
Lab Dept: Chemistry

Test Name: BILE ACIDS, FRACTIONATED & TOTAL

General Information

Lab Order Codes: BAFS

Synonyms: N/A

CPT Codes: 82542 - Column chromatography/mass spectrometry (eg, GC/MS, or HPLC/MS), analyte not elsewhere specified

Test Includes: The following analytes reported in nmol/mL: Total Cholic acid, Total Chenodeoxycholic acid, Total Deoxycholic acid, Total Ursodeoxycholic acid, Total Bile acids

Logistics

Test indications:

- Measuring tauro- and glycol-conjugated and unconjugated bile acid constituents in serum.
- Monitoring patients receiving bile acid therapy, such as cholic acid, deoxycholic acid or ursodeoxycholic acid.
- Aiding the evaluation of liver function; evaluation of liver function changes before the formation of more advanced clinical signs of illness such as icterus.
- Determining hepatic dysfunction as a result of chemical and environmental injury.
- Indicating hepatic histological improvement in chronic hepatitis C patients responding to interferon treatment.
- Indicating intrahepatic cholestasis of pregnancy.

NOTE: This test should not be used for the diagnosis of peroxisomal biogenesis disorders or inborn errors of bile acid metabolism. Mayo offers a separate test for these situations.

Lab Testing Sections: Chemistry - Sendouts

Referred to: Mayo Clinic Laboratories

Phone Numbers: MIN Lab: 612-813-62

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 2 – 7 days

Special Instructions:

Specimen

Specimen Type:	Blood
Container:	SST (Gold, marble or red)
Draw Volume:	1.5 mL (Minimum: 0.9 mL) blood
Processed Volume:	0.5 mL (Minimum: 0.3 mL) serum
Collection:	Routine blood collection
Special Processing:	Lab staff: Centrifuge specimen, remove serum aliquot to a plastic screw-capped vial. Store and ship refrigerated.
Patient Preparation:	Patient must be fasting for 12-14 hours
Sample Rejection:	Mislabeled or unlabeled specimens

Interpretive**Reference Range:**

Analyte:	Reference Range: (nmol/mL)
Total Cholic acid	< or =5.00
Total Chenodeoxycholic acid	< or =6.00
Total Deoxycholic acid	< or =6.00
Total Ursodeoxycholic acid	< or =2.00
Total Bile acids	< or =19.00
Interpretation: Total bile acids are metabolized in the liver and can serve as a marker for normal liver function. Increases in serum bile acids are seen in patients with acute hepatitis, chronic hepatitis, liver sclerosis, liver cancer, and intrahepatic cholestasis of pregnancy.	

Critical Values:	N/A
Limitations:	This test does not measure sulfated bile acids.
Methodology:	Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)
References:	Mayo Clinic Laboratories (August 2020)

