

# What is NASH?



NASH is the most severe form of non-alcoholic fatty liver disease (NAFLD), and it can lead to end-stage liver disease and death if not managed properly

## NAFLD encompasses:<sup>1</sup>

1. **Non-alcoholic fatty liver (NAFL)** – build up of fat in the liver (steatosis).
2. **Non-alcoholic steatohepatitis (NASH)** – in addition to fat in the liver, there is also inflammation of the liver tissue leading to liver damage and cell death. NASH is the most severe form of NAFLD.



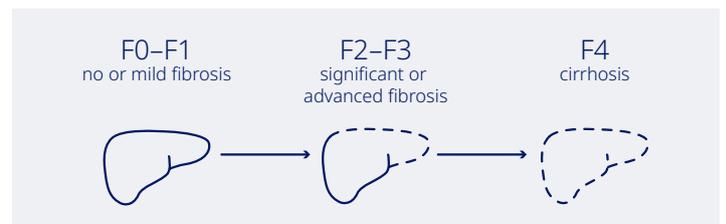
## NASH is more common in people living with obesity

**82%** of people with NASH are living with obesity<sup>3</sup>

and conditions related to obesity, such as type 2 diabetes

**44%** of people with NASH are living with type 2 diabetes.<sup>6</sup>

NASH severity is often assessed using a scale that ranges from F0 to F4:<sup>4,5</sup>



- **Fibrosis** – scarring of the liver
- **Cirrhosis** – severe scarring of the liver that can lead to loss of liver function, liver failure and liver cancer

## NASH can have serious consequences

- Cardiovascular disease is the most common cause of death in people living with NAFLD<sup>7,8</sup>
- People living with NASH may progress and develop end-stage liver disease and/or liver cancer,<sup>9</sup> where a liver transplant may be the only treatment option<sup>2</sup>

## The burden of NASH

- Lower overall health-related quality of life<sup>10</sup>
- Impact on mental health and wellbeing,<sup>11</sup> including tiredness, low energy and limitations in social and work activities
- NASH is predicted to be the leading cause of liver transplantation by 2030<sup>7</sup>
- In the US, NASH-related direct medical costs estimated to be \$104 billion (€89) billion per year<sup>12</sup>



# Challenges in diagnosing NASH

## NASH is known as a 'silent disease'

- Few or no symptoms seen in its initial stage, leading to lower patient diagnosis and referral
- When symptoms do occur, they are often non-specific for example abdominal pain, fatigue or weakness<sup>13,14</sup>



## Use of liver biopsy

- An invasive liver biopsy is still considered the gold standard, which is expensive and not without risk
- Diagnosis of NASH is defined by histological features (joint presence of steatosis, ballooning and inflammation)



Because of these challenges, people with NASH are often unaware they have the condition until the disease is in its later stages, at which point liver damage may be irreversible.<sup>15,16</sup>

## Limited treatment options

**No globally approved treatment that addresses the underlying cause of the disease.**<sup>17,18</sup>



**Weight loss sustained at around 7–10%<sup>19</sup> can sometimes pause the progression of NASH.**<sup>20</sup>

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