## **Hepatitis C**

## What is hepatitis?

Hepatitis is an inflammation of the liver. Inflammation causes soreness and swelling. Hepatitis can be caused by many things. Drinking too much alcohol, abusing drugs and taking some medicines can cause hepatitis. Many viruses can cause hepatitis, too. There are 2 main kinds of hepatitis, acute hepatitis and chronic hepatitis. When a person has hepatitis, the liver may become inflamed very suddenly. This is called acute hepatitis. If you have acute hepatitis, you might have nausea, vomiting, fever and body aches. Or you may not have any symptoms. Most people get over the acute inflammation in a few days or a few weeks. Sometimes, however, the inflammation doesn't go away. When the inflammation doesn't go away, the person has chronic hepatitis.

## How does hepatitis affect the liver?

The liver breaks down waste products in your blood. When the liver is inflamed, it doesn't do a good job of getting rid of waste products. One waste product in the blood, called bilirubin (say "billy-roo-bin"), begins to build up in the blood and tissues when the liver isn't working right. The bilirubin makes the skin of a person with hepatitis turn a yellow-orange color. This is called jaundice (say "john-dis"). Bilirubin and other waste products may also cause itching, nausea, fever and body aches.

### What is hepatitis C?

Several viruses can infect the liver. Each hepatitis virus is named with a letter of the alphabet. There are 3 main types: hepatitis A, hepatitis B and hepatitis C. Hepatitis C is usually spread through contact with blood products, like accidentally being stuck with a dirty (used) needle, using IV drugs and sharing needles, or getting a blood transfusion before 1992. Most people don't feel sick when they are first infected with hepatitis C. Instead, the virus stays in their liver and causes chronic liver inflammation. Most people who are infected with hepatitis C don't have any symptoms for years. However, hepatitis C is a chronic illness (it doesn't go away). If you have hepatitis C, you need to be watched carefully by a doctor because it can lead to cirrhosis (a liver disease) and liver cancer.

# I've never used IV drugs or been stuck with a dirty needle. How did I get hepatitis C?

Many times, the cause of hepatitis C is never found. This virus may be transmitted through sex. It may also be passed from one person to another by living in the same house with someone who has hepatitis C. Sharing razors or toothbrushes may transmit the hepatitis C virus. It can be transmitted by tattoo needles. It can even be passed from a mother to her unborn baby. All of these ways of catching hepatitis C are uncommon, but they do occur.

## Could I give hepatitis C to someone else?

Yes, as far as we know, once you have hepatitis C, you can always give it to someone else. If you have hepatitis C, you can't donate blood. You should avoid sharing personal items like razors and toothbrushes. Always use a condom when you have sex. If you have hepatitis C, your sex partners should be tested to see if they also have it. Talk to your doctor first if you want to have children. The virus isn't spread easily by

sexual contact or from a mother to her unborn baby. If you're trying to have a baby, don't

have sex during the menstrual cycle, because the hepatitis C virus spreads more easily in menstrual blood.

## How should I take care of myself if I have hepatitis C?

You should eat a healthy diet and start exercising regularly. A dietitian can help you plan a diet that is healthy and practical. Talk to your doctor about medications that you are taking, including over-the-counter medications. Many medicines, including acetaminophen (brand name: Tylenol) are broken down by the liver and may increase the speed of liver damage. It is very important that you drink only a minimal amount of alcohol. An occasional alcoholic drink is probably OK, but check with your doctor first.

## Is there a vaccine for hepatitis C?

No, not for hepatitis C. There are vaccines for hepatitis A and hepatitis B. If you have hepatitis C, your doctor may want you to take the vaccine for hepatitis B (and maybe the vaccine for hepatitis A), if you don't already have these viruses. If you have hepatitis C, you are more likely to catch hepatitis A or hepatitis B, and that would cause more damage to your liver.

### A note about vaccines

Sometimes the amount of a certain vaccine cannot keep up with the number of people who need it. **More info...** 

## Is there a treatment for hepatitis C?

Medicines available for hepatitis C include interferon alfa-2a (brand name: oferon-A), interferon alfa-2b (brand names: Intron-A), interferon alfacon-1 (brand name: Infergen), interferon alfa-2b plus ribavirin (brand name: Rebetron), and interferon alfa-n1 (brand name: Wellferon). These medicines are given as an injection (a "shot") every day, every other day, or 3 times a week for several months, and sometimes longer. About 1/4 of the people who take interferon for hepatitis C feel better. These medicines don't cure hepatitis C, but they do make people feel better and may prevent future liver problems.

### What should I know about interferon?

Before you can start taking interferon, you will have a liver biopsy. A tiny bit of your liver will be taken out in a surgical operation. The doctor will check this sample of your liver to see how much damage there is. Younger patients with mild liver disease and fewer virus particles in the liver have a better response to interferon. Interferon is expensive. It costs about \$6,000 a year. You should check with your health insurance provider to see if your medical insurance will cover the cost.

## What side effects will I have from taking interferon?

The most common side effect feels like having the flu. Some people taking interferon have fevers, body aches, headaches, fatigue, irritability, nausea, vomiting, loss of sleep, sleep disturbance or changes in their blood. If you take interferon, your doctor will want to examine you regularly to keep track of the side effects. If they get too bad, you may have to stop taking interferon.

### Do I have to take interferon?

The choice is up to you and your doctor. Some people with hepatitis C don't have any symptoms. They only have a little inflammation of their liver. If you have hepatitis C but no symptoms, your doctor will want to keep a close watch on you. This is done by checking your blood at least once a year, and maybe 3 times a year. Your doctor will check the level of 2 enzymes that are made in your liver. Your doctor might decide to give you medicine for hepatitis C only if these enzymes reach a certain level.

The decision to use interferon therapy can be hard to make because of the expense and the side effects. Your doctor will pay attention to the type of the virus and the amount of the virus in your body. Your overall health and the results of your blood tests and the liver biopsy are also important to know about before your doctor gives you interferon treatment.

### For more information

American Liver Foundation 75 Maiden lane, Suite 603 New York, NY 10038-4810 Telephone: 800-GO-LIVER

Internet address: <a href="http://www.liverfoundation.org">http://www.liverfoundation.org</a>

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## **Hepatitis C:**

### What it is and how it's treated

### What is hepatitis C?

Hepatitis C is a virus that can infect the liver.

Most people who have hepatitis C don't feel sick when they are first infected.Instead, the virus can slowly damage the liver over many years. This can lead to serious complications such as cirrhosis (scarring of the liver) and liver cancer. People who have cirrhosis due to hepatitis C may eventually need a liver transplant.

### How does a person become infected with hepatitis C?

Hepatitis C is usually spread through direct contact with the blood of a person who has the disease. Sharing a needle with an infected person when using intravenous (IV) drugs is one of the most common ways of getting hepatitis C.

Less common ways of being infected with hepatitis C are:

- Having received a blood transfusion or an organ transplant before 1992.
- Being stuck with a dirty (used) needle that has been used on an infected person. This includes needles that are used for tattoos or body piercings.
- Using personal care items that have an infected person's blood on them (for example, a razor or toothbrush).
- Having unprotected sex (without a condom) with an infected person.
- · Being born to an infected woman.

Hepatitis C can't be spread unless a person has direct contact with infected blood. This means a person who has hepatitis C can't pass the virus to others through casual contact such as sneezing, coughing, shaking hands, hugging, kissing, sharing eating utensils or drinking glasses, swimming in a pool, using public toilets or touching doorknobs.

### How is hepatitis C treated?

Good health habits are essential for those who have hepatitis C,especially avoidance of alcohol and other medications and drugs that can harm the liver. Although there is not yet a proven cure for hepatitis C,some people benefit from drug treatment. You should discuss treatment with a doctor if you have hepatitis C.

Standard medicines available include the following:

- pegylated interferon alfa-2a (brand name Pegasys)
- pegylated interferon alfa-2b (brand name: Peg-Intron)

These medicines are given as a weekly shot. You may or may not need to use a ribavirin supplement in pill form (some brand names:

Copegus, Rebetol) along with interferon.

Other medicines available to treat hepatitis C include the following:

- interferon alfa-2a (brand name:Roferon-A)
- interferon alfa-2b (brand name: Intron-A)

- interferon alfacon-1 (brand name: Infergen)
- interferon alfa-2b plus ribavirin (brand name: Rebetron)

These medicines are given as an injection (a shot) every day, every other day or 3 times a week, for several months or longer. The length of treatment depends on how severe the infection is. Carefully following your doctor's advice and sticking with your treatment plan will reduce your risk of further liver damage.

### What are the side effects of tre a t m e n t?

Side effects of interferon therapy may include the following:

- · Weight loss
- Trouble sleeping
- · Chest pain · Nausea/vomiting
- Fever and body aches
- Extreme tiredness
- Irritability
- Depression

Side effects of ribavirin supplements may include the following:

- Decrease in red blood cells (anemia)
- · Skin rashes/itching
- Worsening of heart/circulatory problems
- Extreme tiredness

Side effects are usually worst during the first few weeks of treatment and become less severe over time. If you are having trouble dealing with the side effects of your medicine, talk to your doctor. He or she can suggest ways to relieve some of the side effects. For example, if your medicine makes you feel nauseated, it may help to take it right before you go to sleep. If taking medicine to treat hepatitis C makes you feel worse than the actual disease does, you may be tempted to stop taking your medicine before your treatment is done. However, if you don't prevent chronic inflammation from damaging your liver, you'll be much sicker in the long run. Don't stop taking your medicine until your doctor tells you to.

### How will I know if my treatment works?

The goal of treatment is to reduce the amount of the hepatitis C virus in your blood to levels that can't be detected after 24 weeks of therapy.

The amount of the virus in your blood is called your viral load. At the end of your treatment, your doctor will need to measure your viral load and find out how healthy your liver is.

He or she may repeat many of the same tests that were done when you were first diagnosed with hepatitis C.

If your blood has so few copies of the virus that tests can't measure them, the virus is said to be undetectable. If it stays undetectable for at least 6 months after your treatment is finished, you have what is called a sustained virologic response (SVR). People who have an SVR have a good chance of avoiding serious liver problems in the future.

If treatment doesn't reduce your viral load, or if you don't have an SVR after treatment, your doctor will discuss other treatment options with you. For example, if you have been treated with interferon alone, you will probably be treated with interferon plus ribavirin. Even if treatment doesn't keep you from having active liver disease, lowering your viral load and controlling chronic liver inflammation may help you feel better for a longer time.

### How can I cope with my feelings about having hepatitis C?

Coping with hepatitis C isn't easy. You may feel sad, scared or angry, or you may not believe you have the disease. These feelings are normal, but they shouldn't keep you from living your daily life. If they do—or if they last a long time—you may be suffering from depression. People who are depressed have most or all of the following symptoms nearly every day, all day, for 2 or more weeks:

- Feeling sad or crying often (depressed mood)
- · Losing interest in daily activities that used to be fun
- Changes in appetite and weight
- Sleeping too much or having trouble sleeping
- · Feeling agitated, cranky or sluggish
- · Loss of energy
- · Feeling very guilty or worthless
- Problems concentrating or making decisions
- · Thoughts of death or suicide

Talk to your doctor if you notice any of these symptoms.

Your doctor can help by recommending a support group or a therapist, and/or by prescribing a medicine for you to take.

Taking medicine to treat hepatitis C requires a big commitment. You and your doctor need to talk about what you can expect from treatment and how you can stay as healthy as possible. Your doctor will want you to agree to the following conditions.

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O	Take n	ny medicines exactly as my doctor tells me. My treatment plan is:
inter	feron: _	(how much;how often)
ribav	virin:	(how much;how often)

- O Talk to my doctor before I stop taking my medicine or change my treatment plan in any way.
- O Talk to my doctor before taking any other medicines—including prescription and over-the-counter medicines—or herbal supplements.

It's especially important to avoid taking medicines that can damage your liver. Acetaminophen (one brand name: Tylenol) should be used only at recommended doses. Your doctor can recommend the correct dosage.

People with hepatitis C should not take any type of iron supplement, including multivitamins that contain iron.

### In order to give myself the best chance of staying healthy, I agree to:

O Avoid drinking alcohol and taking recreational drugs.

Drinking and taking drugs can damage your liver. Some people with hepatitis C may be able to drink alcohol in small amounts.

Ask your doctor if it's OK for you to drink some alcohol.

O Maintain a healthy diet and exercise regularly.

Your doctor can give you advice about the best nutrition and exercise plans for you.

- O Talk to my doctor about how I'm coping with the disease, especially if I am feeling depressed. Many people with hepatitis C—and many people who take interferon treatment—struggle with depression. Feeling depressed from time to time is normal. However, if your depressed feelings interfere with having a normal life—or if they linger for a long time—you need to tell your doctor. He or she can help you figure out how to cope. Support groups can be helpful, so ask about any that exist in your area.
- O Get the vaccines that my doctor recommends.

Most people with hepatitis C should be vaccinated against hepatitis A and hepatitis B. Another vaccine that your doctor might recommend is pneumococcal vaccine.

### In order to lower the risk of spreading hepatitis C to others, I agree to:

- O Not donate blood, organs or semen.
- O Alert anyone who might come in contact with my blood—doctors, dentists, other health care workers—that I have hepatitis C.
- O Tell my sexual partner(s) that I have hepatitis C.

People with multiple partners should use a condom every time they have vaginal, oral or anal sex.

- Avoid sharing my toothbrush,razor or other personal hygiene products that might have my blood on them.
- O Cover any cuts or open sores and dispose of items that have my blood on them very carefully.

PATIENT'S SIGNATURE DATE DOCTOR'S SIGNATURE DATE

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### For patients taking ribavirin:

If I'm a woman with hepatitis C of childbearing age, I agree to:

- Take a pregnancy test showing that I am not pregnant before starting my treatment.
- O Take a pregnancy test showing that I am not pregnant every month during treatment and for 6 months after treatment ends.
- O Use 2 forms of effective birth control during treatment and for 6 months after treatment ends. If I'm a man with hepatitis C who has at least one sexual partner who is a woman of childbearing age, I agree to:
- O Have my partner(s) take a pregnancy test showing that she is not pregnant before I start my treatment.

- Have my partner(s) take a pregnancy test showing that she is not pregnant every month during treatment and for 6 months after treatment ends.
- O Use 2 forms of effective birth control during treatment and for 6 months after treatment ends. One of the forms of birth control must be a condom.Ribavirin can cause birth defects and/or death of an unborn child.