

What is NASH?

Non-alcoholic steatohepatitis (NASH) is a severe form of non-alcoholic fatty liver disease (NAFLD) where the liver becomes inflamed due to the accumulation of **fat**. NASH can progress to include scarring (**fibrosis/cirrhosis**), preventing the liver from functioning properly. Since the disease comes with few or no symptoms, it can go unnoticed for decades.

NASH is a major threat to global health systems and is projected to become the leading cause of liver related morbidity and mortality within 20 years and a leading cause of liver transplantation in the next few years.

NASH Progression

Disease progression of NASH can take years and some patients may not progress at all.

Patients generally feel well in the early stages and only begin to have symptoms such as fatigue, weight loss, and weakness once the disease is more advanced or cirrhosis develops.

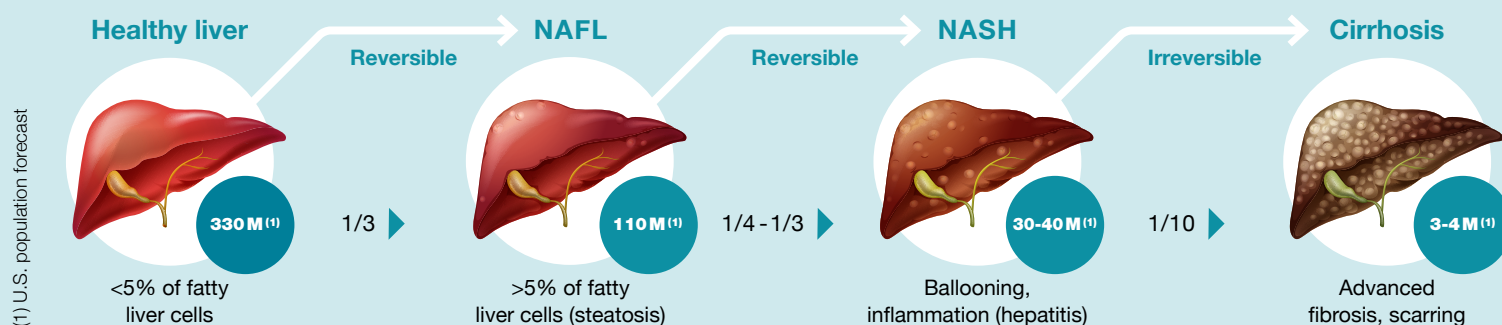
Therefore, intervention at an early stage to prevent fibrosis and scarring is clinically challenging.

Beyond fibrosis and cirrhosis, NASH may also progress to hepatocellular carcinoma and liver failure.

Risk Factors

Exact cause of NASH is not known, but can be linked to:

- Obesity
- Type 2 Diabetes
- Age
- High blood pressure
- High cholesterol / lipid levels
- Menopause
- Sleep apnea



Diagnosing NASH

NASH is a **silent disease** – it is difficult to diagnose until it has developed significantly.

Imaging techniques (e.g., ultrasound, magnetic resonance) are often used but cannot differentiate fatty liver from NASH, nor predict the degree of liver fibrosis.

Liver biopsy is considered the gold standard to diagnose NASH but is expensive and invasive, limiting its use in clinical practice.

Treating NASH

When the disease is not too far advanced, the only way to reverse NASH and the excess fat in the liver is with **lifestyle changes**, including:

- Weight loss (if obese or overweight)
- Balanced diet
- Increased physical activity

Despite huge efforts by many pharmaceutical companies, there are still **no approved drug therapies**.

NASH drug development is **challenging** and reemphasizes the need for patient-friendly solutions for advanced liver disease and its complications, including treatment options for **NASH-related ascites**, a key complication of liver cirrhosis.

The U.S. market for Sequana Medical's **alfapump** to treat ascites resulting from **NASH-related cirrhosis** is forecast to exceed €3 billion annually within the next 10-20 years.

For more information, visit www.sequanamedical.com

Regulatory disclaimer: The **alfapump** system is not currently approved in the United States or Canada. In the United States and Canada, the **alfapump** system is currently under clinical investigation (POSEIDON Study) and is being studied in adult patients with refractory or recurrent ascites due to cirrhosis. For more information regarding the POSEIDON clinical study see www.poseidonstudy.com.

References: liverfoundation.org; niddk.nih.gov; Bertot (2016); Estes (2018); Global Data Forecast 2026; Madrazo (2017); Le (2017); Dyson (2014)