

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

Physician: Doctor, Example

Patient: Patient, Example

DOB: 2/25/1962
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	243 mg/dL	
Beta-2-Microglobulin, Urine	100 ug/L	(Ref Interval: 0-300)
Beta-2-Microglobulin, ratio to CRT	41 ug/g CRT	(Ref Interval: 0-300)
pH, Urine	5.0	

The pH of this sample is 5. Urine for B2M U should have the pH adjusted to between 6-8, as B2M U is very unstable in urine. Results may not reflect the true status of the patient.

Cadmium, Blood	1.3 ug/L	(Ref Interval: <=5.0)
<p>INTERPRETATION INFORMATION: Cadmium, Blood</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	2.2 ug/L	H	(Ref Interval: 0.0-1.0)
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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

0.9 ug/g CRT (Ref Interval: 0.0-3.0)

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	20-349-136973	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Beta-2-Microglobulin, Urine	20-349-136973	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Beta-2-Microglobulin, ratio to CRT	20-349-136973	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
pH, Urine	20-349-136973	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Cadmium, Blood	20-349-136973	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Cadmium, Urine - per volume	20-349-136973	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Cadmium, Urine - ratio to CRT	20-349-136973	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: 20-349-136973
Patient Identifiers: 01234567890ABCD, 012345
Visit Number (FIN): 01234567890ABCD
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