

Three common types are caused by viruses:

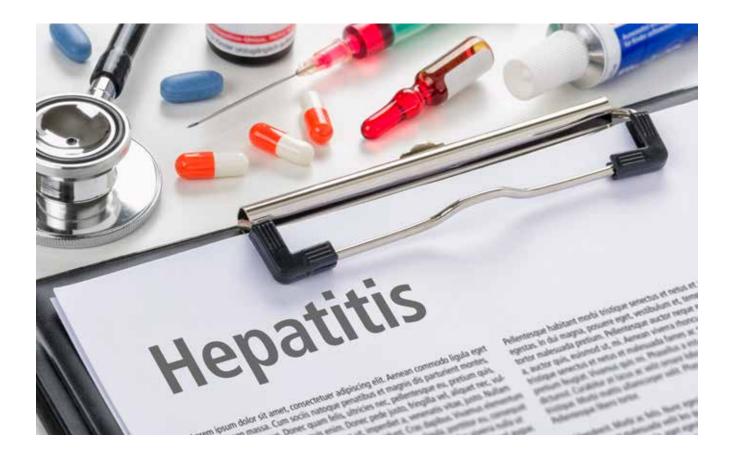
- ▶ Hepatitis A virus causes hepatitis A.
- ▶ Hepatitis B virus causes hepatitis B.
- ▶ Hepatitis C virus causes hepatitis C.

These three can be **acute**. Hepatitis B and C can become **chronic**.

Acute viral hepatitis:

- Is caused by hepatitis A, B, and C viruses.
- Usually occurs within a few weeks after you have the virus
- Can be mild, severe or even life-threatening.
- ▶ Hepatitis B or C may lead to long-term (chronic) infection.

Chronic hepatitis B and C are serious health problems.



Chronic viral hepatitis:

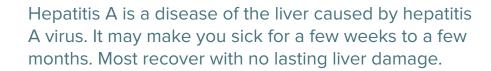
- May be lifelong.
- Can cause liver damage, cirrhosis (scarring of the liver), and liver cancer.
- Often is caused only by hepatitis B and C viruses.

There are safe and effective vaccines for hepatitis A and B.

What are the signs of hepatitis?

You may not have any sign of hepatitis. Or, you may have:

- Yellow skin or eyes (jaundice).
- Tiredness.
- Fever.
- Nausea.
- Vomiting.
- Loss of appetite.
- Stomach pain.
- Light stools.
- Dark urine.



Hepatitis A

How is it spread?

Hepatitis A is spread by contact with the hepatitis A virus. This includes:

- Contact with any person infected with the hepatitis A virus.
- Oral-anal sexual contact with an infected person.
- ▶ Touching contaminated surfaces and then placing your hands near or in your mouth.
- Sharing forks, spoons, knives, and other utensils that have virus on them.

Those with hepatitis A can spread it to others a few weeks before they begin to feel bad.

- ▶ Eating food or drinking water that has been contaminated by feces that contain the virus. These can include:
 - Fruits.
 - Vegetables.
 - Shellfish.
 - Ice.
 - Water.

In the United States, chlorine in water kills hepatitis A virus. But infected food workers can still spread it directly to food. This occurs when hands are not washed or cleaned and food is handled.

Who is at risk of hepatitis A?

In the U.S., you are at a higher risk if you:

- ▶ Have not been vaccinated for hepatitis A.
- Use illegal drugs, whether injected or not.
- Live with someone who has hepatitis A.
- ▶ Have bleeding problems and take certain medicines for blood clotting.
- Have oral-anal sexual contact with someone who has hepatitis A.
- Travel to areas that have high rates of hepatitis A.

Travel to Africa, Asia, Eastern Europe, or Central and South America, including Mexico, increases the risk of getting hepatitis A.

What are signs of hepatitis A?

Hepatitis A does not always cause you to feel bad. It may make you sick for a few weeks to a few months. Older people can get sicker when they have it. Young children usually do not show any signs. Signs include:

- Yellow skin or eyes (jaundice).
- ▶ Tiredness.
- **Fever**
- Nausea.
- Vomiting.
- Loss of appetite.
- Stomach pain.
- Light stools.
- Dark urine.
- Diarrhea.

Symptoms can show 2 to 6 weeks after contact with the virus.



How do you know if you have hepatitis A?

The only way to know if you have it is by seeing a health care provider (HCP). S/he may take a sample of your blood to test.

How is it treated?

There are no medicines for treating hepatitis A. If you have been recently exposed to the virus, tell your HCP. Most people recover by resting and drinking plenty of fluids. A few people will need to be hospitalized.

What can happen if you have hepatitis A for a long time?

Most people improve without treatment and have no lasting liver damage. Signs usually last less than 2 months. Some can be ill for as long as 6 months. The virus can cause liver failure and death mostly in:

- People 50 years of age or older.
- People with other liver diseases, such as hepatitis B or C.

If you have hepatitis A:

- ▶ Get plenty of rest.
- ▶ Eat healthy foods.
- Drink plenty of fluids.
- Avoid drinking any alcohol.
- ▶ Check with your HCP before taking:
 - Medicines.
 - Supplements.
 - Over-the-counter drugs.

- ▶ Clean hands often, especially after using the bathroom.
- Avoid preparing food, while you are sick.
- Talk to those below so they can learn more to protect themselves:
 - Household contacts.
 - Sexual contacts.
 - Playmates/attendees at childcare centers.
 - Persons sharing illegal drugs.
 - Persons sharing food or drink.
 - Coworkers and/or restaurant patrons where there is an infected food worker.





How can you avoid hepatitis A?

The best way to prevent hepatitis A is to be vaccinated. People with certain risk factors and health problems need this vaccine. Ask your doctor if the vaccine is right for you. You cannot get hepatitis A from the vaccine. The vaccine is for:

- All children at age 1 year.
- Those who use injection and non-injection illegal drugs.
- Those with chronic (lifelong) liver diseases, such as hepatitis B or hepatitis C.
- ▶ Those who take medicines for blood clotting.
- People whose work has a risk such as:
 - Sanitation workers.
 - Plumbers.
- Those who live in areas with high rates of hepatitis A infection.
- Travelers to countries that have high rates of hepatitis A. These include:
 - Africa.
 - Asia.
 - Latin America.
 - South America.
 - Eastern Europe.

Learn more at the CDC's Travelers' Health site wwwnc.cdc.gov/travel/yellowbook/2012/chapter-3infectious-diseases-related-to-travel/hepatitis-a.htm.

Other ways to avoid hepatitis A, especially if you have not been vaccinated:

- Consider boiling water or drinking bottled water if you live in a place with untreated water.
- ▶ Eat cooked foods and fruits that you can peel.
- Avoid eating uncooked vegetables or fruits that could have been washed with dirty water, such as lettuce.
- Avoid eating raw or steamed shellfish such as oysters. Shellfish may live in dirty water.
- Use condoms correctly and every time you have sex.
- Dean hands often.

Getting vaccinated is the best way to prevent hepatitis A.

Learn more:

Department of Veterans Affairs (VA):

Hepatitis A Basics

https://www.hepatitis.va.gov/patient/hav/index.asp

Centers for Disease Control and Prevention (CDC):

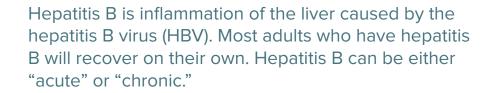
Hepatitis A Information for the Public

www.cdc.gov/hepatitis/A/

National Institute for Allergy and Infectious Diseases (NIAID/NIH):

Hepatitis A

www.nigid.nih.gov/topics/hepatitis/hepatitisg/Pages/Default.asp.



Hepatitis B

Acute Hepatitis B virus infection is a short-term illness that occurs within the first 6 months after exposure to the Hepatitis B virus. Acute infection can — but does not always — lead to chronic infection.

Chronic Hepatitis B virus infection is a long-term illness that occurs when the Hepatitis B virus remains in a person's body.

How is it spread?

Hepatitis B virus is spread by contact with body fluids that carry the virus, such as:

- ▶ Blood.
- Semen.
- Vaginal fluids.
- Other body fluids.

Contact with infected body fluids can spread hepatitis B. It is mostly spread by:

- Sexual contact: (This is the most common way it is spread in the U.S.).
 - Vaginal and anal sex.
 - Sharing unclean sex toys.
 - Body fluids with hepatitis B can enter tiny breaks or rips in the linings of the vagina, vulva, rectum, or mouth. Rips and tears in these areas can be common and often unnoticed.
- Needle sharing:
 - Used or unclean needles.
 - During illegal drug or drug equipment use.

- Contact with blood:
 - Open sores of an infected person.
 - Sharing items such as razors or toothbrushes with an infected person.
 - Being tattooed or pierced with tools that were not properly cleaned.
 - During occupational exposures to needles, splashes of blood, and body fluids.
 - During blood transfusions given before 1975 (since then all blood is screened).
- You may have hepatitis B from before you were born:
 - Hepatitis B can spread to babies during pregnancy, birth, and during breastfeeding.
- There is no risk of getting hepatitis B when **donating** or **giving** blood.



Men are 6 times more likely to become chronic carriers

Who is at risk of hepatitis B?

Anyone can get hepatitis B. However, in the U.S., you may be at a higher risk if you:

- Have not been vaccinated for hepatitis B.
- Have sex partners that have hepatitis B.
- ▶ Have HIV or hepatitis C.
- Share needles, syringes, or other drug-injection equipment.
- Live with someone who has hepatitis B.
- ▶ Have a weak immune system.
- Have diabetes.
- Work in health care or public safety and are exposed to blood or body fluids on the job.
- Are an infant born to an infected mother.
- Travel to areas that have moderate to high rates of hepatitis B (see: wwwnc.cdc.gov/travel/ yellowbook/2010/chapter-2/hepatitis-b.aspx#363).
- Are a man who has sex with men.

What are signs of hepatitis B?

When you first get hepatitis B, it is called **acute** hepatitis B. Most adults who have it will recover on their own. However, children and some adults can develop **chronic** (lifelong) hepatitis B.

Acute hepatitis B: Signs of acute hepatitis B can appear within 3 months after you get the virus. These signs may last from several weeks to 6 months. Most adults have signs of acute hepatitis B virus infection. Many young children do not show any signs. Signs include:

- Yellow skin or eyes (jaundice).
- Tiredness.
- Fever.
- Nausea.
- Vomiting.
- Loss of appetite.
- Stomach pain.
- Light stools.
- Dark urine.
- Joint pain.

Chronic hepatitis B: Hepatitis B is chronic when the body can't get rid of the virus. Children, mostly infants, are more likely to get chronic hepatitis B than adults. People with chronic hepatitis B may have no signs for as long as 20 or 30 years. Signs may be the same as acute hepatitis B. There may also be signs of liver damage and cirrhosis such as:

- Weakness.
- Weight loss.
- ▶ Small, red, spider-like blood vessels on the skin.
- ▶ Confusion or problems thinking.
- Loss of interest in sex.
- Swollen stomach or ankles.
- A longer than normal amount of time for bleeding to stop.

How do you know if you have hepatitis B?

The only way to know if you have hepatitis B is by seeing a health care provider (HCP). S/he may take a sample of your blood. There are several blood tests to see:

- If it is an acute or a chronic infection.
- If you have recovered from infection.
- If you are immune to hepatitis B.
- If you could benefit from vaccination.

How is it treated?

Acute hepatitis B: Your HCP may suggest rest, good nutrition, and fluids. S/he may give you a type of protein that may help fight the virus. Some people may need to go to the hospital.

Chronic hepatitis B: People with chronic hepatitis B should seek care from a HCP experienced in treating hepatitis B. These can be:

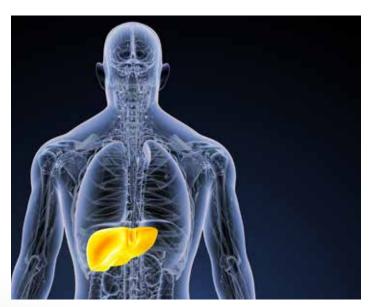
- Some primary care providers.
- Infection specialists.
- Gastroenterologists (digestive system specialists).
- ▶ Hepatologists (liver specialists).

If you have chronic hepatitis B, get checked regularly for signs of liver damage. Talk with your HCP about treatment. Not every person with chronic hepatitis B needs treatment. If you show no signs of liver damage, your provider will continue to check for liver problems.

What can happen if **chronic** hepatitis B is not treated?

Chronic hepatitis B is a serious disease that can result in long-term health problems. Up to 1 in 4 people with it have serious liver problems. These include:

- Liver damage and scarring (cirrhosis).
- Liver failure.
- Liver cancer.
- Death.



Human Liver

If you have hepatitis B:

- See your health care provider regularly.
- Tell current and recent sex partners that you have hepatitis B.
- Get plenty of rest.
- ▶ Eat healthy foods.
- Drink plenty of fluids.
- Avoid drinking any alcohol. There are ways to help you stop drinking alcohol at: www.hepatitis. va.gov/patient/alcohol/what-you-can-do. asp or https://www.mentalhealth.va.gov/resvatreatmentprograms.asp.

- ▶ Check with your HCP before taking:
 - Prescription medicines.
 - Vitamins or supplements.
 - Over-the-counter drugs.
- Avoid spreading hepatitis B to others by:
 - Having safer sex and using condoms during all sexual contact.
 - Not sharing used or unclean needles and sex toys.
 - Not donating blood, blood products, or organs.
 - Cleaning all blood spills even those that have already dried. Use a mixture of bleach and water (one part household bleach to 10 parts water).
 Even dried blood is a risk to others.
 - Not sharing personal care items like razors, toothbrushes, nail clippers or earrings.
 - Not sharing glucose-monitoring equipment.
 - Asking sexual partner(s) and people living in close contact with you to be tested and vaccinated.



How can you avoid hepatitis B?

Getting the vaccine for hepatitis B is the best way to prevent it. The vaccine is safe and effective. It can take 3-4 shots over a 6-month period. You will not get hepatitis B from the vaccine. Ask your HCP if you should get this vaccine. It is recommended for adults if you:

- Have sex with or live in the same house as a person with hepatitis B virus infection.
- Have sex with more than one partner.
- Seek care in a clinic for sexually transmitted diseases, HIV testing or treatment, or drug treatment.
- Are a man who has sex with other men.
- Inject drugs.

- Have a job that involves contact with human blood.
- Are on the staff of, or a client in, a facility for the developmentally disabled.
- Are a hemodialysis patient or have end-stage renal disease
- ▶ Have HIV infection.
- Are a dialysis patient.
- ▶ Have chronic liver disease.
- Have diabetes and are under age 60.
- Seek care in a clinic for sexually transmitted diseases, HIV testing, or drug treatment.
- Live or travel for more than 6 months a year in countries where hepatitis B is common (see **wwwnc. cdc.gov/travel/yellowbook/2010/chapter-2/hepatitis-b.aspx#363**).

Travelers at increased risk for infection include:

- Adventure travelers.
- ▶ Peace Corps volunteers.
- Missionaries.
- Military personnel.

Theses may raise the risk for hepatitis B for travelers:

- An injury or illness that breaks the skin such as shots, fluids in the vein, transfusion, stitches, and surgery.
- Dental treatment.
- ▶ Unprotected sexual contact.
- ▶ Sharing syringes or drug injection equipment.
- ▶ Tattooing, ear piercing, or acupuncture that break the skin.
- Manicures and pedicures which may break the skin.
- Sharing certain items such as earrings, razors, toothbrushes and nail clippers.

Other ways to avoid hepatitis B:

- Avoid sexual contact.
- Have safer sex:
 - Reduce the number of sexual partners.
 - Condoms, when used correctly, can reduce the risk of getting hepatitis B. Each time you have sex use a condom (male or female type):
 - During vaginal sex.
 - During anal sex.
 - During oral sex.
 - Have sex with only one partner who does not have sex with others and does not have hepatitis B.
- Now that other forms of birth control do not protect against hepatitis B.
- Not using or injecting drugs.
- Not reusing or sharing syringes or drug equipment.
- Wear gloves if you have to touch another person's blood.
- Do not use another person's toothbrush, razor, nail clippers or any other item that might have even a tiny bit of blood on it.
- Make sure any tattoos or body piercings are done under good conditions, using:
 - Sterile tools.
 - Clean hands and single use gloves.
 - Disinfected work surfaces.

The hepatitis B vaccine is the best way to prevent hepatitis B.



Learn more:

Department of Veterans Affairs (VA):

Hepatitis B Basics

www.hepatitis.va.gov/patient/basics/hepatitisB-index.asp

Centers for Disease Control and Prevention (CDC):

Hepatitis B Information for the Public

/www.cdc.gov/hepatitis/B

Infectious Diseases Related to Travel; Hepatitis B

wwwnc.cac.gov/travei/yeiiowbook/2010/cnapter-2/nepatitis-b.aspx#363/

Protect Your Baby for Life; When a Pregnant Woman Has Hepatitis B

www.cdc.gov/hepatitis/HBV/PDFs/HepBPerinatal-ProtectWhenPregnant-BW.pdf

National Institute of Allergy and Infectious Diseases (NIAID/NIH):

Hepatitis B

www.niaid.nih.gov/topics/hepatitis/hepatitisb/Pages/Default.aspx

National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK/NIH):

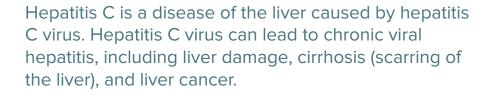
What I need to know about Hepatitis B

diaestive.niddk.nih.aov/ddiseases/pubs/hepb_ez/

U.S. National Library of Medicine:

Cirrhosis

www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001301/



Hepatitis C

How is it spread?

Hepatitis C is mostly spread by blood from an infected person from:

- ▶ Sharing needles or other equipment to inject drugs.
- Needle sticks with unclean needles.
- ▶ Sharing items that may have come in contact with blood, such as razors, nail clippers, pierced earrings and toothbrushes.
- ▶ Being tattooed or pierced with uncleaned tools that were used on an infected person.
- Having sexual contact with a person who has the hepatitis C virus. The risk of getting it from sexual contact is thought to be low.

Hepatitis C is rarely spread from a blood transfusion because:

- Hepatitis C tests are done on all donated blood since 1992.
- There is no risk of getting hepatitis C when donating blood.

Hepatitis C is not spread by kissing, hugging, coughing, or sharing food and eating utensils.

Who is at risk of hepatitis C?

Anyone can get hepatitis C. Those at high risk should be tested and treated. In the U.S., you are at a higher risk if you:

- Were born between 1945 and 1965.
- ▶ Have ever used a needle to inject drugs, even if once and long ago.
- ▶ Had a blood transfusion or organ transplant before 1992.
- ▶ Have ever been on kidney dialysis.
- Were born of a mother who had hepatitis C at the time.
- Are a Vietnam-era Veteran.
- ▶ Had contact with hepatitis-C-positive blood to nonintact skin or to mucous membranes.
- Received tattoos or body piercings in non-regulated settings.
- Have ever snorted drugs or shared equipment.
- Have liver disease.
- ▶ Have abnormal liver tests.
- ▶ Have a history of alcohol abuse.
- ▶ Have hemophilia and received medicine for blood clotting before 1987.
- Have had a sexual partner with hepatitis C, now or in the past.
- ▶ Have had 10 or more lifetime sexual partners.
- Have HIV.

The only way to know if you have Hepatitis C is to be tested. See your health care provider.

What are signs of hepatitis C?

When you first get hepatitis C, it is called **acute** hepatitis C. About 15% of people who have **acute** hepatitis C infection clear the virus from their bodies. The other 85% of people develop a **chronic** (lifelong) hepatitis C infection. New medications to treat hepatitis C have a very high cure rate.



Hepatitis Virus

Acute hepatitis C: Most people with acute hepatitis C do not show signs. If signs occur, the average time is 6–7 weeks after exposure, but can be less or more. Some people can have mild to severe signs like:

- Yellow skin or eyes (jaundice).
- Tiredness.
- Fever.
- Nausea.
- Vomiting.
- Loss of appetite.
- Stomach pain.
- Light stools.
- Dark urine.

Chronic hepatitis C: Millions of people in the United States have chronic hepatitis C infection. Most do not know they are infected. They don't look or feel sick until the virus causes liver damage. This can take 10 years or more to happen. Signs may be the same as acute hepatitis C. There may also be signs of liver damage and cirrhosis such as:

- Weakness.
- Weight loss.
- ▶ Small, red, spider-like blood vessels on the skin.
- ▶ Confusion or problems thinking.
- Loss of interest in sex.
- Swollen stomach or ankles.
- A longer than normal amount of time for bleeding to stop.

How do you know if you have hepatitis C?

The only way to know if you have hepatitis C is by a medical exam. Blood tests can tell you:

- If it is acute or chronic infection.
- If you have recovered from infection.
- If you could benefit from vaccination for hepatitis A and B.

In some cases, your health care provider (HCP) may take a liver biopsy. A needle is used to remove a tiny piece of liver. This will help to know the degree of liver damage.

How is it treated?

Chronic Hepatitis C is curable. If you have chronic hepatitis C infection, your HCP will examine you for liver problems. Talk to your HCP about treatment that can:

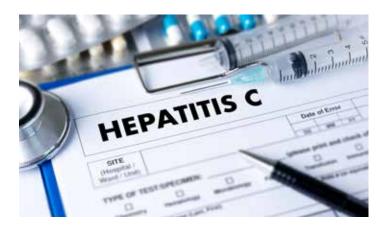
- ▶ Clear the virus from the body.
- ▶ Slow down or prevent liver damage.
- Lower the chance of getting cirrhosis and liver cancer.

Talk with your HCP about all options before treatment. Treatment may not be for everyone. Some patients might not need it. Others might not be able to be treated due to other medical problems.

What can happen if hepatitis C is not treated?

Of every 100 persons infected with HCV, approximately:

- ▶ 75–85 will go on to develop chronic infection.
- ▶ 60–70 will go on to develop chronic liver disease.
- ▶ 5–20 will go on to develop cirrhosis over a period of 20–30 years.



1–5 will die from the consequences of chronic infection (liver cancer or cirrhosis) Chronic hepatitis C infection is the leading cause of liver cancer and cirrhosis in the U.S. Cirrhosis is scarring of the liver which causes it to not work well. Both liver cancer and cirrhosis can be fatal. A liver transplant may be needed if chronic hepatitis C causes the liver to fail.

If you have hepatitis C:

- See your HCP regularly.
- ▶ Tell current and recent sex partners.
- Get vaccinated against hepatitis A and B.
- Get plenty of rest.
- ▶ Eat healthy foods.
- Drink plenty of fluids.

- Avoid drinking any alcohol. There are ways to help you stop drinking alcohol at: www.hepatitis. va.gov/patient/alcohol/what-you-can-do. asp or https://www.mentalhealth.va.gov/resvatreatmentprograms.asp.
- ▶ Check with your HCP before taking:
 - Prescription drugs.
 - Vitamins and supplements.
 - Over-the-counter drugs.
- Avoid spreading hepatitis C to others by:
 - Having safer sex and using condoms during all sexual contact.
 - Not sharing used or unclean needles and sex toys.
 - Not donating blood, blood products, or organs.
 - Cleaning all blood spills even those that have already dried. Use a mixture of bleach and water (one part household bleach to 10 parts water).
 Even dried blood is a risk to others.
 - Not sharing personal care items like razors, toothbrushes, nail clippers or earrings.
 - Not sharing glucose-monitoring equipment.
 - Asking your sexual partner(s) to be tested for hepatitis C (and perhaps other infections).

If you have hepatitis C, you can prevent liver damage by not drinking alcohol. Get vaccinated for hepatitis A and B.

How can you avoid hepatitis C?

Right now there is no vaccine to protect you against hepatitis C. You can take steps to protect yourself:

- Never share needles, syringes, water, or "works" for intravenous drug use, to inject steroids, or cosmetic substances.
- Get vaccinated against hepatitis A and B if you use drugs.
- Consider VA substance use and recovery services if you use drugs.
- ▶ Handle needles and other sharp objects safely.
- Do not use personal items that may have come into contact with an infected person's blood.

- ▶ Do not get tattoos or body piercings from an unlicensed facility or in an informal setting.
- Wear gloves if you have to touch another person's blood. Always clean hands after removing gloves.
- ► Have safer sex. Each time you have sex use a condom.



Learn more:

Department of Veterans Affairs (VA):

Hepatitis C Basics

www.hepatitis.va.gov/patient/basics/hepatitisC-index.asp

Hepatitis C medications: A review and update for patients

National Institute of Allergy and Infectious Diseases (NIAID/NIH):

Hepatitis C

www.niaid.nih.gov/topics/hepatitis/hepatitisC/Pages/Default.aspx

Centers for Disease Control and Prevention (CDC):

Hepatitis C Information for the Public

www.cdc.aov/hepatitis/C/

National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK/NIH):

What I need to know about Hepatitis C

digestive.niddk.nih.gov/ddisegses/pubs/hepc_ez/