

## Global Burden of Liver Disease: 2023 Update.

Devarbhavi H, Asrani SK, Arab JP, Nartey YA, Pose E, Kamath PS. J Hepatol. 2023 Aug;79(2):516-537. doi: 10.1016/j.jhep.2023.03.017. Epub 2023 Mar 27. PMID: 36990226.

Liver disease accounts for two million deaths annually and is responsible for 4% of all deaths (1 out of every 25 deaths worldwide); approximately two-thirds of all liver-related deaths occur in men. Within this estimate, liver cancer accounts for 600,000 to 900,000 deaths per year. Currently liver disease is the eleventh-leading cause of death, but liver deaths may be underestimated. Deaths are largely attributable to complications of cirrhosis and hepatocellular carcinoma, with acute hepatitis accounting for a smaller proportion of deaths. Cirrhosis increases mortality risk 5- to 10-fold, mainly because of the development of cirrhosis-related complications (ascites, variceal bleeding, hepatic encephalopathy, kidney dysfunction and infections) and acute-on-chronic liver failure. 75% of all liver cancers occur in Asia, mainly associated with HBV and HCV.

The most common causes of cirrhosis worldwide are related to viral hepatitis, alcohol, and non-alcoholic fatty liver disease (NAFLD). Currently there are two related World Health Organisation (WHO) level efforts geared towards decreasing morbidity attributed to alcohol and unhealthy eating. This includes The Global Action Plan for Healthy Lives and Well-being for All and an initiative to decrease global non-communicable diseases ([www.who.int](http://www.who.int)). Beside these, WHO Viral Hepatitis Elimination Program has been aimed to eliminate viral hepatitis from World until 2030 ([www.who.int](http://www.who.int)).

As a consequence of the dramatic increase in the global incidence of metabolic risk factors and the aging population, it is expected that the burden of advanced disease due to NAFLD will more than double in the period of 2016-2030 in different regions of the world based on studies that used Markov modelling to predict the epidemiology of the disease in the following decades. Notably, metabolic risk factors in children and adolescents constitute one of the biggest threats to global health in the coming decades. A recent study including data from 44 countries and 13 global regions of the WHO reported a prevalence of metabolic syndrome of 2.8% for children and 4.8% for adolescents. These data are especially alarming considering that children with obesity and metabolic risk factors are at higher risk of developing liver disease in the adulthood.

According to current evidence, no level of alcohol consumption can be considered safe and to minimise health consequences consumption should be zero. This is particularly true in patients with cirrhosis due to alcohol related liver disease (ALD) or alcohol-associated hepatitis, in whom alcohol abstinence can decrease mortality, constituting one of the best predictors of survival in these conditions.

### Alarming numbers for the silent killer, namely cirrhosis:

Compensated Cirrhosis → →4-12% per year →→ Decompensated cirrhosis

- \* 112 million patients
- \* 5-fold increase in mortality compared to general population
- \* Survival: 87% for 1 yr and 67% for 5 yr

- \* 11 million patients
- \* 10-fold increase in mortality compared to general population
- \* Survival: 75% for 1 yr and 45% for 5 yr