



**ENVIRONMENTAL ANALYSIS**

URINE, 24 HOUR	Result	Range	Units	
<b>Toxic Metals, 24hr Urine</b>				
Timed Urine Volume	752.0	693.0 - 3741.0	mL	
<b>Essential Elements, 24hr Urine</b>				
Chromium, 24hr Urine	0.28 *L	0.55 - 4.83	ug/gCR	
Cobalt, 24hr Urine	1.83	< 5.00	ug/gCR	
Copper, 24hr Urine	69.20 *H	1.45 - 60.00	ug/gCR	
Iron, 24hr Urine	15.40	2.20 - 45.00	ug/gCR	
Manganese, 24hr Urine	1.69	< 4.50	ug/gCR	
Molybdenum, 24hr Urine	16.60	9.70 - 100.00	ug/gCR	
Selenium, 24hr Urine	42.10	12.00 - 90.00	ug/gCR	
Vanadium, 24hr Urine	0.66	< 1.40	ug/gCR	
Calcium, 24hr Urine	97.10	55.00 - 245.00	mg/gCR	
Magnesium, 24hr Urine	38.20	12.00 - 150.00	mg/gCR	
Zinc, 24hr Urine	0.33	0.06 - 0.78	ug/gCR	
Germanium, 24hr Urine	0.27	0.00 - 1.50	ug/gCR	
Lithium, 24hr Urine	43.20	< 175.00	ug/gCR	
Strontium, 24hr Urine	31.90	< 200.00	ug/gCR	

**Urine Metals Information**

**URINE ANALYSIS AND CHELATION INFORMATION:**

Urine analysis is an indispensable tool for assessing the renal ability to excrete and to assess renal disease. The information contained in this report is designed as an interpretive adjunct to normally conducted diagnostic procedure. The findings are best viewed in the context of a medical examination and history.

The results are reported in ug/g creatinine for the trace elements and heavy metals. Normalization per ug creatinine reduces the potentially great margin of error which otherwise can result from sample collection and variation in sample volume given.

Chelation treatment or provocation with complexing agents increase metal binding and urinary excretion. The maximum urinary excretion varies, depending on the chelating or complexing agent used and the binding capacity of the various chelating agents varies considerably. 24hrs prior to chelation, intake of mineral-containing supplements and algae products, medication or food such as fish which may be containing high levels of toxic metals such as Arsenic (As) or Mercury (Hg) should be avoided

To maximize the detoxification process, it is important to understand the binding capacity of these agents. Since the maximum metal excretion depends on the chelating agent's half-life, the appropriate urine collection protocol must be followed.

Urine analysis allows close monitoring of a patient's response to chelation therapy. In addition, urine mineral analysis reflects the body's immediate nutritional status, and factors influencing excretion. However, blood mineral analysis and other mineral assays are better indicators of a patient's nutritional status.

Aluminum, 24hr Urine ( Al )	17.50	< 40.00	ug/gCR	
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(\*) Result outside normal reference range

(H) Result is above upper limit of reference rang (L) Result is below lower limit of reference range

P: 1300 688 522  
E: info@nutripath.com.au

16 HARKER STREET  
BURWOOD VIC 3125

Dr.SAMPLE REPORT  
TEST HEALTH CENTRE  
123 TEST STREET  
BURWOOD VIC 3125

LAB ID :            3814156  
UR NO. :  
Collection Date : 09-May-2022  
Received Date:    09-May-2022



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**ENVIRONMENTAL ANALYSIS**

URINE, 24 HOUR	Result	Range	Units	
Antimony, 24hr Urine ( Sb )	<DL (a)	< 1.00	ug/gCR	
Arsenic, 24hr Urine ( As )	<b>83.20 *H</b>	< 15.00	ug/gCR	
Barium, 24hr Urine ( Ba )	1.19	< 5.70	ug/gCR	
Beryllium, 24hr Urine ( Be )	<DL (a)	< 0.31	ug/gCR	
Bismuth, 24hr Urine ( Bi )	0.03	< 0.15	ug/gCR	
Cadmium, 24hr Urine ( Cd )	<b>1.16 *H</b>	< 0.80	ug/gCR	
Lead, 24hr Urine ( Pb )	3.84	< 5.00	ug/gCR	
Mercury, 24hr Urine ( Hg )	<b>2.81 *H</b>	< 1.00	ug/gCR	
Nickel, 24hr Urine ( Ni )	2.16	< 3.00	ug/gCR	
Platinum, 24hr Urine ( Pt )	<DL (a)	< 0.60	ug/gCR	
Silver, 24hr Urine ( Ag )	0.18	< 0.40	ug/gCR	
Thallium, 24hr Urine ( Tl )	<DL (a)	< 0.60	ug/gCR	
Tin, 24hr Urine ( Sn )	0.09	< 2.00	ug/24h	

**Ess. Elements Comment**

**LOW CHROMIUM LEVEL:**

CHROMIUM (Cr) is an essential trace element that is required for the sugar and fat metabolism and is part of the glucose tolerance factor. Low chromium levels are often found in the elderly, pregnant women whose diet is rich in refined food, and alcoholics. Deficiency conditions are atherosclerotic plaque, elevated LDL cholesterol levels, increased insulin need, impaired glucose tolerance and a reduced stress response. Deficiency causes are diets rich in highly processed foods, alcoholism, malabsorption, and insufficient intake of B-vitamins.

SOURCES: whole grains, brewer's yeast, wheat germ, meat and cheeses.

THERAPEUTIC CONSIDERATION: increase chromium and B-vitamin intake.

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#### Toxic Metals Comments

##### ARSENIC

Associated with increased risk of: Vascular disease, Atherosclerosis, Cancers of skin, bladder and lung.

##### Sources:

Environmental sources of arsenic exposure include food, water, soil, and air, esp. around arsenic-containing mineral ores. In industry, arsenic is a by-product of the smelting process for many metal ores such as lead, gold, zinc, cobalt, and nickel. Arsenic is used for purifying industrial gases (removal of sulfur), burning fossil fuels, electronics manufacturing (microwave devices, lasers, light-emitting diodes, photoelectric cells, and semiconductor devices), hardening metal alloys, preserving animal hides, bronze plating, and clarifying glass and ceramics.

Other potential sources of arsenic exposure are:

- Wood preservatives, insecticides, herbicides (weed killers and defoliants), fungicides, cotton desiccants, cattle and sheep dips, paints and pigments, antifouling paints, leaded gasoline, and fire salts (multicolored flame).
- Wine (grapes sprayed with arsenic-containing pesticides), Seafood (especially certain cold water and bottom-feeding finfish) and Seaweed.
- Smokers may also inhale small amounts of arsenic as a result of pesticide residue on tobacco leaves.
- Medicinals: Fowler's solution (potassium arsenite), antiparasitic drugs (carbasone), Donovan's solution, folk remedies ("Asiatic pill," kushtay, yellow root), kelp-containing health foods, some naturopathic remedies.

##### Treatment:

Address underlying causes and consider EDTA chelation IV.

##### Laboratory Information:

The given reference range applies only if 48hrs prior to the urine collection no fish, or algae products were consumed. Mineral waters high in arsenic may also raise urinary excretion levels. Consumption of any of these sources raises urine levels considerably, at least 2-3 times above the given range. Smoking may also raise urinary excretion levels or arsenic.

##### MERCURY

Pervasive toxic tissue effects due to non-specific enzyme poisoning.

Urine is the most reliable way to assess exposure to inorganic mercury. Levels >50 ug/24h indicate mercury overload.

However, quantity found in urine does not correlate severity of symptoms.

Hair & Whole blood mercury levels correlate with severity of symptoms.

##### Treatment:

Avoid Mercury, consider DMSA or DMPS chelation. Check urine challenge test every 6 weeks and stop chelation when mercury level is below 10mg/24h in urine post chelation. Consider removing amalgam dental fillings with a well-qualified dentist in amalgam removal, particularly if sick (neuro symptoms) or high mercury levels are noted. Sauna treatments can help. Use antioxidants Vit C 3000 mg/day, Selenium 200-400mcg/day (protects against cellular toxic effects of mercury), SAME 200 mg twice a day, Manganese 15 mg/day, Molybdenum 75-250 mcg/day, Zinc 50 mg/day, Amino Acid chelates.



# SAMPLE REPORT

## 09-May-1990

## Female

P: 1300 688 522  
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### Increase elimination:

Methionine 3000 mg/day (ensure adequate Vit B12 and folate to prevent homocysteine elevation), Vit C 3000 mg/day, Lipoic Acid 100 mg three times a day.

Add competing nutrient elements: Selenium 200-400 mcg/day.

### COPPER HIGH

A cofactor in: lipid metabolism, liver detoxification, neurological control, erythrocyte superoxide dismutase.

Used in thyroid function, melanin production, used for lumbar disc health.

Causes for high level: Supplementation, copper water supply pipes, copper element in kettles, infection, inflammation, anemia, cancer, hemochromatosis, poisoning, pregnancy, primary biliary cirrhosis, renal disease, rheumatoid arthritis, SLE, thyroid disease.

Medication causes: Carbamazepine, Oral contraceptives, Phenobarbital, phenytoin, Valproic acid.

Symptoms and conditions: Elevated systolic blood pressure, learning and other mental disorders, vomiting, hepatic necrosis.

Treatment: Stop supplementation, address underlying causes, methionine (chelation action).

Tests ordered: 24UMetox,24uEssEI,IMPEI

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