Patient Name	:	Bill Date	:
DOB/Age/Gender	:	Sample Collected	:
Patient ID / UHID	:	Sample Received	:
Referred By	:	Report Date	:
Sample Type	:	Barcode No	:
Client	:	Report Status	:

Test Description	Value(s)	Unit(s)	Reference Range

BIOCHEMISTRY REPORT

Manganese, Spot Urine

MANGANESE URINE Method : (ICPMS)	**11.49**	ug/L	<2.00

Interpretation:

REFERENCE GROUP	REFERENCE RANGE IN ug/L
Normal individuals	0.50-9.80
Toxicity	>10.00

Note:
1. Inductively Coupled Plasma Mass Spectrometry (ICPMS) is used to determine the level of heavy / trace metals in biological tissues
2. To assess occupational exposure sample should be collected at the end of the shift on the last day of the work week

Comments
Manganese is an essential element used as a co-factor for a number of enzymatic reactions. Main intake is derived from food, vegetables, germinal portions of grains, fruits, nuts, tea and some spices. It is used in industries dealing with steel alloys, dry cell batteries, electrical coils, ceramics, matches, glass tiles, welding rods, animal food additives & fertilizers. Individuals working in industries with high concentrations of manganese dust show a 30 times greater incidence of respiratory disease than normal individuals. Manganese exposure leads to abnormal electrocardiogram and inhibits myocardial contraction.

Increased Levels
1. Acute hepatitis
2. Industrial exposure
3. Myocardial infarction

Decreased Levels
1. Seizures
2. Phenylketonuria

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HOD (Biochemistry & Special Assays)

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.

Terms and Conditions of Reporting

1. The presented findings in the Reports are intended solely for informational and interpretational purposes by the referring physician or other qualified medical professionals possessing a comprehensive understanding of reporting units, reference ranges, and technological limitations. The laboratory shall not be held liable for any interpretation or misinterpretation of the results, nor for any consequential or incidental damages arising from such interpretation.

2. It is to be presumed that the tests performed pertain to the specimen/sample attributed to the Customer's name or identification. It is presumed that the verification particulars have been cleared out by the customer or his/her representation at the point of generation of said specimen / sample. It is hereby clarified that the reports furnished are restricted solely to the given specimen only.

3. It is to be noted that variations in results may occur between different laboratories and over time, even for the same parameter for the same Customer. The assays are performed and conducted in accordance with standard procedures, and the reported outcomes are contingent on the specific individual assay methods and equipment(s) used, as well as the quality of the received specimen.

4. This report shall not be deemed valid or admissible for any medico-legal purposes.

5. The Customers assume full responsibility for apprising the Company of any factors that may impact the test finding. These factors, among others, includes dietary intake, alcohol, or medication / drug(s) consumption, or fasting. This list of factors is only representative and not exhaustive.

DISCLAIMER

This is a sample report provided for demonstration purposes only and does not represent an actual patient report. Test results, reference ranges, methodologies, instrumentation, and report formats may vary depending on the laboratory performing the test. The format and representation shown are indicative of reports generated by the National Reference Laboratory of Redcliffe Labs, Noida. This sample report should not be used for medical interpretation, diagnosis, or treatment decisions.