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What is hepatitis C?

Hepatitis is an inflammation (swelling or tenderness) of the liver. Hepatitis C virus (HCV) is the most common form of viral hepatitis and usually causes a chronic, long-term infection lasting months or years before diagnosis. About 3.5 million people in the U.S. have chronic HCV.

Symptoms of HCV are often like the flu and not too harsh. Many people don't have any symptoms at all, which means they do not know they are infected and may not know they can spread the infection to other folks. There is no vaccine to prevent HCV, but there are options to treat, and now cure, HCV.

HCV can be acute or chronic.

- **Acute** means that it is a short-term illness (less than six months). Acute HCV can lead to chronic HCV.
- **Chronic** means it is a long-term illness where the virus stays in your body and can last a lifetime. If inflammation of the liver lasts at least six months or longer, it is called chronic HCV. Chronic hepatitis C can lead to scarring of the liver, also known as cirrhosis. Cirrhosis can lead to liver failure if not controlled.

The liver

The liver is one of the most important organs in your body. It weighs about three pounds and sits in the upper right side of the torso, below the ribs. Your liver:

- Makes bile.
- Cleans alcohol and poisons from your system.

- Stores certain vitamins, minerals, sugars and iron.
- Filters and detoxifies chemicals in what you eat, breathe and absorb through the skin.
- Regulates fat stores and controls the making and release of cholesterol.
- Kills poisonous substances.
- Changes the food you eat into energy, clotting factors, immune factors, hormones and proteins.
- Breaks down drugs and medications.

How does hepatitis C spread?

HCV is spread through a carrier, which is someone who has the virus in his or her blood. A carrier may or may not have symptoms of HCV. Since the virus is in the blood, it can spread through exposure to blood or, rarely, bodily fluids of a carrier. This can happen through:

- IV drug use.
- Contaminated needles.
- Being born to a mother with HCV.

Less often, it can be spread through:

- High-risk sexual behavior (especially if you are HIV positive).
    - Women with HCV should avoid sex during menstruation.
- Sharing personal care items that could have a carrier's blood, such as razors, toothbrushes, communal tattoo needles and unsterilized manicure and pedicure tools.

Prior to 1992, there was no screening of HCV at blood banks, and it was more common to spread through blood transfusions. Blood banks now screen blood to ensure the safety of the blood supply. This has greatly reduced the number of HCV cases from transfusions.

HCV is not spread through:

- Sharing eating utensils.
- Food or water.
- Breastfeeding.
- Coughing or sneezing.
- Touching, such as hugging, kissing or holding hands.

Who is at risk for hepatitis C?

- Injection-drug users (past or current).
- People who received donated blood or organs before 1992 (when screening for HCV began).
- People who received clotting factor concentrates before 1987.
- People who are on long-term hemodialysis.
- Health workers who may get a needle stick from HCV-positive blood.
- Children born to HCV-positive mothers.
- People who get a tattoo in an unregulated setting.
- Patients with HIV.
    - Co-infection of HCV in patients who are HIV positive is common.
    - About one-quarter of patients who have HIV also have HCV.
    - About 50 to 90% of HIV-infected injection-drug users also have HCV.
    - HCV virus infection is worse in patients with HIV.

Where you born between 1945-1965?

People born from 1945–1965 are five times more likely to have HCV. If you were born between 1945 and 1965, the CDC advises you get tested, even if you don't have any symptoms.

You should get tested for HCV if:

- You were born between 1945 and 1965.
- You have abnormal liver blood test results.
- You work in a place where you were exposed to blood through a needle stick or other sharp object.
- You have HIV.
- You use — or used to use — injection drugs (even if it was just once).
- You got a blood transfusion or an organ transplant before July 1992.
- You were treated for a blood clotting issue before 1987.
- You are on hemodialysis treatment long-term.

- You have a sexual partner that is HCV infected.
- Your mother has had HCV.
- You have snorted “street” drugs.
- You have a “street” tattoo.
- You have been in prison or incarcerated.
- Your spouse or household contacts have HCV.
- You have signs of liver disease.

What are the symptoms of HCV?

Many cases of HCV are not found because there are no symptoms, or the symptoms are vague and may seem like the flu. Symptoms may start from two weeks to six months after exposure, though the average is six to seven weeks.

Some people with HCV may have:

- Fatigue (feeling weak or tired).
- Nausea.
- Throwing up.
- Diarrhea (loose stool).
- Belly pain.
- Muscle and joint aches.
- Changes in the color of urine and stool.
- Jaundice (when your skin and/or the whites of your eyes turn yellow). Jaundice may also cause itching.

If you are having symptoms and are at risk for HCV, your health care provider will:

- Take your medical history.
- Do a physical exam.
- Order blood tests.
    - Many blood tests are used to look for HCV, so your doctor may choose to do one or many at once.

Treatment for HCV

The purpose of HCV care is to prevent the development of cirrhosis, complications from cirrhosis, need for liver transplantation, liver cancer and early death. There is no vaccine to prevent HCV but treatment options are available.

- About 15–20% of people with HCV will clear the virus from their bodies without treatment and will not get a chronic (lifelong) infection. Experts are not sure why this happens for some patients.
- Most patients will have chronic HCV infection.

A variety of drugs that work in different ways are used together to treat HCV so that the virus can be attacked in different ways to increase your chance of a cure. Your gastroenterologist or liver specialist, called a hepatologist, will help guide you through complex treatment options.

− Injected pegylated interferon and oral medication

- In the past, this was the widely used treatment for HCV.
- Patients stay on these drugs for 24–48 weeks.
- It only cures 20–40% of patients and is associated with significant side effects.

+ Protease inhibitors, NS5A inhibitors, polymerase inhibitors

- These are newer option to care for HCV. They are sometimes called direct-acting antivirals (DAA).
- These treatments do not use interferon.
- Patients stay on these for 12–14 weeks.
- Most cases on these treatments have a greater than 90% chance of cure.
- Patients on these have fewer side effects, are better tolerated and have much better success rates than earlier treatments.
- These drugs are very high priced and not all health plans cover them.

No two patients with HCV infection are exactly the same, so each will need an individualized care plan based on certain things, such as:

- The type of HCV.
    - There are six genotypes of HCV infection. Most HCV patients in the U.S. have genotype 1 (1a or 1b).
    - A lab test can be ordered to find out a patient's genotype.
- Treatment with other drugs that did not work.
- Scar tissue in the liver (called fibrosis) or cirrhosis (full-blown fibrosis). This can sometimes be found with a liver biopsy (taking a small piece of tissue to look at under a microscope), or other noninvasive studies, such as labs or special ultrasound.
- Complications from cirrhosis that can lead to higher risk of liver failure and early death without liver transplantation.

- Prior liver transplantation for HCV infection.
- Potential for drug allergy or drug-drug interaction.
- Other conditions, such as liver disease, renal disease, HIV, diabetes, psychiatric history or pregnancy.

> **Note:**
> Active drug abuse or participation in a methadone treatment program does not limit a patient's chance to be treated for HCV infection.

Living with HCV

Some tips for people with chronic HCV:

- Check in with your health care provider as needed, such as when you start a new medication.
- Get tested for HIV, hepatitis A and B.
- Get vaccinated against hepatitis A and B.
- People who are also HIV positive should use condoms to help prevent transmission.
- Discuss HCV status with your sexual partner.
- Cover all wounds to prevent blood exposure.
- Do not drink alcohol.
- Exercise will depend on the how tired or weak you may feel from HCV. If you have the energy, there are no limits to the amount or type of exercise that can be performed.
- Eating a nutritious, well-balanced diet can be helpful.
- Though it is a low risk, learn about the possible spreading of HCV through:
    - Sex partners.
    - Sharing personal items, like razors or toothbrushes.
    - Donating blood, organs, tissue or semen.
- HCV is not spread through sharing food or water, coughing or sneezing, or through touching, such as hugging, kissing or holding hands.
- Obesity can accelerate HCV, so treatment is suggested to get to a healthy weight.
- Many support groups, both online and in-person, can help.