

Biolab Medical Unit

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Biolab Reference:

Patient:

Date:

DOB:

Doctor:

URINE ELEMENTS

(Reported as the molar metal/creatinine ratio to compensate for variations in urine dilution)

Urine creatinine = mmol/L 6 hour urine volume = mL

| ELEMENT | RESULT umol/mol creatinine | REF RANGE umol/mol creatinine | POPULATION MEAN umol/mol creatinine | COMMENTS |
|-----------------|----------------------------------|-------------------------------------|---|-----------|
| ALUMINIUM (Al) | | < 130 | 34 | (T) |
| ANTIMONY (Sb) | | < 2.60 | 0.90 | (T,D) |
| ARSENIC (As) | | < 94 | 38 | (T,S) |
| BARIUM (Ba) | | < 7.7 | 2.3 | (T,S) |
| BERYLLIUM (Be) | | < 7.8 | none | (T,S) |
| CADMIUM (Cd) | | < 1.00 | none | (T,S) |
| CHROMIUM (Cr) | | < 2.50 | 0.84 | (N,V,S) |
| COBALT (Co) | | < 9.00 | 2.80 | (N,H) |
| COPPER (Cu) | | 7 - 57 | 22 | (N,H,D) |
| LEAD (Pb) | | < 2.20 | none | (T) |
| MANGANESE (Mn) | | < 5.00 | 1.80 | (N,H,V,S) |
| MERCURY (Hg) | | < 2.00 | none | (T,S) |
| MOLYBDENUM (Mo) | | < 134 | 66 | (N,H,S) |
| NICKEL (Ni) | | < 27.2 | 7.1 | (T,S) |
| SELENIUM (Se) | | 20 - 190 | 110 | (N,H) |
| THALLIUM (Tl) | | < 0.42 | 0.19 | (T) |
| TIN (Sn) | | < 15.3 | 4.8 | (T,S) |
| ZINC (Zn) | | 17 - 1624 | 644 | (N,D) |

(ND) not detected, (N) nutrient, (T) toxic (no safe level), (H) toxic at high levels, (V) toxic in certain valency states,
(D) increased level may reflect disease or drug therapy, (S) sensitising capability.

* above average levels, ** high result, L low level of an essential element.

These tests are performed for medical purposes only. We cannot enter into legal disputes.

References:

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3. Rodushkin I. et al., Multi-element analysis of body fluids by double-focusing ICP-MS, Transworld Res. Network. Recent Res. Devel. Pure & Applied Chem., 2001, 5, pp 51-66.
4. Komaromy-Hiller G, Ash KO, Costa R, Howerton K. Comparison of representative ranges based on US patient population and literature reference intervals for urinary trace elements. Clin Chim Acta 2000;296:71-90.
5. Burtis CA, Ashwood ER, Bruns DE. Tietz Textbook of Clinical Chemistry and Molecular Diagnostics 4th Ed. 2006, P. 1904.