

12.2.10.1 HEPATITIS C

What is Hepatitis?

The word "hepatitis" means inflammation of the liver. There are many causes of hepatitis, but this brochure concentrates on some of the most common types of hepatitis - those caused by viruses. A virus is a tiny, microscopic germ which can sometimes travel from person to person (i.e. may be infectious).

What is Viral Hepatitis?

Viral hepatitis is inflammation in the liver caused by one of several possible viruses. Once a virus has infected the liver, several things can happen:

1. The virus may cause no symptoms or damage at all, but can leave the body spontaneously without the patient ever being aware that they were infected (this is called "sub-clinical" infection.)
2. The virus may cause no liver damage, but can continue to live quietly in the liver and blood (this is called being a "healthy carrier")
3. The virus can cause an acute (short lived illness with jaundice (turning yellow), nausea and a general feeling of being unwell.
This is "acute" hepatitis. Usually acute hepatitis will get better completely and the virus will leave the body. Sometimes the liver can recover completely but the virus stays in the liver and blood ("healthy carrier").

Occasionally, however, hepatitis can go on to a longer term illness, called chronic hepatitis (see below). "Chronic" refers to the duration of hepatitis, not the severity.

4. Sometimes a virus may cause chronic hepatitis damage to the liver which usually does not get better by itself. The symptoms of chronic hepatitis are often not very obvious- sometimes tiredness, nausea or discomfort in the abdomen are the only symptoms. Chronic hepatitis does not always follow on from acute hepatitis. Sometimes it is diagnosed out of the blue in someone who has never been symptomatic.
5. If chronic hepatitis goes on for several years, the liver may repair itself without much damage, or it may respond by making scar tissue. This scar tissue prevents the liver from working properly, and is called cirrhosis. Some people with cirrhosis have no symptoms, but others may have tiredness, jaundice, swelling of the body from fluid, bruising or bleeding.

6. Very occasionally chronic damage to the liver from some hepatitis viruses (not all) can cause Liver Cancer

What Hepatitis Viruses are there and how do they differ?

There are five major hepatitis viruses (hepatitis A, B, C, D, E). All five viruses are different and not all of them cause each of the conditions listed above (1-6). Some cases of viral hepatitis cannot be attributed to hepatitis A-E. This is called non-A-E hepatitis and scientists continue to study the causes of non-A-E hepatitis.

Hepatitis A was discovered over 20 years ago. It is spread by contaminated water and shellfish, by inadequate hand washing and close domestic contact. It can cause subclinical or acute hepatitis. Almost all patients with hepatitis A recover fully, and in all cases the virus leaves the body. It never causes a "healthy carrier state" or chronic hepatitis, cirrhosis or liver cancer.

Hepatitis B Is spread by blood (blood transfusions before 20 years ago, intravenous drug use and needle sharing, tattoos), sexually (homosexual or heterosexual intercourse), from mother-to-baby at the time of delivery and also occasionally by close family contact. Hepatitis B can cause sub-clinical or acute hepatitis. Most people recover completely, but in about 5-10% of patients the virus remains in their liver. They may be healthier carriers, or may develop chronic hepatitis, cirrhosis and, rarely, liver cancer. There is a very effective vaccine available which should be given to any people at risk for hepatitis B, or in close domestic contact with a carrier of hepatitis B. It must be given to all newborn children whose mothers are carriers of hepatitis B.

Hepatitis C is discussed fully below.

Hepatitis D is rare in Australia, and only occurs in people who are already infected with hepatitis B.

Hepatitis E is transmitted in a similar way to hepatitis A and does not usually occur in Australia. It can, however be contracted by travellers to some underdeveloped countries.

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Do any other viruses affect the liver?

Yes, occasionally the glandular fever virus, or other less common viruses can affect the liver. These never cause chronic problems and are always totally cleared from the body.

Hepatitis C is thought to be more common than any of the other hepatitis viruses. It probably affects about 0.4% of the Australian community (1 in 250).

How do people get infected with hepatitis C?

Hepatitis C is spread by blood. This means that it was possible to acquire by blood transfusion in the past. However since 1990 all blood donated by blood donors has been tested for Hepatitis C.

Hepatitis C can also be contracted from intravenous drug use or tattooing.

It does not seem to be spread very readily by sexual contact or homosexual intercourse. The risk may be higher if one partner has acute hepatitis C. From what we know at present, hepatitis C does not seem to be spread readily from mother-to-baby (unless the mother has HIV (AIDS) as well), but up to 10% of babies born can become infected at birth. It is also probably not spread easily by normal family and domestic contact.

It is important, however to note that about half of the time we cannot identify the source of infection with hepatitis C. It is still not known how some people in the community acquire hepatitis C.

What happens if I contract Hepatitis C?

Firstly, the infection may not cause any symptoms, or may cause acute hepatitis. You may then go on to clear the virus from your body or you may become a healthy carrier, or you go on to get chronic hepatitis. The chance of developing chronic infection is probably 20-50%

What happens with chronic hepatitis C infection?

Most people with chronic hepatitis C have only mild damage to their liver. In fact, many have no symptoms at all. Some may feel tired or have mild abdominal discomfort or intermittent nausea. Sometimes, however, over many years, the virus causes slow ongoing damage to the liver and can eventually lead to cirrhosis. It appears that this might happen in up to 25% of people who have chronic hepatitis C, but it does take up to 20 years. In some cases, hepatitis C may cause liver cancer. This appears to be more common if there is something else

also damaging the liver, such as alcohol, or hepatitis B infection.

Is there any treatment for chronic hepatitis C infection?

Interferon is a treatment that may help the body fight hepatitis C infection. Interferon alone or in combination with a drug called ribavirin can be used. Combination therapy is currently the treatment of choice and can eliminate the virus in up to 40% of cases. There are some side effects, and so patients on Interferon are carefully observed. It is hoped that there may be other forms of treatment developed to fight hepatitis C in future years.

Is there a vaccine for hepatitis C?

Unfortunately not yet. The hepatitis C virus is quite variable; its exact structure varies in different places around the world. This means that developing a vaccine will be difficult, but there may be a vaccine in years to come.

How can I stop the spread of Hepatitis C?

If you are infected with Hepatitis C (either as a healthy carrier, or with chronic hepatitis) your blood is infectious. Thus you must be extremely careful not to let other people come into contact with your blood. Some suggestions are shown below. Hepatitis C does not seem to be spread easily from mother-to-baby, so if you are pregnant you can feel reassured that your baby is unlikely to pick up hepatitis C from you. However it may be wise to have the baby checked for hepatitis C at about 1 year of age. Before you decide to become pregnant it is wise to discuss this with your general practitioner and plan a course of action that will minimise the risk of your baby contracting the disease

HOW TO MINIMISE THE SPREAD OF HEPATITIS C

If you have a positive hepatitis C test:

1. Do not donate blood
2. Do not share needles
3. Advise health care workers, including your dentist, that you are hepatitis C positive
4. Do not share intimate equipment such as toothbrushes, razors, nail files or nail scissors (which could puncture the skin and thus spread blood)
5. Wipe up blood spills in the home with household bleach
6. Cover any cuts or wounds with an adequate dressing
7. Dispose of blood-stained tissues, sanitary napkins and other dressings safely.
8. Use "safe sex" practices. (It may be advisable to use condoms for heterosexual intercourse in acute hepatitis C infection. It is not yet known what the risk of heterosexual transmission of hepatitis C in chronic infection, but it seems to be low. Condoms should always be worn for anal intercourse.)

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Who should I see if I am Hepatitis C positive?

It is suggested that you first discuss the matters with your local medical practitioner. He or she will assess you for possible liver damage and do some blood tests. If the tests show liver damage, your doctor will refer you to a specialist gastroenterologist.

Blood tests for hepatitis C are fairly accurate but are not yet 100% foolproof - this means there may be an occasional person with hepatitis C who is "missed" by the test or alternatively, the test may diagnose hepatitis C in someone who does not really have the virus.

If you have any further questions on hepatitis you should see your local doctor

Concept Fertility Centre is grateful to the Australian Gastroenterology Institute for providing the bulk of information in this brochure.