



3425 Corporate Way • Duluth GA 30096 USA
770.446.5483 • Fax: 770.441.2237
www.metamatrix.com

Ordering Physician:
Robert David, PhD
3425 Corporate Way
Duluth, GA 30096

Accession #: **A1109190214**
Reference #:
Patient: **Jane Doe**
Date of Birth: 11/10/1979
Age: 31
Sex: Female
E-Mail: skelly@metamatrix.com
Reprinted: 11/03/2011
Comment:

Date Collected: 09/18/2011
Date Received: 09/19/2011
Date of Report: 09/22/2011
Telephone: (770) 446-4583
Fax: (770) 441-2237



0058 Nutrient & Toxic Elements - 24 Hour Urine - Chelated

Methodology: Gas Chromatography/Mass Spectrometry

Additional chemical elements are now reported, and ranges are updated according to improved analytical methods.

When the test requisition indicates the specimen was collected after a chelation challenge, the chelated ranges are shown on the report along with the non-chelated ranges, and abnormalities are flagged based on the chelated ranges. The population used for the chelated ranges includes challenges with DMSA, EDTA and other chelating agents.

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Results ug/day	Quintile Ranking 1st 20 40 60 80 5th	Non-Chelated 95% Reference Range	Chelated 95% Reference Range
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Toxic Elements

1. Aluminum	<DL		<= 19.8	<= 27.6
2. Arsenic	4		<= 156	<= 157
3. Cadmium	0.37		<= 0.75	<= 1.46
4. Lead	<DL		<= 1.19	<= 14.40
5. Mercury	1.8		<= 1.94	<= 7.82
6. Thallium	0.16		<= 0.61	<= 0.96

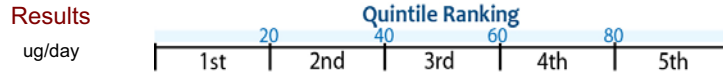
Potentially Toxic and Rare Earth Elements

7. Antimony	<DL		<= 0.26	<= 0.39
8. Barium	1		<= 9.0	<= 21.0
9. Bismuth	<DL		<= 0.69	<= 6.49
10. Cerium*	0.02		<= 0.14	<= 0.16
11. Cesium	<DL		<= 13.4	<= 18.9
12. Europium*	<DL		<= 0.008	<= 0.022
13. Holmium*	<DL		<= 0.008	<= 0.027
14. Indium	0.007		<= 0.020	<= 0.027
15. Niobium	<DL		<= 0.050	<= 0.056
16. Palladium	<DL		<= 0.47	<= 4.47
17. Platinum	<DL		<= 2.7	<= 2.7

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Chelating Agent:DMSP



Non-Chelated
95% Reference
Range

Chelated
95% Reference
Range

Potentially Toxic and Rare Earth Elements

Element	Results	Quintile Ranking	Non-Chelated 95% Reference Range	Chelated 95% Reference Range
18. Rubidium	<DL	1st	<= 3.47	<= 4.13
19. Samarium*	<DL	1st	<= 0.03	<= 0.05
20. Tantalum	<DL	1st	<= 0.18	<= 0.20
21. Tellurium	<DL	1st	<= 0.82	<= 1.17
22. Terbium*	<DL	1st	<= 0.01	<= 0.01
23. Thorium	<DL	1st	<= 0.15	<= 0.23
24. Thulium*	<DL	1st	<= 0.006	<= 0.013
25. Tin	<DL	1st	<= 2.9	<= 4.0
26. Tungsten	<DL	1st	<= 0.58	<= 1.22
27. Uranium	<DL	1st	<= 0.031	<= 0.090
28. Zirconium	<DL	1st	<= 1.40	<= 3.25

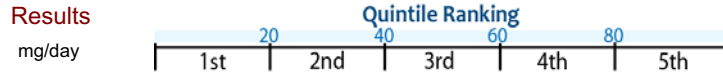
Nutrient Elements

Element	Results	Quintile Ranking	Non-Chelated 95% Reference Range	Chelated 95% Reference Range
29. Calcium**	105	96	6-397	30-517
30. Chromium	<DL L	0.06	0.05-1.16	0.05-3.32
31. Cobalt	0.5	0.38	0.07-2.02	0.23-25.48
32. Copper	5 L	12	3-31	7-79
33. Magnesium**	43 L	57	20-266	14-300
34. Manganese	11.94		<= 2.02	<= 30.54
35. Molybdenum	21 L	22	6-210	10-281
36. Selenium	63	42	4-191	7-270
37. Zinc	686	326	35-1612	142-12698

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Chelating Agent:DMSP



Non-Chelated
95% Reference
Range

Chelated
95% Reference
Range

Elements of Uncertain Human Requirement

Element	Results mg/day	Quintile Ranking	Non-Chelated 95% Reference Range	Chelated 95% Reference Range
38. Boron**	0.9 L	1 (5.5)	0.1-7.0	0.3-9.5
39. Lithium	22	21 (119)	4-114	11-277
40. Nickel	3.9	1.8 (6.3)	0.1-7.9	1.0-8.6
41. Strontium	62 L	92 (340)	19-467	68-492
42. Vanadium	9.57 H	0.41	<= 0.53	<= 1.52

Volume = 1105 mL

<DL = less than detection limit

*Rare Earth Element

**Calcium, magnesium, and boron are reported in mg/day.

Chelated ranges were created by pooling samples received from patients that were provoked with DMSA, EDTA, or other chelating agents.