

Client: Example Client ABC123  
123 Test Drive  
Salt Lake City, UT 84108  
UNITED STATES

Physician: Doctor, Example

**Patient: Patient, Example**

**DOB:** 5/18/2000  
**Gender:** Male  
**Patient Identifiers:** 01234567890ABCD, 012345  
**Visit Number (FIN):** 01234567890ABCD  
**Collection Date:** 00/00/0000 00:00

**Cadmium Exposure Panel - OSHA**

ARUP test code 0025013

Creatinine, Urine - per volume	127 mg/dL	
Beta-2-Microglobulin, Urine	117 ug/L	(Ref Interval: 0-300)
Beta-2-Microglobulin, ratio to CRT	92 ug/g CRT	(Ref Interval: 0-300)
pH, Urine	7.0	
Cadmium, Blood	<1.0 ug/L	(Ref Interval: <=5.0)
<p><b>INTERPRETATION INFORMATION: Cadmium, Blood</b></p> <p>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 blood cadmium, confirmation with a second specimen collected in a certified metal-free tube is recommended.</p> <p>Blood cadmium levels can be used to monitor acute toxicity and in combination with cadmium urine and B-2 microglobulin is the preferred method for monitoring occupational exposure. Symptoms associated with cadmium toxicity vary based upon route of exposure and may include tubular proteinuria, fever, headache, dyspnea, chest pain, conjunctivitis, rhinitis, sore throat and cough. Ingestion of cadmium in high concentration may cause vomiting, diarrhea, salivation, cramps, and abdominal pain.</p> <p>Test developed and characteristics determined by ARUP Laboratories. See Compliance Statement B: aruplab.com/CS</p>		
Cadmium, Urine - per volume	<1.0 ug/L	(Ref Interval: 0.0-1.0)

**H=High, L=Low, \*=Abnormal, C=Critical**

Unless otherwise indicated, testing performed at:

INTERPRETATION INFORMATION: Cadmium, Urine

Urine cadmium levels can be used to assess cadmium body burden. In chronic exposures, the kidneys are the primary target organ. Symptoms associated with cadmium toxicity vary based upon route of exposure and may include tubular proteinuria, fever, headache, dyspnea, chest pain, conjunctivitis, rhinitis, sore throat and cough. Ingestion of cadmium in high concentration may cause vomiting, diarrhea, salivation, cramps, and abdominal pain. See Compliance Statement B: aruplab.com/CS

Cadmium, Urine - ratio to CRT

Not Applicable ug/g CRT (Ref Interval: 0.0-3.0)

Unable to accurately calculate the creatinine normalized result due to a low per volume result.

CADMIUM ACTION LEVELS BEGINNING JANUARY 1999  
(Federal Register 1999 Std. CFR, Part 1910.1027 Appendix A)

Cadmium Urine (ug/g CRT):

A	B	C
0 - 3	3.1 - 7.0	7.1 or Greater

Cadmium Blood (ug/L):

A	B	C
0 - 5	5.1 - 10.0	10.1 or Greater

B-2-Microglobulin (ug/g CRT):

A	B	C
0 - 300	301 - 750	751 or Greater*

	A	B	C
Monitor	Annual	Semiannual	Quarterly
Med Exam	Biennial	Annual	Semiannual
Reassess CD exposure in less than 2 weeks **	---	Discretionary removal	Mandatory removal

\*If an employee's B2Microglobulin is above 750 ug/g CRT, in order for mandatory medical removal to be required, either the employee's CdU level must also be greater than 3 ug/g CRT or CdB level must also be greater than 5 ug/L.

\*\*The determination of discretionary or mandatory removal is made by the examining physician consistent with the medical surveillance specifications in the Federal Register pages 42456 to 42463.

References:

1. US Department of Labor(2004).Cadmium Occupational Safety and Health Administration.3136-06R.
2. US Department of Labor(1999).Cadmium Occupational Safety and Health Standard.1910.1027.

Urine B-2 Microglobulin is an early marker of irreversible kidney damage and disease.  
Urine Creatinine values less than 20 mg/dL represent very dilute urines and collection should be repeated.

H=High, L=Low, \*=Abnormal, C=Critical

VERIFIED/REPORTED DATES

Procedure	Accession	Collected	Received	Verified/Reported
Creatinine, Urine - per volume	20-357-136703	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Beta-2-Microglobulin, Urine	20-357-136703	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Beta-2-Microglobulin, ratio to CRT	20-357-136703	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
pH, Urine	20-357-136703	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Cadmium, Blood	20-357-136703	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Cadmium, Urine - per volume	20-357-136703	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Cadmium, Urine - ratio to CRT	20-357-136703	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00

END OF CHART

H=High, L=Low, \*=Abnormal, C=Critical

Unless otherwise indicated, testing performed at:

ARUP LABORATORIES | 800-522-2787 | aruplab.com  
500 Chipeta Way, Salt Lake City, UT 84108-1221  
Tracy I. George, MD, Laboratory Director

Patient: Patient, Example  
ARUP Accession: 20-357-136703  
Patient Identifiers: 01234567890ABCD, 012345  
Visit Number (FIN): 01234567890ABCD  
Page 3 of 3 | Printed: 1/20/2021 11:38:50 AM  
4848