

BACKGROUND MEDIA INFORMATION

Fast facts about liver disease

Liver disease

Liver, or hepatic, disease comprises a wide range of complex conditions that affect the liver.

- Liver diseases are extremely **costly** in terms of **human suffering, general practitioner and hospital visits, and premature loss of productivity**.¹
- In 2013, **29 million people** in the European Union (EU) were suffering from a chronic liver condition.²
- More than 30 million people in the USA have liver disease – which equates to 1 in 10 Americans.³

Cirrhosis

*Cirrhosis is late-stage liver disease, which occurs when normal liver tissue is replaced by scar tissue (fibrosis).*⁴

- Globally, liver cirrhosis was estimated to be responsible for over **one million** deaths in 2010, which equates to approximately 2% of all deaths worldwide.⁵
- It is estimated that in 2013, liver **cirrhosis resulted in 170,000 deaths** in Europe.¹
- **Cirrhosis** is the leading cause of **adult liver transplants** in Europe with 57,529 carried out between 1988 and 2013.⁶

Liver cancer

*Liver cancer is cancer that begins in the liver. The most common form of liver cancer is hepatocellular carcinoma (HCC), which starts in the main type of liver cells, hepatocytes.*⁷

- Worldwide, liver cancer is the **sixth most common cancer**.⁸
 - In 2012, **63,500** new cases of liver cancer were diagnosed in Europe, which were responsible for around **48,000 deaths** in the region.⁹
- Liver cancer is the **second most common cause of cancer death** worldwide. There were 745,000 deaths due to liver cancer in 2012.¹⁰
- **HCC** is one of the most serious outcomes of cirrhosis and is responsible for 70-90% of cases of primary liver cancer.¹¹
- NAFLD-associated HCC is rapidly increasing.¹²

Hepatitis

Hepatitis is a viral infection defined by inflammation of the liver.

Hepatitis A

*Hepatitis A is caused by the hepatitis A virus and is most commonly spread by eating food contaminated by the stools of an infected person, and can result in mild to severe illness.*¹³

- Globally, there are an estimated **1.4 million** cases of **hepatitis A** every year.¹³
- **Hepatitis A** infection does not cause chronic liver disease and is rarely fatal, but it can cause debilitating symptoms and acute liver failure, which is associated with high mortality.¹³

Hepatitis B

Hepatitis B is transmitted through contact with infected blood, or other bodily fluids, and can result in acute or chronic disease, ranging in severity from a mild condition lasting a few weeks to a serious, lifelong illness.

- An estimated 240 million people worldwide are chronically infected with **hepatitis B**.¹⁴
- In the World Health Organization (WHO) European region, it is estimated that **13.3 million people have chronic hepatitis B**¹⁵ and over 1 million Americans have hepatitis B.³
- **Hepatitis B** results in an estimated **36,000 deaths** every year in Europe.¹⁵

Hepatitis C

Hepatitis C is transmitted through contact with infected blood, or other bodily fluids, and can result in acute or chronic disease, ranging in severity from a mild condition lasting a few weeks to a serious, lifelong illness.

- **Hepatitis C** is found worldwide. The most affected regions are **Central and East Asia and North Africa**.¹⁶
 - Egypt has the highest prevalence of **hepatitis C** in the world;¹⁷ the virus kills an estimated 40,000 people a year, and at least 1 in 10 of the population aged 15 to 59 is infected.¹⁸
- **130-150 million** people globally have chronic **hepatitis C infection** and approximately **350,000 to 500,000** people **die each year from hepatitis C-related liver diseases**.¹⁶
- In the WHO European region, it is estimated that **15 million people have hepatitis C**,¹⁵ responsible for approximately **86,000 deaths** every year in Europe.¹⁶
- Four million Americans have hepatitis C.³
- Together, hepatitis B and C are the **most common causes of liver cirrhosis and cancer** (57% of cases of liver cirrhosis and 78% of cases of primary liver cancer).¹⁵

Hepatitis D

*Hepatitis D is caused by the hepatitis delta virus, and is transmitted through contact with infected blood, or other bodily fluids, in people who are already infected with the hepatitis B virus.*¹⁹

- The distribution of hepatitis D is worldwide but not uniform and current estimates suggest that **15-20 million people have been exposed to the hepatitis delta virus**.²⁰
- Severe **hepatitis D** occurs among indigenous people of Venezuela, Colombia, Brazil and Peru, all regions with high chronic hepatitis delta virus infection rates. It is less common in Eastern Asia but is present in Taiwan, China and India.²¹
- The majority of patients infected with the hepatitis D virus have a **progressive disease** which over time eventually **evolves into cirrhosis**.²⁰

Hepatitis E

*Hepatitis E is caused by the hepatitis E virus and is mainly transmitted via contaminated water.*²²

- Hepatitis E is found worldwide, but the **prevalence is highest in East and South Asia**.²²
- Hepatitis E is usually self-limiting but (like hepatitis A) it **may develop into acute liver failure**.²²
- Every year there are an estimated **20 million hepatitis E infections**, over **three million acute cases of hepatitis E** and **56,600 hepatitis E-related deaths**.²²

Liver transplant

*A liver transplant is a surgical procedure to remove a diseased liver and replace it with a healthy liver from a donor.*²³

- It is estimated that approximately **25,000 liver transplants were conducted globally** in 2013.²⁴
- In 2013, there were an estimated **4,071 liver transplants in the Western Pacific region**.²⁴
- More than **5,500 liver transplants are performed each year in Europe**.²⁵
- Based on data from the European Liver Transplant Registry a total of **118,441 liver transplants** took place across 28 countries between May 1968 and December 2013.²⁵
- In terms of **survival post transplantation**, more than nine people out of 10 are still alive after one year, around eight in every 10 people live at least five years and many people live for up to 20 years or more.²⁶

Alcoholic liver disease (ALD)

*Alcoholic liver disease is damage to the liver and its function due to alcohol abuse.*²⁷

- Alcoholic liver disease is the most **prevalent cause of advanced liver disease** in Europe.²⁸
- ALD is the **commonest cause of cirrhosis** in the Western world and **1 of the 10 most common causes of death**.²⁹

Non-alcoholic fatty liver disease (NAFLD) and non-alcoholic steatohepatitis (NASH)

NAFLD is fatty infiltrations in the liver not caused by alcohol which can then lead to NASH, a more serious stage of the disease where the liver becomes inflamed due to the accumulation of fat.³⁰

- Guidelines published in 2012 by the World Gastroenterology Organisation suggest the prevalence of **NAFLD** had doubled over the last 20 years. **NAFLD** and **NASH** are both closely associated with diabetes and obesity, and together are now considered the number one cause of liver disease in Western countries.³¹
- **NAFLD** affects more than 20% of the population worldwide³²
 - As many as **116 million** people in the EU may suffer from some form of **NAFLD**.²
 - Two large European studies reported **NAFLD prevalence rates of between 42.6% and 69.5%** in samples of adults with type 2 diabetes.¹¹
 - The estimated prevalence of NAFLD in the Middle East is between 20-30%, equal to that in Europe.³¹
 - Up to 25% of Americans may suffer from some form of NAFLD.³
- Between 10% and 30% of patients with **NAFLD** have **NASH** that can progress to cirrhosis.³¹
 - In the USA approximately 6 million people are estimated to have NASH.³¹
 - In Europe, prevalence of NASH is approximately 5%.³³

Autoimmune, cholestatic and drug-induced liver diseases

Liver diseases that affect bile secretion are termed 'cholestatic' and they can be caused by autoimmune damage of the bile ducts, drugs, genetic defects and developmental disorders. Autoimmune liver diseases may also affect the liver cells (autoimmune hepatitis).

- Drug-induced liver disease
 - Drug-induced liver injury is the most common cause of acute liver failure in most Western countries.
 - The incidence and seriousness of drug-induced hepatitis are largely underestimated in the general population.³⁴
- Autoimmune and cholestatic liver diseases
 - These are relatively rare compared with viral hepatitis and fatty liver disease, but are associated with a significant societal and economic burden due to scarcity of effective treatment.²
 - The autoimmune and cholestatic liver diseases account for approximately 10% of the liver transplants performed in Europe during the last 20 years.²
 - The most frequent cholestatic and autoimmune liver diseases are primary biliary cirrhosis, primary sclerosing cholangitis, and autoimmune hepatitis.³⁵
 - Despite recent advances in understanding and treatment, there remain significant areas of unmet clinical need in each of the autoimmune and cholestatic liver diseases.³⁶

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