Patient

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Hepatitis C

Hepatitis C is a blood-borne virus that infects the cells of the liver. Most cases occur in people who share needles or injecting equipment contaminated with traces of blood to inject 'street drugs'. Some people clear the infection naturally. Some people with persistent infection remain free of symptoms, although others have symptoms. Persistent infection can lead to 'scarring' of the liver (cirrhosis) and may lead to liver cancer. Treatment can clear the infection in over half of cases.

What is hepatitis C?

Hepatitis means inflammation of the liver. There are many causes of hepatitis, of which the hepatitis C virus is only one. Please read the separate leaflet called Hepatitis for more information about what the liver is, what it does, and the other causes of hepatitis.

One virus that causes hepatitis is called the hepatitis C virus (HCV). This leaflet is only about hepatitis C. See separate leaflets called Hepatitis A and Hepatitis B, which are caused by different viruses. Hepatitis C is also sometimes called 'hep C'. Hepatitis C was only discovered in the 1980s so it is still a relatively new disease; some aspects of this disease are still not completely understood.

Hepatitis C is a virus which is carried in the bloodstream to the liver. It can then affect and damage your liver. However, this virus can also affect other parts of the body, including the digestive system, the immune system and the brain.

There are six types of the hepatitis C virus. These different types are called genotypes and they are numbered 1 to 6. The most common subtypes of hepatitis C in the UK are genotypes 1 and 3. It is important to know which type you have, as different types respond differently to treatment. It is possible to be infected with more than one type of hepatitis C at the same time.

How common is hepatitis C?

The exact number of people infected is not known. There are around 200,000 people chronically infected with hepatitis C in the UK. Worldwide, over 180 million people are infected. Rates of infection have been relatively stable in recent years, but deaths from hepatitis C have reduced, thought to be because treatment options have become better.

Most cases are in people who inject illegal drugs. It is estimated that up to half of injecting drug users become infected with hepatitis C.

How can you get hepatitis C?

Hepatitis C is a blood-borne disease. The main source of infection is from blood from an infected person.

- Most cases are caused by using contaminated needles or injecting equipment (spoons, syringes, filters, water for injection, etc) to inject drugs ('sharing needles'). Even a tiny amount of an infected person's blood left on a needle is enough to cause spread to others.
- Some people who received blood transfusions or blood prior to 1991 were infected with hepatitis C from some donor blood. Since 1991 all blood and blood products donated in the UK are screened for HCV.
- There is also a risk of contracting hepatitis C from needlestick accidents, or other injuries involving blood spillage from infected people.
- There is a small risk of contracting the virus from sharing toothbrushes, razors and other such items which may be contaminated with infected blood. (The virus can live outside the body, possibly for up to four days.)
- There is even a small risk from inhaling drugs like cocaine, as these can make the inside of your nose bleed. If that happens, tiny spots of blood can fall on to the note you are using and, if that is used by someone else, your blood can travel up their nose and into their bloodstream.
- There is also a small risk from re-used equipment used for tattooing, body piercing, acupuncture, etc.
- There is a small risk that an infected mother can pass on the infection to her baby.
- There is a small risk that an infected person can pass on the virus whilst having sex.

The virus is **not** passed on during normal social contact, such as holding hands, hugging, or sharing cups or crockery.

What are the symptoms and how does hepatitis C progress?

Many people with hepatitis C feel entirely well and have few or no symptoms. Any symptoms that may be present (see below) are often initially thought to be due to another illness. This may mean that hepatitis C may be diagnosed when you have had the virus for some time. Many people have hepatitis C without knowing it.

It is helpful to think of two phases of infection with HCV. An acute phase when you first become infected and a chronic (persistent) phase in people where the virus remains long-term.

Acute phase of hepatitis C

Acute means 'new' or 'for a short time'. This phase lasts for the first six months. When first infected with the virus, most people have no symptoms, or only mild ones. If symptoms do occur, they develop about 7-8 weeks after being exposed to the virus and may include feeling sick (nausea), being sick (vomiting) and feeling generally unwell. Some people go 'yellow' (become jaundiced). This is due to a build-up of the chemical bilirubin which is made in the liver and spills into the blood in some liver conditions. It is unusual to have severe symptoms.

Following the initial infection:

- In about one quarter to one half of cases the virus is cleared from the body by the immune system within 2-6 months. If this happens then you will have no long-term effects from the virus. Younger people and women are more likely to clear the virus in this way.
- In 5 to 8 out of 10 cases, the virus remains active in the liver and bloodstream long-term. This is called chronic infection with hepatitis C.

Chronic phase of hepatitis C

When infection with hepatitis C lasts for longer than six months, it is known as chronic hepatitis C infection. The course of the chronic infection varies considerably between people and it is very unpredictable. Of those people who develop chronic infection:

- Some people have mild or no symptoms. However, even if you have no symptoms, you can still pass on HCV to others who may develop problems.
- Some people develop some symptoms due to persistent inflammation of the liver. For example, feeling sick, lack of appetite, intolerance of alcohol, pains over the liver, jaundice and depression. The most common symptoms of chronic hepatitis C are extreme tiredness, poor concentration and memory problems, and muscle and joint aches. There is actually no relationship between the severity of symptoms and the degree of liver damage. This means that some people can have liver inflammation without having any symptoms.
- About one third of people with chronic hepatitis C infection develop cirrhosis over a period of about 20-30 years. Cirrhosis is like a 'scarring' of the liver, which can cause serious problems and 'liver failure' when it is severe. See the separate leaflet called Cirrhosis. Some people with chronic hepatitis C have no symptoms for many years until they develop cirrhosis. Only when the liver starts to fail with cirrhosis do symptoms appear.
- A small number of people who develop cirrhosis go on to develop liver cancer.

How is hepatitis C diagnosed?

A simple blood test can detect antibodies to HCV in your blood. (Antibodies are proteins made by the immune system to attack germs such as viruses, bacteria, etc.) A positive test means that you have at some stage been infected with hepatitis C.

However, this test remains positive even in people who have cleared the virus from their body. (The antibodies remain even if the virus has gone.) Also, it can take up to six months for the antibody test to become positive after a person has first been infected, as the body may take a while to make these antibodies. So, a negative test does not necessarily rule out a recently acquired infection. A repeat test in a few months may be advised in some people who have recently been at risk of catching hepatitis C.

If the antibody test is positive then a further blood test is needed to see if the virus is still present. This is called a PCR test. This is a more specialised test which detects particles of the virus. Tests may also be done to find exactly which type of HCV you are infected with.

Assessing the severity of the infection

If you are found to have virus present then other tests may be advised to check on the extent of inflammation or damage to the liver. For example:

- Blood tests called liver function tests. These measure the activity of chemicals (enzymes) and other substances made in the liver. This gives a general guide as to whether the liver is inflamed and how well it is working. See the separate leaflet called Liver Function Tests. Other blood tests will also be done for various reasons. For example, tests to check for other illnesses which can be passed on in the same way, such as HIV or hepatitis B. Also tests of other functions of the liver, such as the ability of blood to clot properly, and levels of iron stores.
- An ultrasound scan of the liver.
- Other tests may be done if cirrhosis or other complications develop.
- There are other specialised blood tests being developed which assess the development and severity of cirrhosis.
- A small sample of the liver taken to look at under the microscope (a liver biopsy) used to be recommended before considering treatment. However, this is no longer routine prior to treatment. See the separate leaflet called Liver Biopsy.

How can I prevent passing on the virus to others?

If you have a current hepatitis C infection you should:

- Not share any injecting equipment such as needles, syringes, etc.
- Not donate blood or carry a donor card.
- Not share razors, toothbrushes or anything else that may possibly be contaminated with blood.
- Use condoms when having sex. The risk of passing on HCV during sex is small but risk is reduced even further by using condoms.

- Advise anybody with whom you have had sex or shared needles to have tests as well, to check they do not have HCV.

There is currently no vaccine available to protect against hepatitis C.

What is the treatment for hepatitis C?

The treatment for hepatitis C has advanced in recent years which has greatly improved the outlook (prognosis) for people with hepatitis C. The main aim of treatment is to clear HCV from the body and so prevent severe liver damage leading to cirrhosis.

If you have acute hepatitis C, you may not need treatment, but will be monitored carefully to see if your body clears the virus on its own, and to keep an eye out for liver damage. Treatment with medicines is advised for most people with chronic hepatitis C. The type of treatment will depend on various factors, including the type of HCV, the severity of the infection and your own health. The treatments recommended are changing all the time as the treatment of hepatitis C is a developing area of medicine. New treatments continue to be developed. The specialist who knows your case can give more accurate information about the outlook for your particular situation. They can also advise on the side-effects you can expect with each individual treatment. Treatment length varies, depending on your situation, and can last from two months to nearly a year.

The usual treatment up until recently was often a combination of two different medicines called pegylated interferon and ribavirin. Pegylated interferon is also known as peginterferon. It is a form of a medicine called interferon which is similar to a substance produced in your body, also called interferon. It helps your body get rid of HCV. This may stop the virus damaging your liver. This is usually given as one injection each week. Ribavirin is a medicine that fights viruses. It is given in combination with pegylated interferon and is taken each day as a tablet or as a liquid.

However, newer treatment combinations have been found to be more effective in many cases. Sometimes these are used along with ribavirin. There are quite a few different medicines used and recommendations change frequently in this rapidly developing field.

Liver transplant

For some people with advanced 'scarring' of the liver (cirrhosis), liver transplantation may be an option. Although this is a major operation, the outlook (prognosis) following a liver transplant can be very good. However, the new liver may also eventually become damaged by the persisting hepatitis C infection.

Diet and alcohol

Most people with chronic hepatitis C will be advised to eat a normal healthy balanced diet. Ideally, anybody with inflammation of the liver should not drink alcohol. If you already have liver inflammation, alcohol increases the risk and speed of developing 'scarring' of the liver (cirrhosis).

Vaccinations

You should be vaccinated against hepatitis A or hepatitis B if you have never been infected with these viruses in the past. It is also recommended that you are vaccinated against influenza and infection with pneumococcus. Your GP or practice nurse will be able to give you more information about this.

Further reading & references

- Management of hepatitis C; Scottish Intercollegiate Guidelines Network - SIGN (July 2013)
- HCV Guidance: Recommendations for Testing, Managing, and Treating Hepatitis C; American Association for the Study of Liver Disease/Infectious Disease Society of America (2017)
- Hepatitis C: guidance, data and analysis; Public Health England, April 2013
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- Hepatitis C; NICE CKS, February 2016 (UK access only)
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- Daclatasvir for treating chronic hepatitis C; NICE Technology Appraisal Guidance, 25 November 2015
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- Ombitasvir-paritaprevir-ritonavir with or without dasabuvir for treating chronic hepatitis C; NICE Technology Appraisal Guidance, 25 November 2015
- Sofosbuvir-velpatasvir for treating chronic hepatitis C; NICE Technology Appraisal Guidance, 25 January 2017
- Glecaprevir-pibrentasvir for treating chronic hepatitis C; NICE Technology Appraisal Guidance, 24 January 2018

Author: Dr Mary Harding	Peer Reviewer: Dr Adrian Bonsall	
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