What's in a Name? NAFLD Is Now MASLD

Name change emphasizes the role of metabolic dysfunction in fatty liver disease.

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After extensive discussion and debate, liver disease organizations worldwide have adopted a new naming system for fatty liver disease. The change is intended to clarify the underlying causes of the condition and reduce stigma. What's more, experts hope it will help raise awareness as new therapies are on the horizon.

"Stigma has a major impact on liver diseases, leading to discrimination, reduction in health-care-seeking behavior and reduced allocation of resources, which all result in poor clinical outcomes," the American Association for the Study of Liver Diseases (AASLD), the European Association for the Study of the Liver (EASL), the Latin American Association for the Study of the Liver (ALEH) and the Asian Pacific Association for the Study of the Liver (APASL) wrote in a joint editorial.

Non-alcoholic fatty liver disease (NAFLD) is now known as metabolic dysfunction-associated steatotic liver disease (MASLD). The more advanced form of the condition, non-alcoholic steatohepatitis (NASH), will now be called metabolic dysfunction-associated steatohepatitis (MASH). Both fall under the umbrella of steatotic liver disease (SLD), as does the condition formerly known as alcoholic liver disease.

The buildup of fat in the liver, or hepatic steatosis, can lead to inflammation, fibrosis, cirrhosis and liver cancer. Hepatitis refers to liver inflammation, which can have multiple causes, including fat accumulation, viral hepatitis and heavy alcohol use. Steatohepatitis means liver fat accumulation that results in inflammation. This inflammation can trigger the development of scar tissue (fibrosis), which over time can progress to cirrhosis and loss of liver function.

Linked to obesity and type 2 diabetes, fatty liver disease is increasingly recognized as a metabolic disorder. In fact, many experts consider it part of metabolic syndrome, a cluster of conditions—including high blood pressure, elevated blood sugar, abnormal cholesterol and triglyceride levels and excess fat around the waist—that raise the risk for cardiovascular disease and other health problems.

Many people with metabolic problems also drink alcohol, and many heavy drinkers also have metabolic abnormalities, so the distinction between NAFLD and alcohol-related liver disease was

never clear-cut. In addition, associating liver disease with alcohol use can give rise to stigma.

Some people also found the word fatty in the old name to be stigmatizing. Steatosis—which refers to fat buildup in the liver or other organs, not a person's weight or body shape—is not a common term, and it doesn't carry the same baggage.

Liver disease researchers, clinicians and advocates have been discussing the naming system for years, and it has been a perennial topic at the AASLD Liver Meeting and EASL Liver Congress. To develop the new naming system, more than 200 experts from over 50 countries participated in a consensus-building process know as Delphi. While there was wide agreement that the old names were flawed, it was more difficult to come up with replacements.

AASLD "No More NAFLD" presentation slide

In the end, the definition of MASLD was changed to include the presence of at least one of five cardiometabolic risk factors. Cases in which regular alcohol consumption—140 to 350 grams per week for women or 210 to 420 grams per week for men—is also involved will be classified as metabolic and alcohol-associated liver disease (MetALD). The term alcohol-associated or alcohol-related liver disease (ALD) is reserved for people without metabolic abnormalities or for very heavy drinkers (more than 50 grams daily for women or more than 60 grams daily for men). People with no metabolic abnormalities and no other known causes will be classified as having cryptogenic steatotic liver disease. Experts felt the umbrella term "steatotic" is broad enough to include newly discovered conditions. An earlier attempt at a name change, metabolic-associated fatty liver disease (MAFLD), will be retired.

One concern about changing names is that clinical trials that selected participants with diagnosed NALFD, NASH or alcohol-related liver disease could be seen as less relevant if patient populations

are now classified differently. In July, AASLD announced that it will hold discussions with stakeholders, including researchers and the Food and Drug Administration, to address such concerns. Pharmaceutical companies developing drugs for MASLD and MASH will also need to be involved. Coinciding with this year's Liver Meeting, experts published articles on the impact of the new naming system on clinical practice guidelines and implications for AASLD medical journals.

The new names could also make it harder for patients seeking information. For example, a Google search for "MASLD" might not bring up results using older terms. Patient education materials will need to be updated, and some organizations may even have to change their names.

Steatotic liver disease (SLD) is responsible for a growing burden of advanced liver disease worldwide, coinciding with the obesity epidemic among adults and children. Now that hepatitis B can be prevented with vaccines and hepatitis C can be easily cured, SLD is responsible for a rising proportion of liver cancer cases. Up to a third of Americans are thought to have MASLD, but many remain undiagnosed.

Interactions between fat and glucose metabolism, insulin resistance, inflammation and fibrosis are not fully understood, and developing medications for MASLD and MASH has proved challenging. Several treatment approaches are under study, including weight-loss drugs such as semaglutide (Ozempic or Wegovy) and tirzepatide (Mounjaro or Zepbound). But today, with no effective approved medical therapies, management relies on lifestyle changes such as diet, exercise and weight loss.

Major changes in terminology can take a while to get used to. In the meantime, some professional and advocacy organizations, researchers and publications are using both old and new names when relevant—for example, describing a study population as having NAFLD if that is how they were originally classified—or because the previous terms are better understood by patients and the general public. Hep will do the same.

Click here for more news about steatotic liver disease.
