

3. NON-ALCOHOLIC FATTY LIVER DISEASE (NAFLD)/ METABOLIC-ASSOCIATED FATTY LIVER DISEASE (MAFLD)

Non-alcoholic fatty liver disease (NAFLD) is a common chronic progressive parenchymal liver disease with strong pathophysiological underpinnings to adiposity-based chronic disease or obesity. Although not uniformly adopted in medical literature, and to reflect its metabolic underpinnings, recent efforts have called for a nomenclature change to metabolic (dysfunction)-associated fatty liver disease (MAFLD). However, given that the term NAFLD is what has been used and continues to be used overwhelmingly in the medical literature, NAFLD is the terminology adopted here and elsewhere in these guidelines.

A strong connection can be found between overweight/obesity and nonalcoholic fatty liver disease (186) and nonalcoholic steatohepatitis (NASH). Both of these conditions have a major impact upon the regulation of carbohydrate metabolism, including glycogenolysis, gluconeogenesis, and the release of insulin. Both NAFLD and NASH also can progress to irreversible hepatic cirrhosis(187).

Non-alcoholic fatty liver disease (NAFLD) is defined by the presence of fatty liver (more than 5% steatosis) in the absence of excessive alcohol consumption or other causes of liver disease. In 2020, a group of experts reached consensus revisiting the current definition of fatty liver disease, including updating the nomenclature from NAFLD to Metabolic (dysfunction) Associated Fatty Liver Disease (MAFLD), introducing a simple set of “positive” diagnostic criteria for both adults and children(188, 189). Despite the expert panel achieving consensus on the name change, considerable controversy exists with this new concept, which may in the future undergo further changes. We will, therefore, discuss the prevalence of NAFLD, since most published epidemiological studies refer to NAFLD, rather than MAFLD.

a. Epidemiology

In one meta-analysis of 8,515,431 individuals from 22 countries, global NAFLD prevalence was estimated to be 25.2%, with the highest prevalence rates found in the Middle East and South America and the lowest in Africa(190).

Most important is the observation that the epidemiology and demographic characteristics of NAFLD vary considerably between countries and continents. These differences are due to the variable prevalence of risk factors that are modifiable, such as obesity and type 2 diabetes