



Nutrition issues in Hepatitis C

What is Hepatitis C?

The Hepatitis C virus (HCV), or commonly known as Hepatitis C, is a virus that infects and inflames the liver, causing acute and chronic disease. Twenty-five percent of people who are infected with HCV clear the virus without treatment within six months of infection. Of the remaining 75% who develop chronic infection, Hepatitis C may progress to liver fibrosis, cirrhosis, and in 2% of cases, hepatocellular carcinoma.¹ Factors influencing disease progression include: duration of infection, alcohol, male sex, elevated ALT, HIV co-infection, obesity, and diabetes.²

Transmission

Hepatitis C is spread through blood-to-blood contact. In Australia, the most common form of transmission is through sharing of equipment and needle syringes used to inject drugs.¹

Diagnosis and Treatment

There are two types of tests to confirm HCV infection. Initial testing includes hepatitis C antibody test. It may take 3 to 6 months for these tests to become positive after infection occurs, therefore a negative antibody result may not exclude acute HCV infection in the early phases of diagnosis.¹ If Hepatitis C antibody is positive, additional testing to detect Hepatitis C RNA PCR (polymerase chain reaction) is needed.¹ There are 6 known genotypes and drug treatments vary depending on the type.³

Treatments have changed significantly over the last few years. People with HCV can now clear the virus with the new direct acting antiviral treatments (DAAs) available. Side effects are minimal. It is estimated that 95% of people with HCV are cured with these treatments.⁴ Previous treatment regimens were longer, required injections, had greater side effects and the chance of a cure was mediocre.

Since March 2016 all persons diagnosed with HCV have free access to treatment with DAAs.⁵ To be eligible a person must have a Medicare number. A script can be written either by an authorized nurse practitioner who is experienced in the treatment of chronic HCV infection, a GP who is experienced in managing HCV, a GP in consultation with any of the specialist doctors, a gastroenterologist or infectious diseases physician experienced in treating chronic HCV infection.

The Australian recommendations and consensus statement on the management of HCV infection are updated regularly in response to new evidence.⁴

Note: DAAs are not recommended for women who are pregnant or breastfeeding. Children under 18 years old are not eligible on the PBS and will require a specialist paediatric referral.

Nutrition issues (including symptoms)

Hepatitis C is associated with insulin resistance, and there is a higher prevalence of diabetes among people with HCV.²

The use of DAAs can have possible mild adverse effects and impact on nutritional status. These include; fatigue, headache, diarrhoea and nausea. Anaemia is a possible side effect of ribavirin HCV treatment.¹

Nutrition practice tips

Nutrition intervention during HCV treatment should target symptom management and ensure good nutritional status. Whilst dietary advice should be individualised, healthy eating guidelines recommended for the general population are also appropriate for the majority of people with HCV.⁶

Complementary medicines such as St John's Wort can decrease the effectiveness of DAAs, therefore should be avoided.

Concomitant use of milk thistle may result in increased plasma concentrations of simeprevir. There may be also interactions between DAAs and grapefruit juice, diosmin and Saw palmetto (*Serenoa repens*).⁷ Full information available at www.hep-druginteractions.org.

Alcohol intake should be reduced to below the national alcohol guidelines and abstinence is encouraged during treatment due to the increased risk of liver cirrhosis.⁸

Non-alcoholic fatty liver disease is associated with HCV. It is not clear whether people remain more likely to develop fatty liver disease after clearing the virus. As obesity is associated with an increased risk of Non-Alcoholic Fatty Liver Disease (NAFLD) weight management, increasing physical activity and a diet based on the Mediterranean diet are important in reducing the risk of developing NAFLD.⁹⁻¹¹

Recent research has shown that the risk of developing liver cancer and diabetes is reduced in people who drink 2-3 cups coffee/day. This represents an important change as it is a common belief among people with HCV that coffee is bad for the liver.¹²

Relevant websites:

- Hepatitis Australia
<https://www.hepatitisaustralia.com/cure-hep-c/>

Each Australian territory or state have a state based organization and website and are members of Hepatitis Australia.

References:

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