

What is HEPATITIS C?

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 caused by blood transfusion turned out not to be due to either hepatitis A or B. 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.

How do people get infected with 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%. People who share houses with injecting drug users can acquire hepatitis C from shared razor blades, toothbrushes or other personal sharp items.

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.



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Hepatitis C is not commonly spread from an infected mother to her baby at the time of birth. The risk of transmission of the infection from a mother with hepatitis C antibodies to baby is 2%. The risk increases to 4-7% if the virus is present in the blood stream at the time of delivery. Risk is increased further if the mother has a high level of virus and is also infected with the HIV virus.

The main reason for knowing the source of hepatitis C infection is to allow your doctor to estimate how long you may have been infected, and therefore the rate at which any liver disease is progressing.

What happens if you contract hepatitis C?

Most infections cause no symptoms at first. Some people will experience acute hepatitis (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 (ie. long-term).

The infected person may either remain healthy or have longlasting liver inflammation (chronic hepatitis).

What happens with chronic hepatitis C infection?

Symptoms are not always a reliable guide to the amount of liver

damage. Thus an individual with a lot of liver inflammation, but little liver scarring, can sometimes feel quite ill, whereas another with cirrhosis (scarring of the liver) can feel quite well.

Some people feel tired or vaguely unwell, or have nausea, abdominal discomfort and other gut symptoms. In a minority of people the virus causes slow ongoing damage to the liver with progressive scarring, or cirrhosis. It is estimated that around 10 to 20% of infected persons will develop cirrhosis, and this is a very gradual process taking 20 years or more. It is clear that there are often 'co-factors' that make it more likely that one person will develop cirrhosis while another will not. These 'co-factors' include being infected at an older age, drinking excessive amounts of alcohol; being infected with Hepatitis B; and being overweight.

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.

What can be done to help people with HCV infection?

1. People with HCV infection should continue to lead a normal, active lifestyle.
2. People with HCV should eat a healthy and well balanced diet.
3. People who are significantly overweight should aim to lose weight gradually through a balanced diet and exercise
4. 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.
5. Stop smoking.
6. Don't take drugs.
7. Certain vitamin supplements or herbal remedies can be harmful to the liver – consult your doctor before taking any.

8. 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).
9. 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. See table 1 for details.
10. People with liver failure due to HCV may require liver transplantation.

Is there any specific treatment for chronic hepatitis C infection?

Yes, there is a treatment available, which is of benefit to some people with chronic hepatitis C. The most effective therapy is 'Combination Therapy' with interferon injections plus ribavirin capsules. Combination therapy directly suppresses the virus and helps the body's immune defences to fight against the virus. Combination therapy is more effective than interferon alone. **Not everyone with hepatitis C needs antiviral treatment**, for instance if the disease is mild, and there may be reasons why it is in your best interest not to have antiviral treatment. At present there is not an effective cure for everybody with hepatitis C. However, as treatment improves, more and more people can be expected to benefit.

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 that they are infected with. Thus, if you are infected with Genotype 2 or 3, you have at least a 70% chance of clearing the infection. On the other hand, if you are infected with Genotype 1, you have a 30-

40% 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.

A simple blood test can determine what genotype of hepatitis C you are infected with.

How is antiviral therapy given?

Interferon is given by subcutaneous (under the skin) injection (like insulin). Most people learn to give the injection themselves. Depending on the type of interferon that your doctor has prescribed, these injections might be given three times a week or 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.

Are there side-effects?

Unfortunately 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.

In people with a history of depression or other mental illness, interferon can be dangerous as it can make these problems much worse. If you have these conditions, 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, heartdisease, 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.

Availability of Hepatitis C antiviral therapy

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 who meet certain criteria. These criteria include elevated liver blood tests and particular changes in a liver biopsy. The choice of interferon type and dosage to be used in your treatment will be decided by your doctor.

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.

How can I stop the spread of 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 in Table 1. 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 hepatitis C be spread by 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 safer 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 risk of transmitting hepatitis C to a baby. There is no evidence that any particular method of delivery (caesarian 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.



HOW TO AVOID THE SPREAD OF HEPATITIS C

DO advise your doctor or dentist about your hepatitis prior to any procedure

DO cover cuts and abrasions with adhesive dressings

DO clean any spills of blood with household bleach, and wear gloves

DO dispose safely of blood stained materials eg. sanitary pads

DO use safe sex practises

DO NOT donate blood, organs or other tissues

DO NOT share needles or similar drug injecting devices or equipment

DO NOT share tooth-brushes or razor blades and other personal items such as nail scissors

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.

WHO SHOULD I SEE IF I HAVE A POSITIVE TEST FOR HEPATITIS C?

You should have had some information about hepatitis C given to you even before you were tested. If your test is positive, talk to your family doctor. Your doctor will decide if the test is a truly positive (occasionally a positive result is actually false); give you more information about hepatitis C; assess you for possible liver damage; and do some blood tests. If there is evidence of active liver disease, your doctor may suggest antiviral treatment and arrange referral to a liver specialist for further assessment.

WHERE CAN I GET FURTHER INFORMATION ABOUT HEPATITIS C?

Australian Hepatitis Council	http://www.hepatitisaustralia.com
Hepatitis C Council of NSW	http://www.hepatitisc.org.au
Hepatitis C Council of Victoria	http://www.hepcvic.org.au
ACT Hepatitis C Council	http://www.acthepc.org
Hepatitis C Council of South Australia	http://www.hepcouncilsa.asn.au
Hepatitis Council of Western Australia	http://www.hepatitiswa.com.au

Digestive Health Foundation

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.

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

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

Digestive Health Foundation

c/-GESA

145 Macquarie Street

SYDNEY NSW 2000

www.gesa.org.au

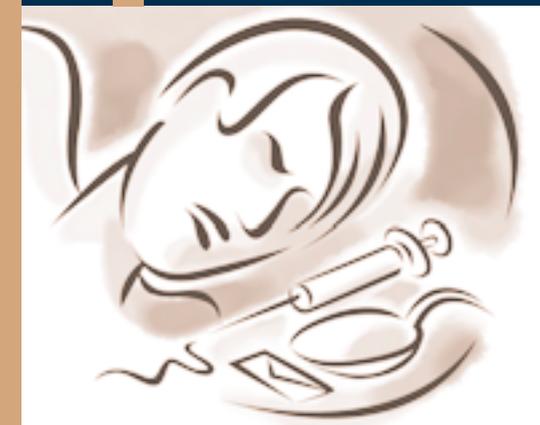
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facts about...

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