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Alcohol and Liver Disease

Drinking too much alcohol can lead to three main types of liver conditions: fatty liver, hepatitis and 'scarring' of the liver (cirrhosis). It can also lead to other health problems. This leaflet also includes information about non-alcoholic fatty liver disease.

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Many of us enjoy an occasional alcoholic drink, and our body can cope with drinking a small amount of alcohol - but it really is a small amount. People who drink 1-2 units a day are statistically at a slightly lower risk of heart attack than teetotallers, but drinking more than that increases your risk of several cancers and heart disease, as well as liver disease - that news seems to be taking longer to filter through.

How much alcohol is too much?

Drinking more than the recommended safe limits of alcohol can cause significant problems with your health, and the more alcohol you drink, the greater the risks.

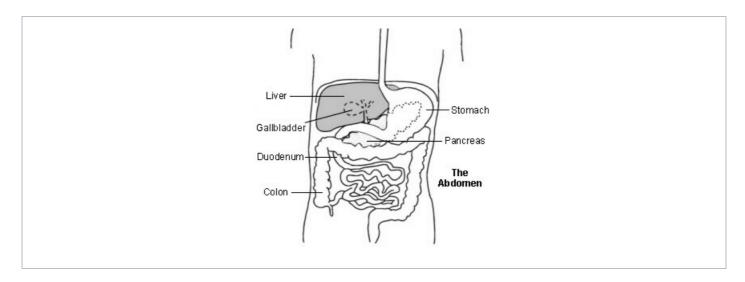
In the UK, the Chief Medical Officer recommends that men and women should stick to a maximum of 14 units a week. Read more about alcohol and sensible drinking.

"If you think that your drinking is having a negative impact on your relationships or your ability to work, or that it could be exacerbating any existing health conditions, you may wish to think about reducing how much you drink."

Source: Professor Sir lan Gilmore (https://patient.info/health/alcohol-and-liver-disease/features/can-mindful-drinking-help-you-cut-your-alcohol-intake)

Symptoms of liver disease

The liver is in the upper right part of the tummy (abdomen), just below the ribs.



Drinking too much alcohol leads to three main conditions which can seriously threaten your health:

- Fatty liver.
- Hepatitis.
- 'Scarring' of the liver (cirrhosis).

Any, or all, of these conditions can occur at the same time in the same person.

If you have early-stage liver disease (fatty liver or mild hepatitis), you may not get any symptoms. As the condition progresses, you may gradually develop symptoms such as:

- Feeling sick (nausea), being sick (vomiting) and feeling generally unwell.
- Your skin and eyes appearing yellow (jaundice).
- · Abdominal pain and swelling.
- · Swelling of your ankles and lower legs.
- · Itchy skin.
- Your urine becoming dark in colour.
- Your stools (faeces) becoming pale or very dark/black because of bleeding into the upper part of your gut (bowel).

Fatty liver

A build-up of fat occurs within liver cells in most people who regularly drink heavily. In itself, fatty liver is not usually serious and does not cause symptoms. Fatty liver will usually reverse if you stop drinking heavily. However, in some people the fatty liver progresses and develops into alcoholic hepatitis.

A similar condition can occur in people who don't drink too much alcohol. Read more about non-alcoholic fatty liver disease.

Alcoholic hepatitis

Hepatitis means inflammation of the liver. The inflammation can range from mild to severe.

Mild hepatitis may not cause any symptoms. The only indication of inflammation may be an abnormal level of liver chemicals (enzymes) in the blood, which can be detected by a blood test. However, in some cases the hepatitis becomes persistent (chronic), which can gradually damage the liver and eventually cause cirrhosis.

A more severe hepatitis tends to cause symptoms such as:

- Feeling sick (nausea).
- Yellowing of your skin or the whites of your eyes (jaundice), caused by a high level of bilirubin a chemical normally metabolised in the liver.
- · Generally feeling unwell.
- · Sometimes, pain over the liver.

A very severe bout of alcoholic hepatitis can quickly lead to liver failure. This can cause deep jaundice, blood clotting problems, confusion, coma and bleeding into the guts. It is often fatal.

The main treatment for alcoholic hepatitis is to provide adequate nutrition (this sometimes involves passing liquid feeds through a tube in the stomach) and steroids.

Alcoholic cirrhosis

Cirrhosis is a condition where normal liver tissue is replaced by scar tissue (fibrosis). The scarring tends to be a gradual process. The scar tissue affects the normal structure and regrowth of liver cells. Liver cells become damaged and die as scar tissue gradually develops. So, the liver gradually loses its ability to function well. The scar tissue can also affect the blood flow through the liver which can cause back pressure in the blood vessels which bring blood to the liver.

About 1 in 10 heavy drinkers will eventually develop cirrhosis. It tends to occur after 10 or more years of heavy drinking. Cirrhosis can also develop in people who have never had alcoholic hepatitis.

Cirrhosis can happen from many causes other than alcohol. If you have another persistent liver disease and drink heavily, you are likely to increase your risk of developing cirrhosis.

Cirrhosis can lead to end-stage liver disease. However, in the early stages of the condition, often there are no symptoms. You can get by with a reduced number of working liver cells. But, as more and more liver cells die and more and more scar tissue builds up, symptoms start to appear. The eventual symptoms and complications are similar to a severe episode of hepatitis (listed above). However, unlike a bout of severe hepatitis, the symptoms and complications tend to develop slowly. The scarring and damage of cirrhosis is usually permanent and cannot be reversed. See separate leaflet called Cirrhosis for more details.

What happens when you drink alcohol?

When you drink alcohol, it is absorbed into the bloodstream from the stomach and intestines. All blood from the stomach and intestines first goes through the liver before circulating around the whole body. So, the highest concentration of alcohol is in the blood flowing through the liver.

Liver cells contain chemicals (enzymes) which process (metabolise) alcohol. The enzymes break down alcohol into other chemicals which in turn are then broken down into water and carbon dioxide. These are then passed out in the urine and from the lungs. The liver cells can process only a certain amount of alcohol per hour. So, if you drink alcohol faster than your liver can deal with it, the level of alcohol in your bloodstream rises.

What are the problems of drinking too much alcohol?

Your liver and body can usually cope with drinking a small amount of alcohol. Indeed, drinking a small amount of alcohol (1-2 units per day) may help to prevent heart disease and stroke.

However, drinking over the recommended limits can be harmful. In the UK, deaths due to alcohol-related diseases (particularly liver disease) have risen considerably over a period of 20 years. Read more about alcoholism and problem drinking.

Signs of alcohol poisoning

The symptoms and signs of alcohol poisoning are very variable but include:

- Being sick (vomiting).
- Confusion and reduced level of consciousness (may pass out).
- · Fits (seizures).
- Slow or irregular breathing.
- Low body temperature.

What tests will I need?

A doctor may suspect that you have liver problems from your symptoms and from a physical examination - for example, they may detect that your liver is enlarged, or that you are retaining fluid. They may especially think of liver problems as a cause of your symptoms if you have a history of heavy alcohol drinking. Some tests may be done:

- Blood tests may show abnormal liver function. There are a number of liver function tests (LFTs) that look at levels of
 various chemicals in the liver. If the liver is damaged or becomes inflamed then the levels of these rise and can be detected
 on a blood test as they are released into the bloodstream. Even though a number of different LFTs are tested, you only need
 to give one blood sample for all of them.
- Ablood test to check how well your blood clots. Helping your blood to clot is one of the functions of the liver and you may be at higher risk of bleeding if your liver is damaged.
- Ablood test for anaemia. People with alcohol problems can be deficient in a vitamin called vitamin B12, which can lead to anaemia
- An ultrasound scan may show that you have a damaged liver. This painless test is the same type as pregnant women have
 when their baby is being checked. Some lubricating jelly is placed on the skin of the tummy over the liver, and a handheld
 ultrasound scanner is moved across the skin. This shows an image of the liver on a monitor and liver damage or enlargement
 can be seen.
- A small sample (biopsy) of the liver may be taken to be looked at under the microscope and so confirm the diagnosis. The
 'scarring' of the liver caused by liver damage (cirrhosis), or the typical features of liver cells with alcoholic hepatitis, can be
 seen on a biopsy sample. This is usually done by a liver specialist and involves freezing an area of the skin with a local
 anaesthetic above the liver and pushing a small needle into the liver to obtain a sample.

What's the treatment?

If you have alcoholic liver disease then you must stop drinking completely. Fatty liver and mild alcoholic hepatitis usually recover if you can manage this. Also, mild cirrhosis will often not progress if alcohol is avoided for life. In severe cases, however, where liver scarring is extensive, a liver transplant may be the only possible treatment option.

If you feel that you are drinking more alcohol than you should, or that you cannot stop drinking then treatment and support are available. Learn about treatment options for conditions caused by drinking too much alcohol. Remember that prevention is the best option.

What should I do if I have alcohol-related liver disease?

For all types of liver disease caused by alcohol, you should stop drinking alcohol completely. Also, you may be referred to a dietician to review your diet. This is because many people who drink heavily do not eat properly and need advice on getting back into eating a healthy diet. Vitamin supplements may be prescribed for a while.

- If you have fatty liver, or alcoholic hepatitis which is not severe, you should fully recover from these conditions if you stop drinking alcohol.
- If you have severe hepatitis and require hospital admission, you may require intensive care treatment. Some people with severe hepatitis will die.
- If you have 'scarring' of the liver (cirrhosis), stopping drinking alcohol can improve your outlook. It depends on how severe the cirrhosis has become. If cirrhosis is diagnosed when it is not too advanced and you stop drinking alcohol, the cirrhosis is unlikely to progress. However, the cirrhosis and symptoms will almost certainly get worse if you continue to drink alcohol. In severe cases where the scarring is extensive and the liver can barely function, a liver transplant may be the only option.

You are very unlikely to develop liver problems caused by alcohol if you drink within the recommended safe limits.

Do you need help to stop drinking?

Help and treatment are available if you find that you cannot stop drinking alcohol. Counselling and support from a doctor, nurse, or counsellor are often all that is needed. A detox (detoxification) treatment may be advised if you are alcohol-dependent. Referral for specialist help may be best for some people. If you feel that you need, or a relative or friend needs, help about alcohol then speak with your doctor. Read more about alcohol withdrawal and detox.

Further reading & references

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