

a series of fact sheets written
by experts in the field of liver
disease

**Newer Version
Available.
Click Here.**

HCV Diagnostic Tools: Grading & Staging a Liver Biopsy

Alan Franciscus, Editor-in-Chief

The liver biopsy is an important diagnostic tool because it is considered the most precise procedure we have today for evaluating the health of the liver by measuring the degree of liver inflammation and staging of fibrosis for predicting disease progression and treatment outcome.

The liver biopsy involves taking a very small specimen of liver tissue. The specimen is usually sent to a pathologist for evaluation. It is very important that this procedure and all lab tests are interpreted by a medical provider. With this in mind, the information below is provided to help people understand the grading and staging of a biopsy

Grading and Staging

There are a variety of ways to interpret a liver biopsy. The most common scoring methods include Metavir and histologic activity index (HAI) also called the Knodell. It is

important to remember that the length of the liver specimen and the knowledge of the professional reading the biopsy can influence the interpretation of the report.

Metavir

The Metavir scoring system was specially designed for patients with hepatitis C. The scoring consists of using a grading and a staging system. The *grade* gives an indication of the activity or amount of inflammation and the *stage* represents the amount of fibrosis or scarring.

The grade is assigned a number based on the degree of inflammation, which is usually scored from 0-4 with 0 being no activity and 3 or 4 considered severe activity. The amount of inflammation is important because it is considered a precursor to fibrosis.

The fibrosis score is also assigned a number from 0-4:

- 0 = no scarring
- 1 = minimal scarring
- 2 = scarring has occurred and extends outside the areas in the liver that contains blood vessels
- 3=bridging fibrosis is spreading and connecting to other areas that contain fibrosis
- 4=cirrhosis or advanced scarring of the liver

Knodell

The Knodell score or histologic activity index (HAI) is also commonly used to stage liver disease. It is a somewhat more complex process, but some experts believe that it is a better tool for defining the extent of liver inflammation and damage. It is composed of four individually assigned numbers that make up a single score. The first component (periportal and/or bridging necrosis) is scored 0-10. The next two components (intralobular degeneration and portal inflammation) are scored 0-4. The combination of these three markers indicates the amount of inflammation in the liver:

- 0 = no inflammation
- 1-4 = minimal inflammation
- 5-8 = mild inflammation
- 9-12 = moderate inflammation
- 13-18 = marked inflammation



HCSP Hepatitis C Factsheets

English

- Hepatitis C: The Basics
- Testing Positive
- Herbs and Hepatitis C
- Living with Hepatitis C
- Sexual Transmission
- Managing Side Effects
- Disclosure
- Getting Disability Benefits
- Personal Care
- An Introduction to the Liver
- Reading a Lab Report: A Basic Primer
- HCV Viral Load Tests
- HIV/HCV Coinfection: What You Need to Know
- Liver Biopsy
- Occupational Exposure
- Finding an HCV Support Group

Français

- Hépatite C : Notions de base
- Révélation
- Positif : Qu'arrive-t-il maintenant?
- Tests de la charge virale du VHC
- VIH/VHC Co-infection
- La transmission par voie sexuelle de l'hépatite C
- Prévention de la transmission du VHC
- Traitement des effets secondaires de la thérapeutique
- Comment interpréter un rapport de laboratoire

Español

- VHC Conceptos Básicos
- Cómo interpretar los resultados de una alalítica: guía básica
- Cómo manejar los efectos secundarios del tratamiento para el VHC
- La prueba ha salido positivo ¿Y ahora qué?
- Introducción sobre el hígado
- Hierbas y Hepatitis C
- Transmisión Sexual de la Hepatitis C
- Cómo Conseguir los Subsidios de Discapacidad por el VHC
- Concedidos por la Seguridad Social
- Vivir con Hepatitis C
- Hepatitis C: Cómo Revelar la Noticia
- Prevención de la Transmisión del VHC
- Hepatitis A: Lo que Necesita Saber

The fourth component indicates the amount of scarring in the liver and is scored from 0 (no scarring) to 4 (extensive scarring or cirrhosis).

Information about the grade and stage of liver disease is helpful for the healthcare provider and the patient in guiding medical management. For example, treatment is usually indicated if the Metavir score is greater than or equal to 2 or the Ishak/Knodell score is greater than or equal to 3. It is important to know this information in order to help guide management and treatment of HCV. For example, if a medical provider is able to estimate the approximate time when someone became infected with HCV, the results of the biopsy will give an indication of the rate of disease progression:

- For people with moderate to severe liver damage it is generally recommended that a more aggressive treatment approach is warranted.
- For people with a milder form of liver disease a watch and wait approach is usually recommended.


However, given that people with milder liver disease respond better to current HCV therapies some experts believe that people with milder forms of HCV liver disease should be treated.

Sound confusing? Probably the best advice is to work closely with your medical provider to find out whether treatment is needed or not!

For more information about hepatitis C, hepatitis B and HCV coinfections, please visit www.hcvadvocate.org.

• *hcspFACTsheet* •
A publication of the Hepatitis C Support Project

<p>Executive Director Editor-in-Chief, HCSP Publications Alan Franciscus</p> <p>Design Paula Fener</p> <p>Production C.D. Mazoff, PhD</p> <p>Contact information: Hepatitis C Support Project PO Box 427037 San Francisco, CA 94142-7037 alanfranciscus@hcvadvocate.org</p>	<p>The information in this fact sheet is designed to help you understand and manage HCV and is not intended as medical advice. All persons with HCV should consult a medical practitioner for diagnosis and treatment of HCV.</p> <p>This information is provided by the Hepatitis C Support Project • a nonprofit organization for HCV education, support and advocacy • © 2007 Hepatitis C Support Project • Reprint permission is granted and encouraged with credit to the Hepatitis C Support Project.</p>
--	---



HCV ADVOCATE
www.hcvadvocate.org