Hepatitis is a general term referring to inflammation of the liver. The usual cause is viral, in Hepatitis A, B, or C. However, toxins and drugs may also induce a Hepatitis. The onset of hepatitis may be gradual or sudden. Symptoms can include: loss of appetite, nausea, fatigue, fever, vague abdominal discomfort, jaundice (yellowing of the skin), muscle aches and dark urine. Because the symptoms can be mild, some people are not aware that they have had a bout of hepatitis. The liver enzymes (especially AST/SGOT and ALT/SGPT) tend to rise significantly. The serum bilirubin level also rises and is what causes the yellowing of the skin often associated with hepatitis. Blood tests are available for the determination of Hepatitis A, B, and C as the cause of the liver abnormality.

**Hepatitis A** is usually transmitted through a food or water source. The disease is quite contagious and there have been several large outbreaks, particularly in restaurants and day care centers. The incubation period (time from exposure to actual illness) is 3-5 weeks. Most cases of Hepatitis A are self limited and resolve spontaneously. Hepatitis A does not progress to chronic liver disease.

**Hepatitis B** is inflammation of the liver due to infection with hepatitis B virus (HBV). Hepatitis B infection is a common condition with more than half of the population of the world chronically infected. The incidence of chronic infection in the United States is about 2%.

Transmission of HBV is by blood, birth, and sex. One-half of new infections are mild unrecognized events. The other one-half are clinically significant illnesses with jaundice and elevated liver function tests. Occasionally acute hepatitis B is a fulminating disease that may terminate in death. Persons infected as adults are likely to recover spontaneously and become immune (90%). Persons infected before five years of age are likely to become carriers (90%). The incidence of new infections is decreasing mainly due to widespread administration of a vaccine that has been available since the early 1980s.

Infection persisting more than six months is chronic hepatitis. Persons with chronic hepatitis B may develop cirrhosis (end stage liver disease) after 25 years of infection and liver cancer after 30 years of infection. For these reasons, chronic hepatitis B is frequently declined for life insurance. To be considered for life insurance a client must be recovered, in a carrier state, or have only a mild form of hepatitis.

Blood tests showing elevated transaminases, especially ALT (SGPT), are often the first laboratory sign of hepatitis B infection. These blood liver tests can fluctuate over time in the same individual.

Other blood tests include:

- HBsAg – HBV present
- HBsAb – immunity to HBV
- HBeAg – HBV infection with active viral replication
- Polymerase chain reaction (PCR) – measures the viral load of genetic material of HBV
**Hepatitis C** is inflammation of the liver due to a virus infection called hepatitis C (HCV) virus. Prior to the identification of the virus it was called nonA nonB hepatitis. Hepatitis C is a common infection with up to 6% of the United States population affected. Up to 15% of those infected have spontaneous recovery, and have no virus in their blood. The remaining 85% have chronic hepatitis C. Chronic viral hepatitis can lead to cirrhosis (end stage liver disease) in 25 years or can lead to liver cancer in 35 years. For these reasons, chronic hepatitis C is frequently declined for life insurance. To be considered for life insurance, a client must be cured or have a “mild case.” HCV infection is spread mainly by blood transmission. Many cases of Hepatitis C are due to intravenous drug use. Body piercing, tattooing, occupational needle sticks, hemodialysis, transfusion prior to 1992, and intranasal cocaine (small amount of blood on coke straw) are other blood borne risks. Sexual and perinatal transmission have been documented. The route of transmission is often unknown or not admitted. Acute hepatitis C is usually a mild disease, which is rarely clinically recognized. Infection persisting more than six months or of unknown duration is considered chronic hepatitis C. Blood tests showing elevated transaminases, especially ALT (SGPT), are often the first laboratory sign of hepatitis C. The blood liver tests can fluctuate over time in the same individual. Other blood tests include: Anti-HCV test – antibody test for hepatitis C virus Polymerase chain reaction (PCR) – measures genetic material of HCV.

**Hepatitis B and C Testing**

Non-invasive imaging tests include:
- CT scan – provides anatomic information such as size and shape of the liver.
- Ultrasound – provides similar information.

Invasive testing includes:
- Liver biopsy – examines a piece of liver for cell damage and scarring.

Any alcohol intake increases the rate of progression to fibrosis, cirrhosis, or cancer. Persons with hepatitis B or C plus another liver impairment are not usually insurable.

When antiviral drug treatment is indicated, interferon alfa-2b is the usual choice. Studies suggest a sustained response in many individuals with drug therapy. Relapse is unlikely if the person tests negative for circulating virus beyond one year after treatment.

**Underwriting Action** will depend upon which type of hepatitis the applicant has. A history of Hepatitis A, once completely resolved, will not be rated. Likewise, a history of Hepatitis B, if completely resolved and no evidence of being a chronic carrier of Hepatitis B, will be non-rated. If the Hepatitis B surface antigen remains positive but all liver enzymes are normal, the rating will be Table B. Cases of cirrhosis or chronic Hepatitis B or C will usually be declined for individual coverage. If “cured” of the viremic state by interferon or anti-viral treatment, documented by at least 2 test results, the most recent being at least 1 year out from treatment, then a Table B rating will apply.

**Examples for Hepatitis B:**
- A client > 40 yrs old with (+) HBsAg, but normal LFTs, would not be rated. If viral load testing has been done, it must be negative.
- A client age 41 with (+) HBsAg plus mildly elevated (that is, < 2x normal) liver tests, viral load less than 5,000,000 (if done), and no more than mild changes on liver biopsy would be rated Table E. There can be no ratable alcohol history and no more than two drinks per day.

**Examples for Hepatitis C:**
- A client with (+) HCV antibody, but with normal LFTs and negative viral loads (minimum: two tests at least 3 months apart with at least one that is 1 year from end of treatment), would not be rated.
- A client age 41 with (+) HCV antibody plus mildly elevated (that is, <2x normal) liver tests, viral load no more than 5 million, and no more than mild changes on liver biopsy would be rated Table E. There can be no ratable alcohol history and no evidence of current consumption.
### Ask “Rx”pert Underwriter (Ask Our Expert)

After reading the *Rx for Success* on Hepatitis, use this form to Ask “Rx”pert Underwriter for an informal quote.

<table>
<thead>
<tr>
<th>Producer ____________________________</th>
<th>Phone ____________________________</th>
<th>Fax ____________________________</th>
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</thead>
<tbody>
<tr>
<td>Client ______________________________</td>
<td>Age/DOB __________________________</td>
<td>Sex ____________________________</td>
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If your client has had hepatitis B or C, please answer the following:

1. **Please list date of diagnosis.**

2. **Please give the date and results of the most recent liver enzyme tests.**
   - a) AST/SGOT ____________________________
   - b) ALT/SGPT ____________________________
   - c) GGTP _________________________________

3. **Is your client on any medications?**
   - □ Yes. Please give details. ____________________________
   - □ No

4. **Does your client drink alcohol?**
   - □ Yes. Please note amount and frequency. ____________________________
   - □ No

5. **Please provide all MRI brain scan reports.**
   - a) Liver ultrasound or CT scan □ Normal □ Abnormal
   - b) Liver biopsy □ Normal □ Abnormal
   - c) Viral load, e.g., PCR, HBV-DNA ____________________________

6. **Has your client been diagnosed with any of the following?**
   - □ Chronic hepatitis
   - □ Cirrhosis

7. **Has your client been treated with interferon or other anti-viral drugs?**
   - □ Yes. Please give details. ____________________________
   - □ No

8. **Does your client have any other major health problems (e.g., cancer, etc.)?**
   - □ Yes. Please give details. ____________________________
   - □ No