



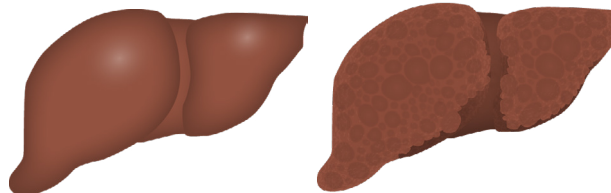
LIVER CIRRHOSIS



Cirrhosis is an end-stage liver disease that develops after healthy liver tissue is destroyed and replaced with scar tissue (fibrosis). Scar tissue blocks blood flow through the liver (portal hypertension). The liver becomes shrunken, hard, and low-functioning.

Causes:

excessive alcohol, hepatitis B or C, obesity, non-alcoholic fatty liver disease, autoimmune disease, iron or copper overload



Normal liver

Liver with cirrhosis

1 Neurologic

- Hepatic encephalopathy
- Peripheral neuropathy
- Asterix (flapping)
- Coma

2 Gastrointestinal

- Anorexia
- Dyspepsia
- Nausea, vomiting
- Change in bowel habits
- Dull abdominal pain
- Fetor hepaticus
- Esophageal & gastric varices
- Melena
- Gastritis
- Hematemesis
- Rectal varices

3 Reproductive

- Gynecomastia
- Testicular atrophy
- Impotence
- Amenorrhea

4 Integumentary

- Jaundice
- Spider angioma
- Palmar erythema
- Purpura
- Petechiae
- Caput medusae

5 Hematologic

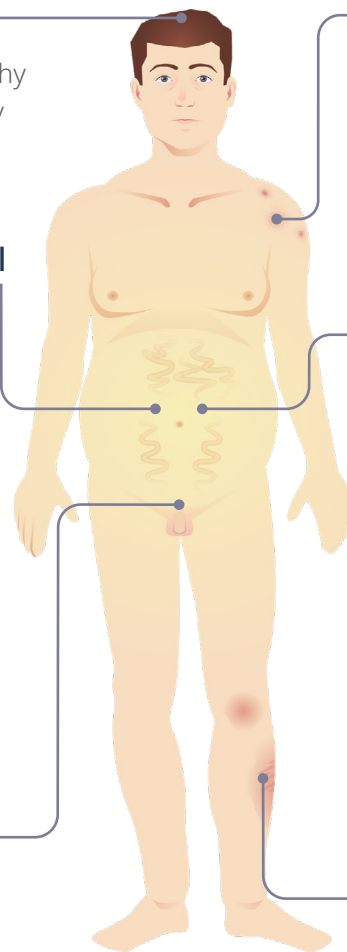
- Anemia
- Thrombocytopenia
- Leukopenia
- Coagulation disorders (increased bleeding or clotting)
- Splenomegaly

6 Metabolic

- Hypokalemia
- Hyponatremia
- Hypoalbuminemia

7 Cardiovascular

- Fluid retention
- Peripheral edema
- Ascites



Diagnosis

- Labs: liver, kidney, coagulation
- CT, MRI, ultrasound
- Endoscopy
- Liver biopsy

Interventions (there is no cure)

- Paracentesis: ascites
- Liver transplant

Common medications

- Diuretics: edema & ascites
- Albumin: ascites & osmotic pressure
- Lactulose: encephalopathy
- Antihypertensives
- Antivirals: hepatitis B or C
- Antibiotics: bacterial peritonitis

Monitor

- Mental status
- Bleeding
- I&O, weight
- Edema, abdominal girth
- Labs: CBC, BMP, ALT/AST, BUN/creatinine, albumin, PT/INR, bilirubin

Patient education

- Avoid alcohol and smoking.
- Observe stools and emesis for blood.
- Avoid hepatotoxic medications.
- Elevate legs to mobilize edema/ascites.
- Consume adequate, well-balanced, sodium restricted diet.
- Schedule periods of rest.
- Maintain healthy weight.
- Mild exercise