

Information about

# Hepatitis C

## What is Hepatitis C?

Hepatitis C is an infectious disease affecting the liver, caused by the Hepatitis C virus (HCV). Hepatitis C is now thought to be the most common cause of chronic hepatitis (long-lasting inflammation in the liver) and probably affects about 1% of the Australian community.

The infection is often asymptomatic (no symptoms), but once established, chronic infection can progress to scarring of the liver (fibrosis), and advanced scarring (cirrhosis) which may be apparent after many years.

The Hepatitis C virus (HCV) was discovered in 1988. Scientists had been searching since 1975 for an elusive agent called non-A, non-B hepatitis; it was given that name because many cases of Hepatitis C caused by blood transfusion turned out not to be due to either hepatitis A or B.

## Who should be tested for Hepatitis C?

- People who have ever injected drugs
- People who have received a blood or blood product transfusion prior to 1991
- People with abnormal liver tests or evidence of liver disease
- People with tattoos
- People born in countries with a high prevalence of Hepatitis C

## What happens if my Hepatitis C test is positive?

Prior to being tested you should have received some information about Hepatitis C by your doctor.

If your test is positive, talk to your family doctor. Your doctor will decide if the test result is a true positive. A Hepatitis C (PCR) test, which tests for the virus itself rather than just an antibody, may be performed to confirm that you actually have the infection.

Your doctor will also give you more information about Hepatitis C, assess for possible liver damage, and do some additional blood tests. Your doctor may suggest antiviral treatment and arrange referral to a liver specialist for further assessment.

**The risk of acquiring Hepatitis C in someone who has injected drugs is probably more than one in three; after one year of regular use the chance is more than 70%.**



## How did I get infected with the Hepatitis C Virus (HCV)?

People acquire Hepatitis C by contact with infected blood. The most common way that people contract Hepatitis C is through use of injecting drugs. Some people however, contracted Hepatitis C through transfusion of blood or other blood products before effective screening of blood products became available in the early 1990s.

Clearly the biggest risk for infection with Hepatitis C is injecting drug use. Individuals are most likely to acquire Hepatitis C from sharing needles, but other injection equipment, blood-contaminated swabs or fingers may carry the virus from one user to the next. The risk of acquiring Hepatitis C in someone who has injected drugs is probably more than one in three; after one year of regular use the chance is more than 70%. It is possible that Hepatitis C infection can be contracted by sharing razor blades, toothbrushes or other personal sharp items with someone who has Hepatitis C.

Unlike hepatitis B and the human immunodeficiency virus (HIV or AIDS virus), HCV is not spread readily by sexual contact. It is thought that partners of HCV-infected individuals do not have an increased risk for HCV unless they have had direct blood-to-blood contact (for example, by sharing razor blades) or have an independent reason why they might have HCV infection. Ordinary close contact, (kissing, sharing crockery or cutlery etc.) does not lead to transmission of this virus.

Hepatitis C is not commonly spread from an infected mother to her baby at the time of birth.

For some people, the only risk factor for having Hepatitis C infection is that they were born in a country with a high prevalence of Hepatitis C. It is thought that they contracted infection through exposure to non-sterile medical practices including mass immunisation or surgery, or traditional and folk-medicine practices. It is important to try to identify the likely source of Hepatitis C infection as this allows your doctor to estimate how long you may have been infected, and therefore how severe your liver damage might be.

**The most common way to acquire HCV in Australia is by injecting drug use. Even a single exposure to someone else's blood could be enough to transmit the infection.**

## Can I infect others with Hepatitis C?

If you are infected with Hepatitis C your blood is infectious.

You must be careful not to let other people come into contact with your blood. Some advice is given (see last panel of text).

Hepatitis C is not spread by sharing eating utensils or by physical contact such as hugging or kissing. People with Hepatitis C should maintain a normal lifestyle.

## Can I still have sexual contact?

It is unusual for Hepatitis C to be spread sexually, although it may occur rarely. The exact factors which cause sexual spread are unknown, but it may be more common if people have acute Hepatitis C, or both Hepatitis C and HIV infections. However, the advice in Table 1 should be followed.

Couples in long-standing monogamous relationships do not need to change their sexual practices. Others should use safe sex practices to prevent transmission of sexually transmitted diseases.

## I am having a baby. Is there anything I can do to reduce the risk to my baby?

There is only a small (approximately 2%) risk of transmitting Hepatitis C to a baby. This risk is higher (approximately 15%) if the mother also has HIV infection. Hepatitis C can only be transmitted if the virus is present in the bloodstream at the time of delivery. Having just the Hepatitis C antibody, without the virus itself, is not a risk for transmission.



There is no evidence that any particular method of delivery (Caesarean section versus normal vaginal delivery) will lower the risk of transmission of HCV. However, it is suggested that, if possible, invasive procedures such as foetal scalp monitoring be avoided.

There is no evidence that breast-feeding increases the risk of transmitting the infection to a baby. It is currently recommended that mothers with Hepatitis C breastfeed their babies if they wish to. However, breastfeeding should be ceased if there are cracked nipples or any infection in the breast, until the problem has resolved. Hepatitis C antibodies will cross the placenta and be detectable in the baby for many months. It is not recommended that babies be tested for Hepatitis C antibodies until at least 15 months of age. Babies can be tested earlier using an HCV RNA test (PCR) at 6 months of age.

## What are the symptoms of Hepatitis C?

Most infections cause no symptoms at first. Some people will experience acute hepatitis (nausea, unwell, sometimes jaundice, or turning yellow), these people may eliminate the virus from the body. The chance of this occurring is thought to be between 15% and 45%. The remainder of infections become chronic (i.e. long-term). The infected person may either remain healthy or have long lasting liver inflammation (chronic hepatitis).

## What happens with chronic Hepatitis C infection?

It is not uncommon for people with Hepatitis C to feel tired or vaguely unwell, or have intermittent nausea or abdominal discomfort.

Symptoms are not always a reliable guide to the amount of liver damage. Thus an individual with liver inflammation, but little liver scarring, can sometimes feel quite unwell, whereas another with cirrhosis (severe scarring of the liver) can feel quite well.

In a minority of people the virus causes slow ongoing damage to the liver, with progressive scarring leading to cirrhosis over 20 years or more. Estimates of the proportion of people likely to develop cirrhosis from Hepatitis C vary from 7-20%, and it has become clear that there are often 'co-factors' that make it more likely that someone will develop cirrhosis. These 'co-factors' include being infected at an older age, drinking excessive amounts of alcohol, being also infected with hepatitis B, and being overweight or diabetic. People with cirrhosis can remain perfectly well, without symptoms, for many years. However, in some people, cirrhosis may lead to progressive deterioration of liver function and liver failure. Cirrhosis can also lead to the development of liver cancer. It is important to realise that Hepatitis C is a very slowly progressive disease, so that any decisions that you may be considering about treatment are not urgent. Take your time and talk to your doctor.

## Helpful advice for people with Hepatitis C infection

- People with HCV infection should continue to lead a normal, active lifestyle.
- People with HCV should eat a healthy and well balanced diet.
- People who are overweight should aim to lose weight gradually through a balanced diet and exercise. Even the loss of a few kilograms can lead to improvement in liver tests and liver scarring.
- Don't drink too much. Even moderate alcohol consumption can affect the progression of Hepatitis C. Alcohol intake should be limited to less than one standard drink per day.
- Stop smoking.
- Avoid illicit drug use. You can be infected with multiple strains of HCV, and can be reinfected, even if you have cleared the infection previously
- Certain vitamin supplements or herbal remedies can be harmful to the liver – consult your doctor before taking any.
- People with HCV infection should consider vaccination against hepatitis A virus and hepatitis B virus, particularly if they are travelling overseas. The course of injections may take six months. Thus these people should consult their local doctor well before their departure date (see Digestive Health Foundation brochures on hepatitis A and hepatitis B at [www.gesa.org.au](http://www.gesa.org.au)).

- Treatment is available for Hepatitis C and can lead to long-term elimination of the Hepatitis C virus. The best available therapy is a combination of interferon injections and ribavirin capsules. BUT not everyone with Hepatitis C needs treatment, particularly if the liver disease is very mild.
- People with cirrhosis due to HCV should have their liver function regularly monitored, and undergo regular screening for development of liver cancer (this is rare).
- People with liver failure due to HCV may require liver transplantation (this is rare).

## Is there any specific treatment for chronic Hepatitis C infection?

Yes, there is a treatment available for Hepatitis C which can lead to eradication of the infection in a significant proportion of people. The most effective therapy is 'Combination Therapy' with weekly interferon injections plus twice daily ribavirin capsules. Combination therapy directly suppresses the virus and helps the body's immune system fight against the virus.

Not everyone with Hepatitis C needs antiviral treatment however just about everyone has access to treatment if they want it. Whether or not you should have treatment is best decided in consultation with your doctor.

In some people the treatment is unsuccessful, however new treatments are under development and may be available in the future.

## How likely am I to respond to antiviral therapy for Hepatitis C?

The most important factor that determines someone's chance of eradicating the infection is the strain, or genotype, of Hepatitis C they are infected with. A simple blood test can determine what genotype of Hepatitis C you are infected with.

If you are infected with Genotype 2 or 3, you have at least a 80% chance of clearing the infection. On the other hand, if you are infected with Genotype 1, you have more than a 50% chance of a long-term response. Other factors, such as the amount of scar tissue present in the liver, and the amount of virus circulating in the blood, may also affect your chance of responding to treatment. Your doctor can select the most appropriate type and duration of therapy to maximise your chance of long-term cure.

## How is antiviral therapy given?

Interferon is given by subcutaneous (under the skin) injection, like insulin. Most people learn to give the injection themselves. These injections are given once a week.

Ribavirin is taken as capsules twice a day. Treatment is usually continued for 6 months or 12 months, depending on the genotype that you are infected with, and whether or not you are showing a response.

## What are the side-effects?

Antiviral therapy has many side-effects. Interferon frequently causes flu-like symptoms, such as fever, headaches or aches and pains. Some people notice a loss of appetite, tiredness, irritability and mood changes. Some people develop depression, especially those with a past history of depression. If you have had mental illness you may still be able to receive treatment, but only if your condition is stable and you are under the supervision of a psychiatrist. Interferon can lead to a drop in the numbers of white blood cells (cells that fight infection) and platelets (that help the blood to clot) in the blood.

Ribavirin often leads to a drop in numbers of red blood cells (the cells that carry oxygen around the body). Therefore, people with a history of some blood disorders, heart disease, or kidney disease may be advised not to have treatment. Ribavirin is also damaging to the developing foetus – both women and men must use effective contraception during treatment and for at least 6 months after treatment is stopped. It is important that people considering treatment for Hepatitis C discuss all the possible side effects with their treating doctor, as well as other health care workers, such as specialist Hepatitis C nurses. It is also important to consider the impact that treatment will have on your lifestyle, work and study and plan treatment to cause as little disruption as possible.

## Is the treatment easily available?

The drugs used in combination therapy are very expensive. In Australia, the Commonwealth Government subsidises up to twelve months of combination treatment for people with chronic Hepatitis C infection. The dose of interferon and ribavirin and duration of treatment will be decided by your doctor. Some people should not have antiviral treatment because they are likely to develop complications. These concerns will be discussed by your doctor.

## Are there any other treatments?

New treatments are being assessed in clinical trials in Australia and overseas. These include studies of new antiviral drugs and treatments using various herbal preparations. We do not yet know if these will help.

## Is there a vaccine for Hepatitis C?

No. Development of a vaccine against Hepatitis C will be difficult – there are many strains of the virus, and the virus can change over time. This means that we probably won't have a vaccine for many years to come. However, it is recommended that persons infected with Hepatitis C should be immunised against hepatitis A and B.

## Digestive Health Foundation

This information leaflet has been designed by the Digestive Health Foundation as an aid to people who have been diagnosed with Hepatitis C or for those who wish to know more about this topic. This is not meant to replace personal advice from your medical practitioner.

The Digestive Health Foundation (DHF) is an educational body committed to promoting better health for all Australians by promoting education and community health programs related to the digestive system.

The DHF is the educational arm of the Gastroenterological Society of Australia (GESA). GESA is the professional body representing the specialty of gastrointestinal and liver disease. Members of the Society are drawn from physicians, surgeons, scientists and other medical specialties with an interest in gastrointestinal disorders. GI disorders are the most common health related problems affecting the community.

Research and education into gastrointestinal disease are essential to contain the effects of these disorders on all Australians.

For further information on a wide variety of gastrointestinal conditions is available on our website.

**dhf**

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