

EVERYTHING YOU SHOULD KNOW ABOUT HEPATITIS C:

A brochure for patients

1. WHAT IS HEPATITIS C

Basic information and statistics

The term hepatitis stands for inflammation of the liver which is the biggest internal organ in charge of more than 500 vital functions in our body. It processes nutrients, it filters the blood, and it also fights infections. Although alcohol abuse, toxins, some medications and diseases can cause hepatitis, the most common reason for it is a virus (A, B, C, etc.) In the following brochure you will find information particularly about hepatitis C.

According to a 2017 WHO report, currently there are 71 million people infected with hepatitis C; yet, only 20% of them were diagnosed in 2016, out of which just 7% (or around 1.5 million people) received medical treatment. Hepatitis C is the seventh deadliest cause globally and the first one to be responsible for liver cancer. Not only the liver is affected; the infection may lead to arthritis, vasculitis, cryoglobulinemia, insulin resistance, etc.

Transmission

- Mainly by blood - every blood-to-blood manipulation poses some risk;
- During a sexual intercourse - there is almost no risk for heterosexual couples but the disease is common among men who have sex with men;
- Perinatally - an infected mother could transmit it to her newborn while giving birth; the risk is estimated to be around 3-6%, and if combined with an HIV infection, it can go up to 10-20%.

It's important to remember that HCV is not transmitted through random contacts, such as sneezing, coughing, hugs, use of the same kitchen utensils, etc.

Stages of the disease

- Acute stage - a small number of the infected show symptoms between the third and the twelfth week after infection). These might include flu-like symptoms, icterus, fever, nausea, vomiting, darker urine, etc.

Unfortunately, in account to their typicality, they can be misinterpreted as the common cold, for instance.

Provided that 6 months after getting infected the patient has a negative result on their PCR RNA test, they are pronounced hepatitis-free because of the defensive power of their immune system (this happens with

approximately 15% of all the infected). The antibodies in the bloodstream, however, are not protective, and they usually remain for a life time.

- Chronical stage - if after 6 months after diagnosis the PCR RNA test is positive, the patient is considered infected in a chronical stage and needs treatment. Due to the lack of symptoms and profylaxis, very few of the patients are timely diagnosed. Around 20% of those infected for more than 20 years might develop liver cancer or cirrhosis.

2. WHEN AND WHERE TO GET TESTED

Risk groups who require testing*

- Baby boomers (born between 1945 and 1965)
- People with high levels of liver enzymes
- People who have undergone a blood transfusion/transplantation
- Haemodialysis patients
- People who often get dental or other medical procedures
- People who have used drugs (intravenously or intranasally), even if it was only once
- Men who have sex with men (MSM)
- HIV-positive patients
- Former or current prisoners
- People with tattoos and piercings
- Medical staff in frequent contact with blood products
- People who often have cosmetic procedures (manicure, pedicure, fillers)

*This is not a comprehensive list; it is possible that you don't fall under any of these categories and you are still infected.

Where can you get tested

Go to your local health service place or call your general practitioner for more information. Different countries apply different practices regarding how one can get tested for hepatitis C, so this can be free, paid in a private lab, or during a screening campaign organized by a non-governmental organization.

There is no vaccine against hepatitis C and in most cases there are no symptoms, thus a test is recommended every couple of years.

Types of tests

- Anti HCV is the most common test. It is antibody test and it is positive after a person has been infected, regardless of whether he/she has been

treated or not. If you are in doubt that you've had a risk contact, do this test after 6 weeks. It can't determine whether the virus has been cured or is still present. This is a primary test and if positive, it requires a more detailed and complex one (PCR RNA).

- PCR RNA is the secondary test, whose aim is to check if this is a current or a past infection. It estimates the quantity of the virus in the blood. The result can be:

-> negative - this means that a person has been naturally healed thanks to his/her immune system;

-> positive - the person needs treatment.

3. WHEN YOU HAVE A POSITIVE TEST FOR HEPATITIS C

If your test is positive

- After you have become aware of your diagnosis, you might experience an emotional rollercoaster with fear, guilt, and confusion at the same time. What really helps here is talking to a close person or to someone who has already been in the same boat. You don't have to fight this alone. Search help and information from your local NGO or from a respected online source (World Hepatitis Alliance, Liver Patients International, World Health Organization, Center for disease control, European center for disease control).

- Make sure your close ones get tested too. Although hepatitis C is mainly transmitted through blood, there is a minimum risk of infection from cuts or scratches, or if the same hygienic materials have been used (toothbrush, razor, etc.)

Change in lifestyle

First and foremost, try to reduce or totally quit alcohol. There are studies that prove that it increases the viral activity, so in order to protect your liver, it is highly recommended that you not consume any alcohol whatsoever.

Ready-to-cook food, food rich in conservatives, additives, coloring agents, artificial fat are to be avoided, since they trouble the liver and are a factor for steatosis (fatty liver).

The quality of life will be improved if you consume more fruit, vegetables, fish and non-fatty meat and if you exercise regularly.

Don't take any herbs or supplements unless you've consulted a medical expert.

Hepatitis C can and should be treated!

If someone advises you not to take any action because the treatment is difficult and inefficient, he/she is probably talking about the old interferon treatments. In the past several years the new method is with DAA (direct antiviral agents), i.e. with pills, and there are almost no side effects, which allows patients to keep on with their daily lives. The medication is suitable for a wide range of patients, including those with decompensated cirrhosis, haemodialysis, etc. The success rate of the treatment is above 95%.

Hepatitis C has six genotypes (variants) with numerous sub-genotypes. The genotype is a classification of the virus based on its genetic material. Earlier DAA were prescribed with regard to the genotype but the current standards of treatment are the so-called pan genotypic regimen that works with all variants.

Types of DAA

<i>patent name</i>	<i>international nonproprietary name</i>	<i>manufacturer</i>
Maviret *	glecavir, pibrentasvir	AbbVie
Viekira+Exviera	dasabuvir, ombitasvir, paritaprevir, ritonavir	AbbVie
Vosevi*	sofosbuvir, velpatasvir, voxilaprevir	Gilead
Epclusa*	sofosbuvir, velpatasvir,	Gilead
Harvoni	sofosbuvir, ledipasvir	Gilead
Zepatier	elbasvir, grazoprevir	MSD
Rebetol	ribavirin	MSD
Copegus		Roche

*The DDAs marked with * are pan genotype regimens.*

4. BEFORE THE TREATMENT

Find a good gastroenterologist or infectiologist in order to get the suitable medical treatment for hepatitis C. They have to examine you, carry out a number of tests, and decide of the best option for you. You will get a fibrosis test (the scarring on the liver); the most common methods for that are ultrasound elastography (e.g. via Fibroscan) and blood biomarkers APRI and FIB-4. The device sends a sound wave and calculates the speed with which it passes through the liver therefore estimating its density. This is a non-invasive procedure which does not require a needle or blood taken from the vein. The results are clear right away and show the condition of the liver, which allows the doctor to

diagnose and monitor the progression of the disease along with the treatment and the concomitant factors. The results from this test can also help predict and prevent a number of complications. The manipulation itself is fast, easy, and completely painless. The only sensation the patient may feel is a slight vibration on the skin. The blood biomarkers use the relation between several blood indicators, which requires a sample of the patient's blood.

Fibrosis has four degrees (fourth being the highest or so-called cirrhosis), but the modern treatment is effective enough even against serious damage, so don't worry and discuss everything with your doctor. Tell him/her about all the medication, herbs, and supplements that you get. It is absolutely forbidden to consume St. John's wort (*Hypericum perforatum*) and grapefruit.

Bear in mind that the most significant test which will show whether you've been healed or not is the negative PCR RNA three months after the end of treatment. This is also called a sustained virological response.

The successful treatment and the presence of antibodies does not protect you from another future infection.

ABOUT HEPACTIVE ASSOCIATION

HepActive Association was founded in Bulgarian in 2009 by a group of patients with the sole purpose to raise the awareness about hepatitis as a socially significant disease, and to give assistance to anyone in need. The association offers free testing for hepatitis B and C, emotional and practical support for patients with hepatitis, linkage to care in a specialised clinic, and free-of-charge legal aid in cases of violated rights. www.hepactive.org

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