# Abnormal Liver Function Test (LFT) Results

**Developed by**

American Gastroenterological Association (AGA) and the American Association for the Study of Liver Disease (AASLD)

**How developed**

A consensus panel was convened by the two organizations. Literature was reviewed (see below) and recommendations were established.

- Friedman LS. Approach to the patient with abnormal liver biochemical and function tests. *Up to Date*; November 12, 2013.

**Additional essential patient information**

- Clinical history of liver disease
- Duration of abnormal LFTs
- Prior history of hepatitis or liver disease?
- Does the patient have associated abdominal pain?
- Does the patient engage in high-risk behavior? (e.g. alcohol abuse, multiple sexual partners, IV drug use, etc.)
- List any new medications or supplements?
- Laboratory studies
- CBC including platelet count
- Complete metabolic profile (electrolytes, renal function, AST, ALT, Alkaline Phosphatase, Bilirubin)
- Protime/INR
### Abnormal Liver Function Test (LFT) Results *(continued)*

| Additional patient information, if available | • Clinical history  
• Has the patient previously been vaccinated for Hepatitis A? {yes/no}  
• Has the patient previously been vaccinated for Hepatitis B? {yes/no}  
• Has the patient previously been treated for Hepatitis B or C? {yes/no}  
• If yes, which medications and when  
• Laboratory Tests  
• Acetaminophen level  
• ANA  
• AMA  
• Anti-smooth muscle antibody  
• Alpha Feto Protein (AFP)  
• Alpha-1 antitrypsin  
• Ceruloplasmin  
• Hepatitis A serologies (HAV total, IgG Ab, or IgM)  
• Hepatitis B serologies (HBsAg, HBsAb, HB core IgM)  
• Hepatitis C antibody  
• Hepatitis C RNA Viral Load  
• Hepatitis C genotype  
• Iron and TIBC  
• Ferritin  
• Liver/kidney microsomal antibodies  
• TIBC  
• HIV  
• Toxicology screen  
• TSH  
• Quantitative immunoglobulins  
• Paracentesis results  
• Imaging studies  
• RUQ Ultrasound with dopplers  
• Abdominal CT  
• Abdominal MRI  
• Liver Elastography  
• Nuclear scan  
• Endoscopic examination  
• EGD  
• ERCP |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Alarm symptoms/conditions</td>
<td>A patient with encephalopathy, gastrointestinal bleeding, coagulopathy or worsening ascites with pulmonary compromise should be referred for urgent evaluation.</td>
</tr>
<tr>
<td>Tests/procedures to avoid prior to consult</td>
<td>None provided</td>
</tr>
<tr>
<td>Common rule-outs to consider prior to consults</td>
<td>None provided</td>
</tr>
<tr>
<td>Relevant &quot;Choosing Wisely&quot; elements</td>
<td>None provided</td>
</tr>
</tbody>
</table>
### Abnormal Liver Function Test (LFT) Results *(continued)*

<table>
<thead>
<tr>
<th>Healthcare professional and/or patient resources</th>
<th>Healthcare Professional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><a href="http://www.bcguidelines.ca/pdf/liver.pdf">http://www.bcguidelines.ca/pdf/liver.pdf</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Patient Information</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><a href="http://www.patient.co.uk/health/liver-function-tests">http://www.patient.co.uk/health/liver-function-tests</a></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.medicinenet.com/liver_blood_tests/article.htm">http://www.medicinenet.com/liver_blood_tests/article.htm</a></td>
</tr>
<tr>
<td></td>
<td><a href="http://www.webmd.com/a-to-z-guides/liver-function-test-lft">http://www.webmd.com/a-to-z-guides/liver-function-test-lft</a></td>
</tr>
</tbody>
</table>