Alcohol and your liver

Drink enough alcohol and you are likely to damage your liver. This can happen quickly or over a longer period. Increasing numbers of people in the UK are being hospitalised and dying, as a result of liver disease associated with alcohol.

Up to one in three adults drink enough alcohol to create a risk of developing alcohol-related liver disease.

FACTS and FIGURES

A major risk factor for liver disease is alcohol consumption, but the evidence is unclear as to the precise relationship between the amount of alcohol you drink and the incidence of liver disease.

For example, an Italian study found that liver disease risk increased after consuming 30g (about 3.8 units) of alcohol per day and that after this risks increased with the amount of alcohol consumed. Whereas a Chinese study found that 20g of alcohol (about 2.5 units) per day doubled the risk of liver disease, but thereafter found the risk did not increase with each additional dose.

A number of studies suggest that consuming enough alcohol might trigger the disease process, but that higher levels of alcohol consumption do not have any additional impact (a relationship known as a threshold effect).

Although the figures vary, it's still clear that the more alcohol you drink, the more likely you are to increase your risk of liver disease in some way, particularly if you are genetically predisposed to it (see below.)

Other risk factors include:

- **Alcohol dependence**: However, around 8 in 10 people with alcohol dependence will not have liver damage.
- **Gender**: Women are more susceptible to alcohol-related liver damage than men, with one study suggesting the risk is almost 50% higher.
- **Body mass index**: Being overweight or obese increases the risk of alcohol-related liver disease.
- **Race**: Some data suggests people of African origin are more susceptible than Caucasians.
- **Genetic predisposition**: There's no clear data on this, but the fact that only a minority of heavy drinkers develop liver disease suggests a genetic predisposing factor.
- **Pattern of drinking**: Drinking alcohol only at meal times appears to carry a lower risk of alcohol-related liver disease than other patterns of alcohol consumption.

PROGRESSION

There are two patterns of liver disease; acute (known as acute alcoholic hepatitis) and chronic, which reflect whether it develops over a matter of months or years respectively.

Chronic Liver Disease

There are four stages of chronic liver disease.

1. The commonest and mildest form of liver damage is a '**fatty**' liver. This can be identified by blood tests, and is reversible with abstinence from alcohol.

2. The next step cannot be identified by blood tests, but a liver biopsy will show inflammation in addition to the excess fat. This is called **steatohepatitis**. In severe cases, **jaundice** may develop. A diagnosis of **acute alcoholic hepatitis** can then be made (see below).

3. At the next stage, **fibrosis** (scar tissue) is present. Again, this cannot be detected by blood tests or routine scans.

4. **Cirrhosis** occurs when the fibrosis reaches the stage when the normally soft liver is divided into thousands of pea-sized pockets of liver tissue, wrapped in fibrosis. Once cirrhosis develops, the prognosis partly depends on whether or not you continue drinking. People with compensated cirrhosis – meaning they have no symptoms – and who then stop drinking, have an 80% chance of being alive after 10 years.

   The majority of those with decompensated cirrhosis – displaying symptoms – will die within three years.

Acute Liver Disease - known as Acute Alcoholic Hepatitis

This type of liver disease is caused by heavy drinking over a period of months. This is the pattern that is likely to occur when young people get liver disease, although older people who drink excessively later in life are also susceptible. It is potentially reversible with no long-term effects if you recover and stop drinking alcohol completely.

However, 70-90% of patients with acute alcoholic hepatitis – likely to be those who have been drinking for longer, and therefore unlikely to be young people - will have cirrhosis (see above). Jaundice is the usual first symptom. In hospitalised cases, there's a mortality rate of around 50% associated with acute alcoholic hepatitis. Liver transplants are usually not an option, partly because of the history of recent alcohol abuse.

ADVICE and GETTING HELP

The majority of patients who develop cirrhosis will have been unaware of the earlier stages of the disease, unless tests have been carried out. Early symptoms of liver disease can be non-specific, including fatigue, nausea, vomiting, diarrhoea or abdominal pains. For heavy drinkers, early monitoring could help detect liver damage before it reaches an advanced stage.

Eventually, when liver damage does reach a more advanced stage, specific liver-related symptoms can develop because of:

- **Liver failure**: seen as jaundice, or encephalopathy – mental effects caused by the liver's inability to clear toxins from the blood.
- **Portal hypertension**: an increase in pressure in the vein draining blood in to the liver, which can lead to bleeding in the gut.
- **Cancer**, with the development of the liver cancer known as hepatocellular carcinoma.

It is therefore important, if you are concerned in anyway about your drinking, to discuss it with your GP.

LINKS

British Liver Trust - the national charity for adults with liver disease. The trust campaigns to highlight the problem of liver disease in the UK, runs a helpline (0800 652 7330) and has set up a website at **www.britishlivertrust.org.uk**

Drinksafely - a website designed by the liver team at Southampton University Hospitals Trust, it covers both the positive and negative aspects of alcohol. It is the home of the Drinkulator tool, which can help you assess your own drinking profile **www.liverinfo.org.uk**

For help in Scotland, you can contact **Alcohol Focus Scotland**, on 0141 572 6700 or **www.alcohol-focus-scotland.org.uk**

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References can be supplied on request

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