



## Liver Cirrhosis and Fatty Liver

Non-alcoholic Fatty Liver Disease (NAFLD)

Non-alcoholic Steatohepatitis (NASH)

### Symptoms:

- Fatigue
- Abdominal discomfort (especially in the upper right side)
- Weight loss (in advanced stages)
- Jaundice (yellowing of the skin/eyes, in severe cases)
- Jaundice (yellowing of the skin and eyes)
- Abdominal swelling (ascites)
- Easy bruising or bleeding
- Itchy skin (pruritus)
- Loss of appetite and weight loss
- Confusion or difficulty thinking clearly (hepatic encephalopathy)
- Swollen legs (edema)

### Risk Factors:

- Obesity
- Type 2 diabetes
- High cholesterol or hypertension
- Metabolic syndrome
- Poor diet (high-fat, high-sugar)
- Chronic alcohol abuse
- Chronic viral hepatitis (Hepatitis B, C)
- Non-alcoholic fatty liver disease (NAFLD)
- Autoimmune diseases
- Genetic disorders (e.g., Wilson's disease, hemochromatosis)

### Diagnosis and Investigation:

- Blood tests
- Ultrasound
- MRI or CT scan



- Liver biopsy: Used in some cases to confirm NASH and assess liver damage.
- Fibro Scan

## Management of Fatty Liver Disease

- Lifestyle modification:
  - Diet: Low-calorie, balanced diet rich in fruits, vegetables, whole grains, and healthy fats (e.g., omega-3 fatty acids).
  - Exercise: Regular aerobic exercise to promote weight loss and improve liver function.
  - Weight loss: 5-10% of body weight can significantly improve liver function.
- Medications:
  - Vitamin E: May be recommended for NASH in certain cases (though its benefit is still under investigation).
  - Insulin sensitizers (e.g., metformin, pioglitazone): These may help in patients with insulin resistance, though evidence is limited.
- Control risk factors:
- Lifestyle changes: As with NAFLD, focus on diet, exercise, and weight loss.
- Pharmacotherapy:

## Management of Cirrhosis

- Lifestyle Changes
  - Avoid alcohol
  - Weight management
- Dietary modifications
- Medications
- Procedures
- Endoscopy
- Liver transplantation