MAYO
Mayo Medical Laboratories
1-800-533-1710

NEW TEST ANNOUNCEMENT
NOTIFICATION DATE: July 20, 2012
EFFECTIVE DATE: August 2, 2012

IRON AND TOTAL IRON-BINDING CAPACITY, SERUM
Test ID: FEC

USEFUL FOR: Serum iron, total iron binding capacity (TIBC) and percent saturation are used to evaluate patients with iron deficiency or iron overload, particularly hereditary hemochromatosis.

The calculation of TIBC and percent saturation will be based on quantification of serum iron and the iron binding protein, transferrin. The previous calculations were based on measurement of serum iron and unsaturated iron binding capacity (UIBC). The TIBC and Percent Saturation reference intervals will not change.

METHODOLOGY:
Iron: Photometric, Fe^{2+}-FerroZine Complex
Transferrin and TIBC: Transferrin concentration is determined by an immunoturbidimetric assay on the Roche Cobas platform. Total iron-binding capacity (TIBC) is calculated from measured transferrin concentration multiplied by 1.18. Internal Mayo Clinic studies were conducted over a period of three years (2010-2012) to establish the factor (1.18) and validate the calculation.

REFERENCE VALUES:
IRON
Males: 50-150 mcg/dL
Females: 35-145 mcg/dL

TOTAL BINDING CAPACITY
250-400 mcg/dL

PERCENT SATURATION
14-50%

SPECIMEN REQUIREMENTS: Draw blood in a plain, red-top tube(s) or a serum gel tube(s) from a fasting patient (12 hour) before 12 noon. Hemolyzed specimen is not acceptable. Centrifuge and send 1 mL of serum refrigerated or frozen in plastic vial.

NOTE: 1. Supplements containing iron should be avoided for 24 hours prior to draw.

2. Patient's age and sex are required on request form for processing.

SPECIMEN STABILITY INFORMATION:

Specimen Type	Temperature	Time
Serum	Refrigerated (preferred)	7 days
	Frozen	6 months

LIST FEE: $70.40

CPT CODES:
83540/Iron
83550/Iron-binding capacity

DAY(S) SET UP: Monday through Saturday; **ANALYTIC TIME**: Same day/1 day Continuously

QUESTIONS: Contact your Mayo Medical Laboratories' Regional Manager or
Richard R. Einerson, MML Laboratory Technologist Resource Coordinator
Telephone: 800-533-1710