# **Hepatitis C**

Stuff to know



#### Contents

0	What is hepatitis C?	p. 3
2	Development of the infection	p. 4
3	How hepatitis C affects the liver	p. 6
4	Ways to protect your liver	p. 7
6	The symptoms	p. 9
6	Transmission and prevention of hepatitis C	p. 10
Ø	Co-infections: Hepatitis C and other blood-borne diseases	p. 13
8	Testing and diagnosis	p. 16
9	Treatment	p. 19

## What is hepatitis C?

**Hepatitis C**, also called Hep C or HCV, is a blood-borne virus that causes inflammation of the liver. This viral disease affects liver cells and can ultimately lead to liver damage, failure and cancer. The virus is very strong and can stay alive outside of the body for a long time. It needs very little blood to be transmitted.

#### Facts:

There is no vaccine to prevent a hepatitis C infection.

When treated well, hepatitis C can be cured completely. However, even after the virus has fully cleared, you can still become reinfected.

Some genotypes are easier to treat than others. It is possible to be infected with more than one genotype at the same time.

Injecting drug users are at high risk of becoming infected.



<mark>2</mark>

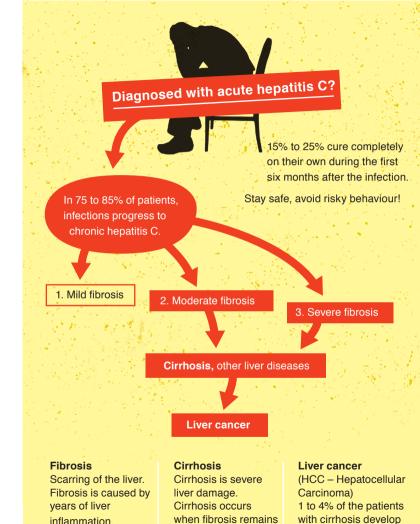
# Development of the infection

The first six months after infection are called the acute phase or acute hepatitis C. Most people don't experience any symptoms in this phase. One in five people get rid of the acute form of hepatitis C without any treatment.

If the virus doesn't clear within the first six months, it progresses into chronic hepatitis C. Chronic hepatitis C can only be cured with medical treatment. There is no proof that traditional healers and herbal remedies can get rid of the virus.

Between 10% and 20% of those with chronic hepatitis C develop cirrhosis, or severe liver damage. Cirrhosis can take between 20 and 30 years to develop. At this stage, your liver may stop working altogether. Some patients may need a liver transplant. A small percentage (1 to 4%) of people with liver cirrhosis develop liver cancer.





untreated.

liver cancer.

# How hepatitis C affects the liver

Hepatitis C is a liver disease. Immediately after becoming infected, the virus starts attacking your liver. Regardless of whether you experience any symptoms.

The liver plays a major role in the functioning of the body.



The liver breaks down harmful substances that enter the body, like drugs, medicines and alcohol.



It stores substances such as vitamins, and releases them as soon as your body needs them.



It produces enzymes that help your body function properly, for instance by helping wounds heal.

A damaged liver cannot properly break down harmful substances. It also produces and stories fewer enzymes and vitamins that you need to stay healthy.

# 4

# Ways to protect your liver

There are certain things you can do to slow down the progression of damage to your liver.



1: Try to avoid alcohol. If that's not possible, minimise your intake.

Most importantly, don't drink excessive amounts in one session.

2: Always use any medication as prescribed. Aspirin, ibuprofen, paracetamol, benzodiazepines and antibiotics are all broken down in the liver and should be taken with caution.





**3:** Minimise the consumption of drugs that are broken down by the liver. Methadone is relatively safe, but avoid speed and benzos. These are hard on your liver.

4: Try to lose weight. Being overweight can cause fatty liver disease and diabetes, both of which harm your liver.



5: A balanced diet is important.

Eat healthy and varied food.

Cut down on fatty foods,

minimise coffee intake and
drink plenty of water.

**6:** Exercising regularly keeps you fit and healthy and improves your mood.





**7:** Get lots of sleep and avoid stressful situations as much as possible.

8: Cut back and, if possible, quit smoking. Tobacco is harmful to the liver.



## 5 The symptoms

Only a few people experience symptoms in the first six months after infection. For most people, it can take 15 to 30 years before they experience any symptoms.

Symptoms can be very vague and feel like the flu.

#### Possible symptoms include:





# Transmission and prevention of hepatitis C

The hepatitis C virus is **transmitted by blood-blood contact**; when your blood comes into contact with the blood of someone who's infected.

There are various ways this can happen:

1

The biggest infection risk is sharing and reusing contaminated needles and syringes.

Sharing other drug use materials, such as pipes, snorting straws etc. can be risky too.



Always only use your own gear.
Use a new needle and syringe each time you inject.

2

Sharing daily hygiene products like toothbrushes, razors, and nail clippers.

Use your own. Don't borrow someone else's or lend out yours



3

Having unprotected anal sex.

Long and rough sex sessions also increase the risk of small wounds and transmitting blood.



Practice safe sex. Use condoms and lubrication.
This will also protect against co-infections like HIV and other sexually transmitted diseases (STDs).

4

### Other practices that have a risk of blood-blood contact:

- · Having a manicure or pedicure;
- · Getting piercings and tattoos;
- · Undergoing acupuncture;
- · Receiving medical treatment with donor blood.

5

In rare cases, giving birth can transmit hepatitis C from mother to child:

If you are infected and want to have a baby, ask your doctor for advice.



Hepatitis C is not transmitted through normal social contact, like holding hands, kissing, sneezing, sharing a drink or using the same toilet. It also cannot be transmitted through saliva or insect bites.





### Co-infections: Hepatitis C and other blood-born diseases

Infection with more than one virus at the same time is called **co-infection**. This complicates all treatments.

Even if you are infected with hepatitis C, you can still contract other genotypes (**reinfection**) or other illnesses (**coinfection**). Avoiding contact with other people's blood or bodily fluids remains very important.



HIV is spread through bodily fluids, such as (menstrual) blood, semen, vaginal fluids and breast milk. This virus compromises the immune system, making it harder for the body to fight the hepatitis C virus.



To prevent HIV infection, avoid blood-blood contact and always use condoms.



#### **Hepatitis A and B**

Co-infection with hepatitis A or B speeds up damage to the liver cells.

Vaccination is an effective way of preventing hepatitis A and B.

**HEPATITIS A** is transmitted through contact with contaminated faeces. People usually get infected by eating or drinking contaminated products.

Wash your hands regularly, especially before preparing food.





**HEPATITIS B** is transmitted through blood-blood contact and unsafe sex.

The surest way to protect against hepatitis B is to get vaccinated.



Use the same precautions as for hepatitis C.

#### **Tuberculosis (or TB)**

Tuberculosis is a bacterial infection that is transmitted through the air, mainly by coughing and sneezing. Tuberculosis is a serious lung disease. It can also affect the bones, joints and kidneys.

Although many people have latent tuberculosis, only active tuberculosis is contagious. Hepatitis C and HIV can trigger latent Tuberculosis

**Injecting drug users are at higher risk** for developing active tuberculosis, as are other people with a weakened immune system.

- ► The best way to prevent tuberculosis is to avoid contact with patients. If necessary, protect yourself by wearing a facemask.
- The BCG vaccine can reduce the risk of catching tuberculosis, but cannot prevent infection completely.
- Cover your face when coughing or sneezing.
- Always finish the entire treatment. Otherwise, the TB can become drug-resistant.

If you are currently taking Tuberculosis medication, talk to your doctor before starting hepatitis C medication and vice versa.

## 8

### **Testing and diagnosis**

Some people have been infected for up to 30 years without noticing any symptoms or feeling sick. This doesn't mean the virus isn't active. In fact, it continues to damage the liver.

The sooner you know about the infection, the easier it is to treat.

#### Testing for hepatitis C:

Several tests are needed to diagnose hepatitis C.

1: The Antibody test shows whether you have ever been exposed to hepatitis C. Antibodies are proteins made by the body against hepatitis C. They can usually be detected within two or three months after infection. A negative test result means there is no hepatitis C infection. However, it is advised to test again if the most recent exposure risk was within 3 months previous to the test.

A positive test result does not mean you are still infected. It does not show whether you will develop chronic hepatitis C. A positive antibody test is followed by a PCR test.

- 2: The PCR test shows if you still have the virus in your body. It can also detect the amount of virus present in your blood. If the test results are positive, another test will determine the genotype.
- **3:** The **Genotype test** determines which of the eleven genotypes you have.

#### **DIAGNOSING HEPATITIS C**

#### Antibody test

#### **Negative**

No hepatitis C virus detected! Remember that a negative result is only good for past exposure. Stay safe – avoid risky behaviour

#### **Positive**

Test results are positive antibodies detected

#### Follow up PCR blood test

- 1: For the hepatitis C virus infection
- 2: The amount of the virus ( HCV RNA)

#### **Negative?**

No further action is needed!

#### Positive?

Hepatitis C infection detected

#### Follow up Genotype test Genotype confirmed

Two things determine the appropriate treatment:

- 1: The genotype you are infected with, and
- 2: the condition of your liver.

#### TESTS TO MEASURE LIVER CONDITION

There are several tests that can assess how much damage is done and how well the liver still functions. The doctor will decide which tests are appropriate. Examples include:

- Blood tests. These detect liver damage by measuring ALAT and ASAT liver values.
- A Fibro Scan measures the elasticity of the liver with sound waves. High elasticity can indicate liver disease.
- A Liver Echo helps a doctor see how healthy your liver still is.
- A Liver Biopsy means that a piece of liver tissue is removed for microscopic study.



## Treatment

Hepatitis C infection can be cured completely!

#### When to start treatment?

The success rate and length of treatment vary from person to person and depend on co-infections, your health, your ability to adhere to the strict treatment regime and how much alcohol and other drugs you use.



Contact your doctor regularly even if you don't want to start treatment (yet).

#### Which Medication?

Hepatitis C has traditionally been treated by a combination of **peg-interferon and ribavirin**. For genotype 1, the success rate of this treatment is 50% after one year. For genotype 2 or 3, the chance of full recovery is 80% after six months.

Side effects are common with interferon. These can be so severe as to make people quit treatment. Due to changes in the treatment regime, this is less common nowadays.

#### **New Medication**

Several new medications have recently entered the market: the direct-acting antivirals. The most common are sofosbuvir (sovaldi), telaprevir and boceprevir. These have a higher success rate, shorter treatment time and fewer side effects. Unfortunately, these new medications are expensive and not yet widely available.

Stay in touch with your social workers and/or doctor to find out when these new medicines become available near you.

### Connection side effects treatment and symptoms hepatitis C

Weariness and listlessness are common side effects of Hepatitis C, but also of certain treatments (especially those that use interferon).

It helps to know that being irritable, insomniac or anxious can all be caused by the illness and the treatment. Not everyone experiences these side effects. For those who do, though, they can be quite drastic, negatively impacting your relationships and social life.



#### Dealing with the side effects

It helps a great deal if you're motivated to finish the treatment. Having a good relationship with your treatment provider also helps.



Lastly: getting enough sleep, eating regularly, keeping in touch with friends and staying active are all extremely helpful.



### Important addresses

For information about how hepatitis C medication interacts with other medications:

**→** www.hep-druginteractions.org

Amsterdam, The Netherlands / October 2015

#### Colophon

General Editor: Hatun Eksen and Ingrid Bakker. Feedback: Guido van Diepen and Kakhabar Akhvlediani. Chief editors: Joost Breeksema and Hatun Eksen.

### **MAIN***line*

#### **Mainline Foundation**

111, Frederik Hendrikstraat Amsterdam, 1052 HN, Netherlands Tel: 020 682 2660

E: info@mainline.nl

# **Hepatitis C**

Stuff to know

## **MAIN***line*

#### **Mainline Foundation**

111, Frederik Hendrikstraat Amsterdam, 1052 HN, Netherlands Tel: 020 682 2660 E: info@mainline.nl www.mainline.nl