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## Mr. Saubhik Bhaumik

Age / Sex : 27 YRS / M

Referred by : Dr. Sachin Patil (MBBS)

Reg. no. : 1008

1008

Registered on : 17/10/2024 05:36 PM

Collected on : 17/10/2024 Received on : 17/10/2024

Reported on : 17/10/2024 05:36 PM



# BIOCHEMISTRY IRON STUDIES

TEST		VALUE	UNIT	REFERENCE
IRON		167	μg/dl	65 - 175
UIBC Method: Calculated	L	109.00	μg/dl	155 - 355
TOTAL IRON BINDING CAPACITY (TIBC)		276	μg/dl	240 - 450
TRANSFERRIN SATURATION Method: Calculated	Н	60.51	%	20 - 55

#### Physiological basis

Plasma iron concentration is determined by absorption from the intestine; storage in the intestine, liver, spleen, bone marrow, rate of breakdown or loss of hemoglobin, and rate of synthesis of new hemoglobin.

## Interpretation for Iron (Fe), serum or plasma

r;,	r
Increased	Decreased
Hemosiderosis (eg, multiple transfusions, excess iron administration),	Iron deficiency, nephrotic syndrome, chronic renal
acute Fe poisoning (children), hemolytic anemia, pernicious anemia,	failure, many infections, active hematopoiesis,
aplastic or hypoplastic anemia, viral hepatitis, lead poisoning,	remission of pernicious anemia, hypothyroidism,
thalassemia, hemochromatosis. Drugs: estrogens, ethanol, oral	malignancy (carcinoma), postoperative state,
contraceptives.	kwashiorkor.

**TIBC** correlates with serum transferrin, but the relationship is not linear over a wide range of transferrin values and is disrupted in diseases affecting transferrin-binding capacity or other iron-binding proteins.

Increased in: Iron deficiency anemia, late pregnancy, infancy, acute hepatitis. Drugs: oral contraceptives.

<u>Decreased in</u>: Hypoproteinemic states (eg, nephrotic syndrome, starvation, malnutrition, cancer), hemochromatosis, thalassemia, hyperthyroidism, chronic infections, chronic inflammatory disorders, chronic liver disease, and other chronic diseases.

**Increased** % **transferrin saturation** with iron is seen in iron overload (iron poisoning, hemolytic anemia, sideroblastic anemia, thalassemia, hemochromatosis, pyridoxine deficiency, aplastic anemia, RBC transfusions).

**Decreased** % transferrin saturation with iron is seen in iron deficiency (usually saturation < 16%). It can also be used to assess nutritional status.

~~~ End of report ~~~

Mr. Sachin Sharma DMLT, Lab Incharge

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**Dr. A. K. Asthana**MBBS, MD Pathologist

## NOT VALID FOR MEDICO LEGAL PURPOSE

Work timings: Monday to Sunday, 8 am to 8 pm