: 6 months