

Patient Name : Mr MR.DUMMY	Sample Collected : Apr 26, 2024, 01:00 PM
DOB/Age/Gender : 23 Y/Male	Report Date : May 09, 2024, 01:14 PM
Patient ID / UHID : 8052244/RCL7248796	Barcode No : ZC665704
Referred By : Dr. X	Report Status : Final Report
Sample Type : Whole blood EDTA	

Test Description	Value(s)	Unit(s)	Reference Range
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**Cobalt, Blood**

Cobalt Blood ICPMS	0.06	µg/L	0.01-0.91
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**Interpretation:**

Cobalt - Interpretation	Associated conditions
Cobalt (Co) is an essential trace element and is an integral part of vitamin B12. It is important in haematopoiesis and thyroid function and formation of myelin nerve coverings.	A deficiency in vitamin B12 is ultimately a cobalt deficiency, and more common in vegetarian. As cobalt deficiency leads to decreased availability of B12, there is an increase of many symptoms related to vitamin B12 deficiency particularly central nervous system complaints, pernicious anaemia, and potentially fatal macrocytic anaemia.
Blood cobalt levels can be used in the assessment of occupational exposure or toxic ingestion. Exposures to cobalt metal and fumes occur in the metal production, refining processes and in the chemical industry. Dermal exposures to cobalt salts, pigments, occur in the rubber industry, tire manufacture, and in use of paints and varnishes, pottery decoration, and inks for offset printing. Non-occupational exposure to cobalt arises from surgical implants, dental prostheses, and contact with metallic objects such as jewellery	Symptoms associated with cobalt toxicity vary based on route of exposure and may include cardiomyopathy, allergic dermatitis, pulmonary fibrosis, cough and dyspnoea.

- Whole Blood / Serum metal testing is used for the detection of recent exposure or poisoning with the toxic element. However, blood metal levels in healthy subjects can vary considerably with exposure to the particular metal present in the diet and in the environment.
- It should be noted that low or within acceptable levels in blood / serum do not always exclude that the element is uninvolved in contributing to the patient's symptoms because certain elements may be sequestered in tissues.
- Lower metal levels in patients on follow-up imply that the toxic element exposure is reduced in the patient's immediate environment or that the body has efficiently eliminated the toxic element.

**Reference :**

- A• Sample collection guidelines for trace elements in blood and urine. International union of pure and applied chemistry clinical chemistry division commission on toxicology working party. Pure & Appl. Chem., Vol. 67, Nos 8/9, pp. 1575-1608, 1995.
- B• Nutrient & toxic elements interpretative guide, metamatrix, USA, 2011.

\*\*\* End Of Report \*\*\*

**Disclaimer: Method given in report are only indicative and can be changed depending upon type of machine and kit available at time of testing.**

**Not all tests at all locations are under NABL scope. Availability of tests under NABL scope varies from lab to lab.**



**Dr. Dummy**



Booking Centre :- DEMO PARTNER CHENNAI, DEMO PARTNER CHENNAI  
Processing Lab :-

928-909-0609

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All Lab results are subject to clinical interpretation by qualified medical professional and this report is not subject to use for any medico-legal purpose.

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