



## ***HIV and HCV (Hepatitis C Virus) Co-infection***

Any inflammation of the liver is called hepatitis. But the term is most commonly used to describe a group of viral infections that cause liver inflammation or liver damage. There are a number of hepatitis viruses, which are transmitted in various ways and have different effects on the body. This Fact Sheet is for people who have been diagnosed with both the hepatitis C virus (hep C virus) and HIV. Infection with more than one organism is often referred to as co-infection.

Having both HIV and the hep C virus is not uncommon. It's estimated that about 10 percent of HIV positive Australians also have the hep C virus.

You may experience a great deal of anxiety about co-infection, whether you know your hepatitis C status or not. You may be uncertain about questions like:

- ◇ Will hepatitis C limit my HIV treatment choices?
- ◇ Should I be more concerned about treating my HIV or the hepatitis C?
- ◇ Will hepatitis C cause me to become ill from HIV more rapidly?
- ◇ Does HIV mean I may be more likely to get serious liver damage from hepatitis C?
- ◇ How is hepatitis C transmitted?
- ◇ Does the presence of one virus increase the likelihood of transmitting the other in blood or body fluids?
- ◇ What about sex?

This Fact Sheet is designed to help answer these questions.

### ***A bit about hepatitis C***

Infection with the hep C virus is potentially serious, as it can cause problems with your liver. However, not everybody infected with the hep C virus will get sick or have any serious liver problems. The natural history of hep C (what happens to people who've been exposed to the virus) can take a number of possible courses. It's important to remember that just as with HIV, hep C treatment is changing and improving. This means you can change how the hep C virus affects your body, and in some cases, minimise your chances of ever getting sick from it.

Here are some of the things that can happen following infection with the hep C virus.

- ◇ Your body may deal with hep C of its own accord, and you may never get sick.

About 25 percent of all people who contract hep C will clear the infection. For a range of reasons, hep C infection is eradicated from the body in these people, usually within 12 months of having been infected. In other words, unlike HIV, it appears the hep C virus can be eliminated from the body by the immune system in some people. Usually, if you have normal liver function tests and two hep C PCR tests in a row where the hep C virus doesn't show up (6 months apart), this means you are not chronically infected and that you have cleared the virus from your body.

- ◇ The hep C virus may remain present in your body.

About three quarters of people who contract the hep C virus will be chronically infected. This means that they have consistently detectable hep C virus (measured by a PCR test) in their blood for a period of longer than twelve months. People in this group may be at risk of developing liver problems over time.

### ***Chronic infection with the hep C virus***

The course of hep C in people with chronic infection can vary, depending on a range of factors which include treatment, and other external factors which might affect liver health. The hep C virus differs from HIV in one important aspect, in that the amount of hep C virus in your blood doesn't really tell anyone much about whether or not you are likely to get progressively sick with hepatitis.

High alcohol consumption and being overweight are two factors which might lead to a poorer outcome. It is important that people with chronic hep C reduce or eliminate their alcohol consumption.

Even if you are one of the 75 percent of people chronically infected with the hep C virus, you might still continue to have a good prognosis. Many people with chronic infection (40 percent) have consistently normal liver function tests and these people have a good prognosis. Others with persistently abnormal liver function tests (chronic hepatitis) are likely to develop ongoing liver problems, although these can still develop with normal liver function tests. Some people may develop permanent scarring of the liver. This is called cirrhosis. A very small number of people may go on to develop liver cancer or liver failure. Out of every 100 people initially exposed to the hep C virus, it is thought between 1 and 5 people may develop these extremely serious problems over time. The development of cirrhosis and liver failure appears to be more common in people co-infected with HIV than in people infected with hep C alone.

## **The role of hep C treatments**

Like HIV, hep C treatments are improving, and the standard of care now is to use two types of treatment – ribavirin and interferon – in combination. Combination treatment has a much higher success rate in people with chronic hepatitis C infection than interferon alone.

Not everyone who has the hep C virus will necessarily be recommended to take treatments straight away or at all. You are usually offered hep C treatment if there is evidence of serious liver damage detected on the liver biopsy.

## **Testing for hep C in people with HIV**

Usually exposure to hep C in people with HIV is diagnosed by hep C antibody testing. Rarely, for HIV+ people who may have been exposed to Hep C, there may be a risk of the hep C antibodies not showing up with normal testing (this has been reported only in patients with low CD4 counts). It may be necessary to have a PCR test. Talk to your doctor about this.

## **What about treatment for people with HIV and hep C?**

People with HIV can still be treated for hep C. But it may be more complicated than treating either infection by itself if you are on HIV treatment. Combination treatment with ribavirin and interferon is still the basic hep C treatment standard. Having HIV co-infection of itself is no reason you shouldn't be considered for hep C treatment if necessary, based on the same general treatment criteria above.

However, you should talk carefully with your doctor, because there might be a risk of drug side effects and interactions. Side effects of ribavirin and interferon combination therapy can include:

- ◇ flu-like symptoms;
- ◇ depression;
- ◇ low red blood cell count (anaemia).

If you do experience side effects, talk to your doctor. It may be possible to manage the side effects by:

- ◇ using other medications to reduce any fever and pain;
- ◇ dose-reduction (taking a smaller than normally prescribed dose to reduce side effects);
- ◇ psychological support or antidepressants

If you have a high HIV viral load or low CD4 count, you could be at risk of becoming sick from HIV, so you might be advised to treat HIV first, to reduce that risk.

A small number of people, when they first begin HIV treatment, may experience a flare-up of hep C symptoms and feel quite sick. Some people call this "immune restoration disease": it's a sign your body is restoring some of the immunity lost through HIV. This is usually a short-term problem, and tends to resolve as the HIV treatments begin to work, and your immune system stabilises. But you may still need to be aware of this possibility, and take extra care to avoid anything that might worsen the liver inflammation during this period when you first start HIV treatments, especially if you initially had a low CD4 count.

There are several genetic "types" of hep C virus, each of which is called a genotype. These can be readily distinguished by testing. Genotypes 2 and 3 respond better to treatment than genotypes 1 and 4.

## **What effect does hep C have on HIV?**

There is still some debate about whether hep C affects HIV. Some studies have suggested that infection with the hep C virus can lead to more rapid progression of HIV but others have not.

## **What effect does HIV have on hep C?**

Hep C is a more serious illness in people with HIV disease. Hep C is more severe and progresses more rapidly in patients with HIV. The reasons for this are not known completely but probably relate to the possibility that your body's ability to control hep C may be reduced if you have HIV infection. You should discuss this issue carefully with your GP or an infectious diseases specialist.

## **How does the hep C virus affect HIV treatment choices?**

HIV can still be treated even if you also have the hep C virus. In fact, it's really important to be aware of your HIV viral load and your CD4 count, and to treat HIV to keep it under control.

Hep C can affect HIV treatment choices, because of the potentially toxic effects some HIV drugs have on the liver. There's no accepted list of "best HIV treatments" for people with both HIV and hep C virus. Many different HIV drugs can affect your liver in the short and long term, but you need to consider both viruses, and carefully plan your treatment combination with your doctor. Ritonavir and nevirapine are two HIV drugs which are more likely to affect the liver. Your doctor is likely to regularly check up on how your liver is coping, to make sure the HIV drugs aren't causing any problems.

## **Taking care of your liver with co-infection**

One of the really important things is to have your liver function carefully and regularly tested, so that you know what's going on with this crucial organ. In addition, you may need to be careful about avoiding other risky things which can damage or stress your liver. This can include:

- ◇ binge-drinking or heavy drinking;
- ◇ use of some prescription and other drugs: ask your doctor for more information about drugs which can affect your liver.

Some people claim there is really no safe level of alcohol consumption if you have hep C, although you may find it unreasonable to be totally abstinent. Minimising intake may be the best approach.

Many people with hep C use non-prescribed alternative treatments like herbs. But just because someone says a treatment is "natural" doesn't necessarily mean it's proven or even safe. To look after your liver, make sure that you discuss any herbal treatment with your doctor, and with a well-qualified alternative therapist. The wrong kind of herbal treatment might be dangerous, and even harm your liver. One herb which should not be used if you have hep C-related liver problems is Kava.

Maintaining a healthy, balanced diet is a good idea, although there is no evidence that a special diet is needed for people with hep C.

Vaccination against hepatitis A and B is essential for people with both hep C and HIV. These preventable forms of viral hepatitis can be life-threatening in people with hep C.

## **Hep C transmission and prevention: the effect of HIV**

Injecting drug use involving the sharing of needles and other injecting equipment is the main way the hep C virus is transmitted in Australia. However, people have also contracted the hep C virus through:

- ◇ tattooing and body piercing where equipment is not sterile (eg. in prisons, where there's no access to clean equipment);
- ◇ blood transfusion before blood banks routinely screened donations for the hep C virus (ie. before 1990);
- ◇ pregnancy, from a mother to her child.

Like HIV, the hep C virus needs to be present in the blood in certain amounts in order to be transmissible via blood-to-blood contact. HIV can lead to increased levels of hep C virus in the blood. There's some evidence, therefore, that HIV may increase the risk of hep C virus being transmitted: this has certainly been

shown in mother-to-child transmission. It's important to be aware of this possibility. Sexual transmission of hep C is a controversial subject, but it can occur through blood-to-blood contact. Sexual activity which increases the risk of abrasions or tears in the anus or vagina, such as fisting, may result in transmission of hep C.

## **Considerations around minimising the risk of passing hep C to your partner during sex**

Decisions around safe sex in this context are likely to be very individual but should be based on reliable information. Using condoms may be your preferred option. However, some HIV positive people with HIV positive partners often choose not to use condoms. If you are having sex with someone who is also HIV positive, but not positive to hep C, you may want to discuss with a doctor some of the potential risks for the sexual transmission of hep C (eg. unprotected anal sex; sex during menstruation), and whether you need to use a condom or barrier protection. If you're co-infected with HIV and hep C you may also wish to avoid other sexual activities where there is the potential for blood contact.

## **Injecting drug use**

If you do inject drugs, you need to be 'blood aware'. Any injecting equipment that's re-used, handled, or passed on to other people is potentially infectious. This includes not only needles and fits but tourniquets, spoons and other articles. Never share any part of the injecting equipment and use a new fit every time.

The hep C virus may be transmitted:

- ◇ through blood left in a syringe that is re-used by someone else;
- ◇ through blood left in the water, spoon or filter by a used fit;
- ◇ from blood left on a tourniquet that brushes against an injecting site;
- ◇ in blood on a person's skin eg. when a finger is pressed against someone who's just injected themselves;
- ◇ in any blood left on the filter;
- ◇ from blood left on surfaces or objects like the table, or other injecting equipment.

For more information about safe injecting to prevent hep C transmission, contact your local AIDS council, hepatitis C council or injecting drug user group.

For more information about treatment options for co-infection, talk to your GP or specialist, or contact your AIDS council Treatments Officer.