

Lab ID
Patient ID P000060
Ext ID 26114-0449

Test Patient

Sex: Female • 56yrs • 01-Jan-70
123 Home Street, Test Suburb VIC 3125

RECEIVED
24-Apr-26

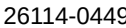
ESSENTIAL MINERALS ANALYSIS

Specimen type - Urine, Spot

Collected

15-Apr-26

ESSENTIAL MINERALS						
TEST	RESULT	H/L		REFERENCE	UNITS	
Calcium	127.00			(<450.00)	mg/gCR	
Chromium	0.06			(<4.60)	ug/gCR	
Cobalt	0.00			(<1.60)	ug/gCR	
Copper	62.0	H		(<55.0)	ug/gCR	
Germanium	0.00			(<1.50)	ug/gCR	
Iron	45			(<200)	ug/gCR	
Lithium	10.10			(<55.00)	ug/gCR	
Magnesium	49.80			(<290.00)	mg/gCR	
Manganese	0.44			(<1.50)	ug/gCR	
Molybdenum	13.10			(<65.00)	ug/gCR	
Selenium	8.70	L		(10.00-63.00)	ug/gCR	
Strontium	56.40			(<310.00)	ug/gCR	
Vanadium	1.34			(<8.00)	ug/gCR	
Zinc	208.00			(<900.00)	ug/gCR	
SERVICE	RESULT	H/L		REFERENCE	UNITS	
Creatinine, Urine	5.30			(2.47-19.20)	mmol/L	



Dr Test Doctor (Test Doctor) Test Clinic. 123 Test Street, Test Suburb Victoria 3125

Lab ID
Patient ID P000060
Ext ID 26114-0449

Test Patient

Sex: Female • 56yrs • 01-Jan-70
123 Home Street, Test Suburb VIC 3125

RECEIVED
24-Apr-26

Essential Minerals Comment

SELENIUM LOW (URINE)

Low urinary selenium suggests reduced selenium intake and/or lower selenium availability for physiological processes. Selenium is an essential trace element required for the activity of multiple selenoproteins, including glutathione peroxidases and iodothyronine deiodinases, which are involved in antioxidant defence and thyroid hormone metabolism.

Clinically, low selenium availability may be associated with reduced antioxidant capacity, impaired immune function, thyroid dysregulation, fatigue, or increased susceptibility to oxidative stress, although symptoms are often subtle.

From a functional medicine perspective, low urinary selenium should be interpreted in the context of dietary intake, geographic soil selenium content, thyroid function, and overall oxidative stress burden rather than as an isolated deficiency marker. Correlation with clinical context and, where indicated, serum selenium or functional markers may be appropriate.

Treatment considerations:

1. Increase foods rich in Selenium e.g. organ meats, eggs, garlic, shellfish, brazil nuts, whole grains, brazil nuts
2. Selenium
3. Reduce exposure to heavy metals. Lead and Arsenic are antagonistic to Selenium.

VANADIUM (V) LOW: The biological function of vanadium has not fully been substantiated, but there is evidence that it is essential for the growth of some animals. Vanadium may influence lipid metabolism, insulin function, and reduce caries formation in animals. Vanadium is poorly absorbed. **SOURCE:** All plant foods, especially soymeal and vegetable oils.

COPPER ELEVATED (URINE):

Elevated urinary copper suggests increased copper excretion, which may occur with higher intake, inflammatory activity, hormonal influences, or altered hepatic copper handling.

Clinically, elevated urinary copper may be associated with fatigue, mood changes, or increased oxidative stress, although findings are non-specific.

From a functional medicine perspective, this result should be interpreted in the context of copper–zinc balance, inflammatory status, oestrogen exposure, and liver function rather than as an isolated indicator of copper excess. Correlation with serum copper and plasma zinc may assist in contextual interpretation where clinically indicated.

Methodology

Inductively Coupled Plasma Mass Spectrometry (ICP-MS), Automated Chemistry/Immunochemistry