Liver cirrhosis

Lab 6

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Introduction:

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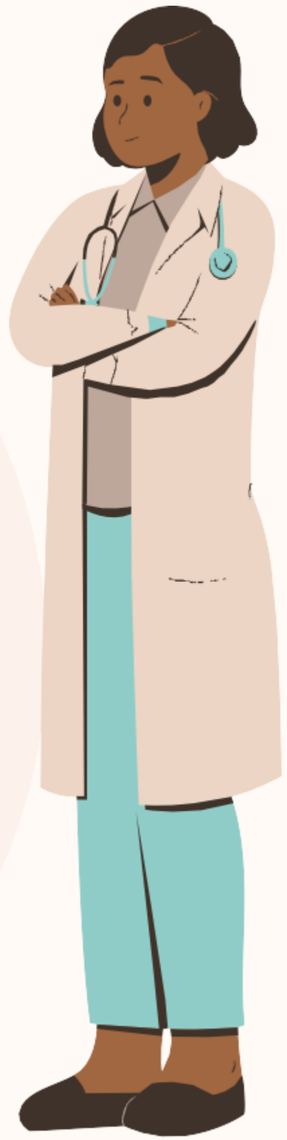
Liver cirrhosis is a chronic and progressive disease characterized by the replacement of healthy liver tissue with fibrous scar tissue. This process gradually impairs liver function, affecting detoxification, protein synthesis, and fat metabolism. As the disease progresses, it can lead to liver failure and serious complications.



Symptoms:

In the early stages, cirrhosis may not show symptoms. However, as it progresses, the following signs may appear:

_Persistent fatigue and weakness.

_Jaundice (yellowing of the skin and eyes) due to bilirubin buildup.

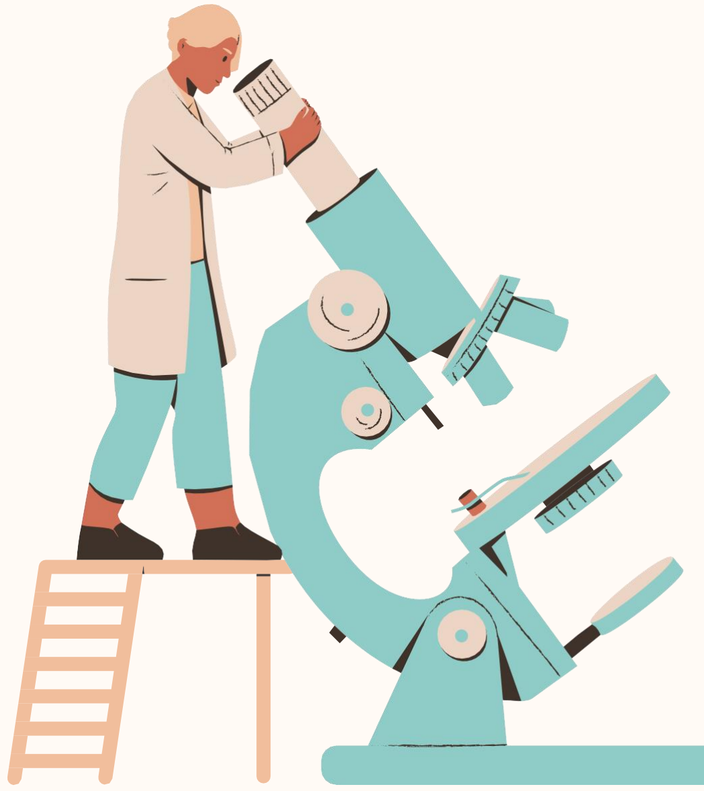
_Abdominal swelling (ascites) caused by fluid retention.

_Easy bruising and bleeding due to reduced clotting proteins.

_Severe itching due to bile salt accumulation.

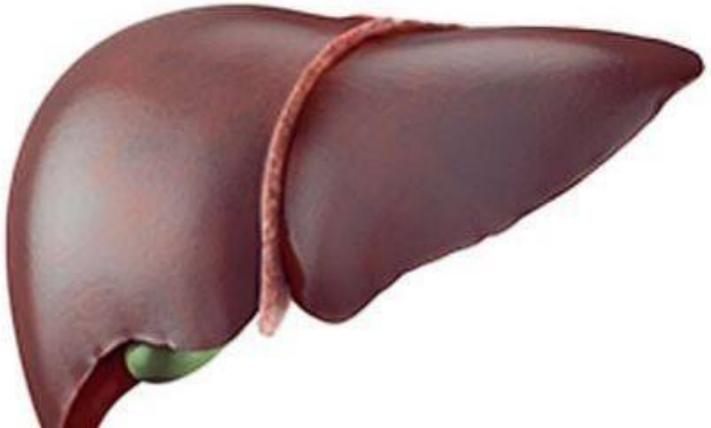
_Mental changes (hepatic encephalopathy), such as confusion and memory loss.

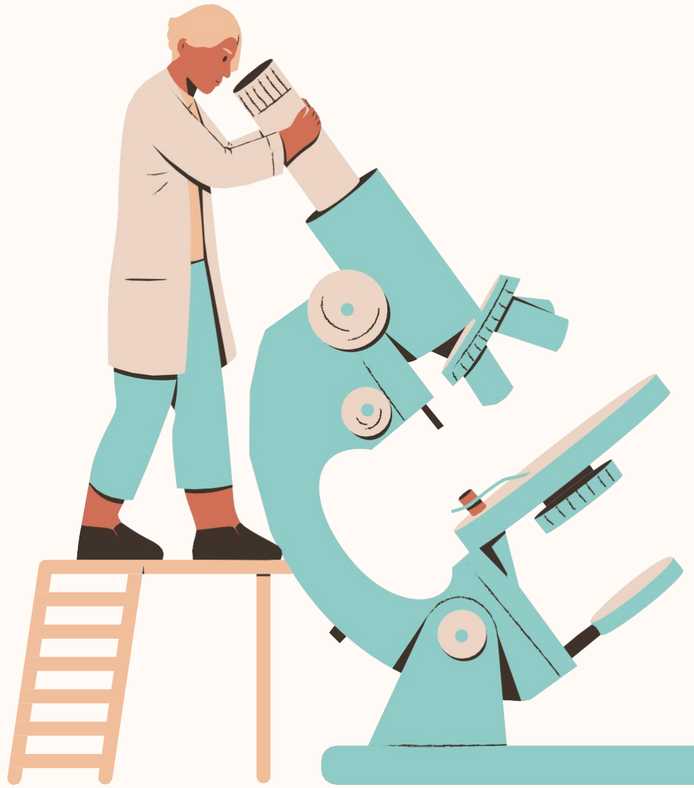
_Loss of appetite and weight loss.



Cirrhosis

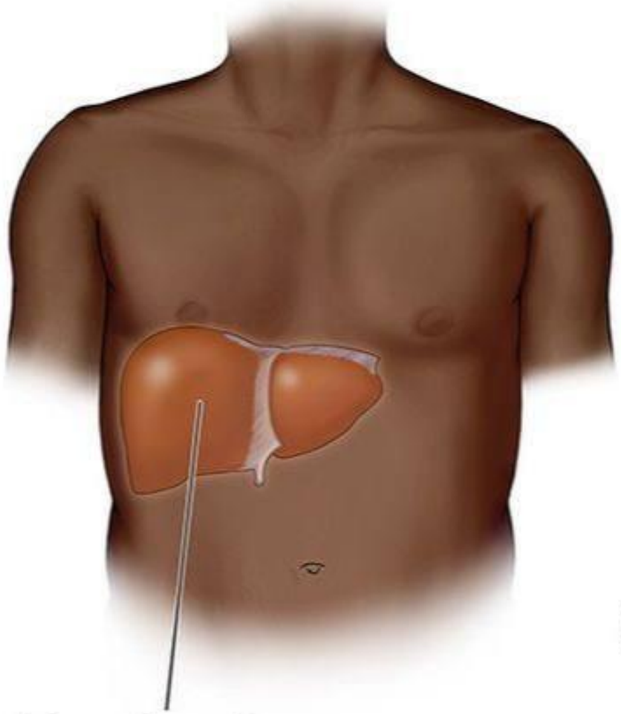
Healthy liver



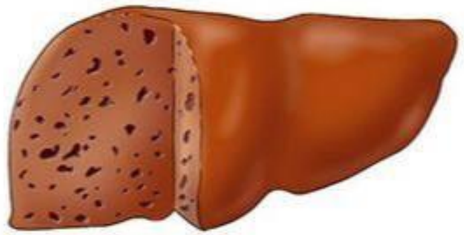


Cirrhosis of the liver

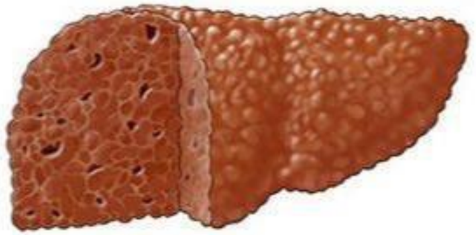
Late stage liver disease



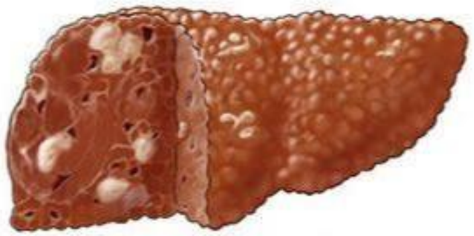
Liver location



Healthy liver



Compensated cirrhosis
(stage three liver disease)

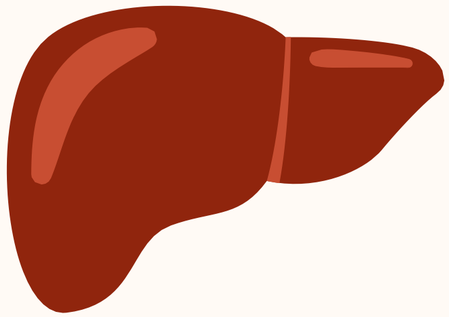


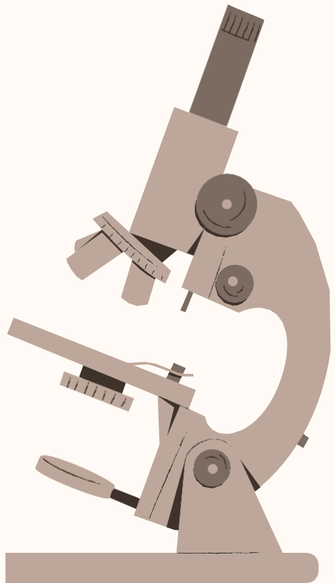
Decompensated cirrhosis
(stage four liver disease)

Causes and Risk Factors:

Liver cirrhosis develops due to chronic liver damage caused by various factors, including:

1•Chronic viral hepatitis (Hepatitis B and C), which leads to ongoing liver inflammation.
2•Alcohol abuse, a major cause of cirrhosis, especially in Western countries.
3•Non-alcoholic fatty liver disease (NAFLD), associated with obesity and diabetes.
4•Autoimmune liver diseases, such as autoimmune hepatitis.
5•Genetic disorders, including hemochromatosis, which leads to e\cess iron accumulation.
6•Bile duct obstruction, which results in bile buildup and liver damage.
7•E\posure to to\ins and certain medications, such as chemotherapy drugs.

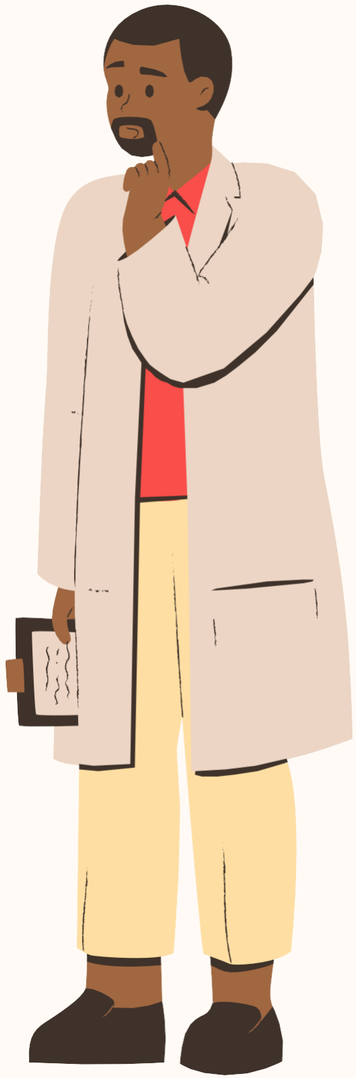


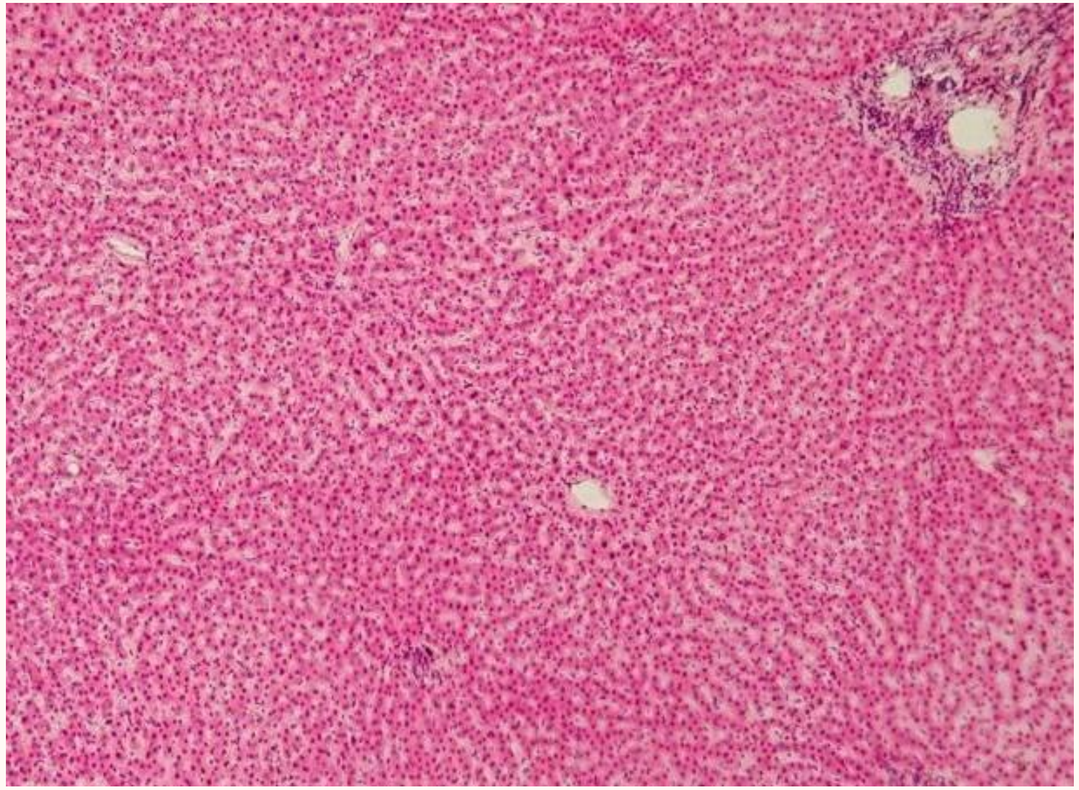


Diagnosis

To diagnose liver cirrhosis, several tests are performed, including:

1. **Liver function tests (ALT, AST, ALP, GGT, bilirubin) to assess liver health.**
2. **Albumin and clotting factor tests to evaluate protein production.**
3. **Imaging tests (ultrasound, CT scan, MRI) to detect structural liver changes.**
4. **Liver biopsy, which provides detailed information about tissue damage.**
5. **FibroScan, a non-invasive test that measures liver stiffness.**





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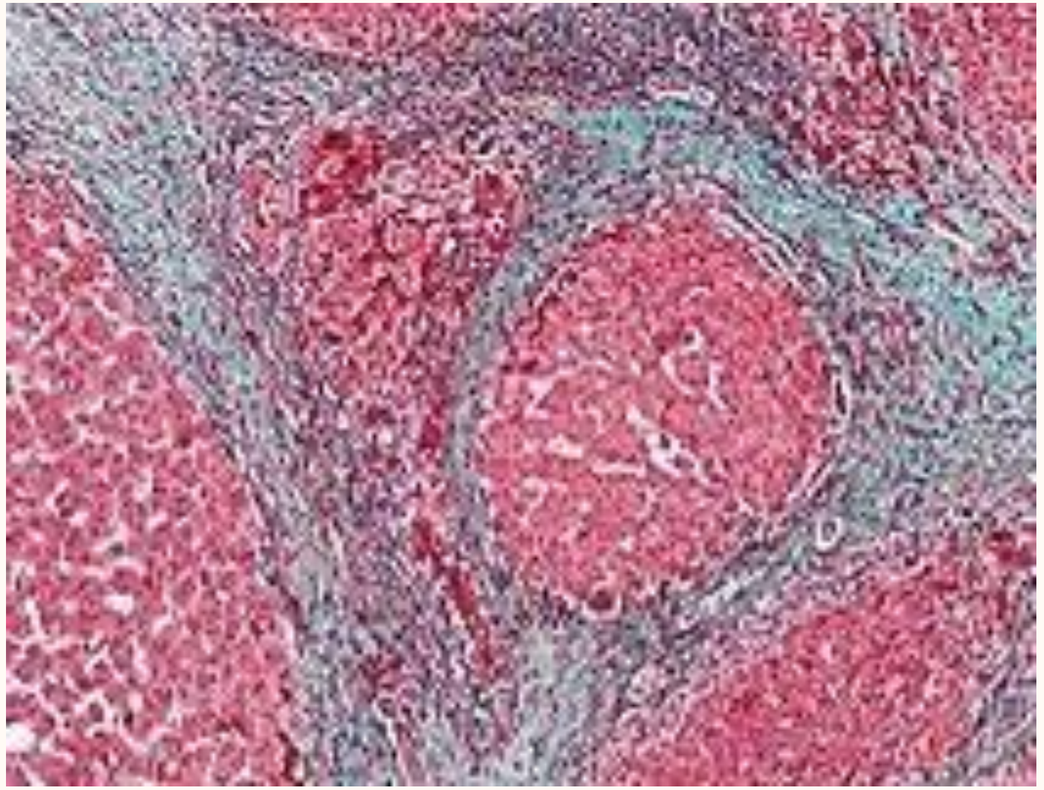

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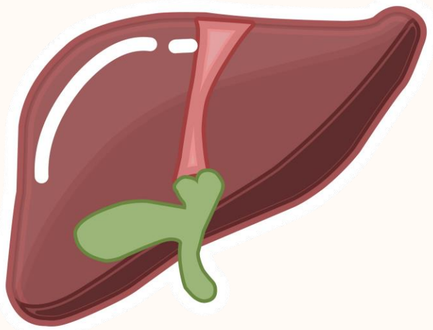


Complications:

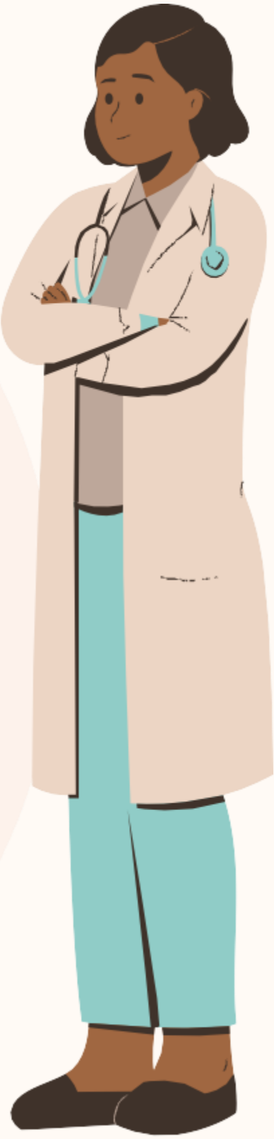
If left untreated, cirrhosis can lead to severe complications, including:

1•Liver failure, where the liver loses its ability to function.

2•Liver cancer, due to continuous liver cell damage.

3•Esophageal varices, which may rupture and cause life-threatening bleeding.

4•Hepatic encephalopathy, leading to confusion, coma, or even death.



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