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## Liver Diseases

Also called: Hepatic disease

Your liver is the largest organ inside your body. It helps your body digest food, store energy, and remove poisons.

There are many kinds of liver diseases:

- Diseases caused by viruses, such as hepatitis A [<https://medlineplus.gov/hepatitis-a.html>] , hepatitis B [<https://medlineplus.gov/hepatitis-b.html>] , and hepatitis C [<https://medlineplus.gov/hepatitis-c.html>] .
- Diseases caused by drugs, poisons, or too much alcohol. Examples include fatty liver disease [<https://medlineplus.gov/fatty-liver-disease.html>] and cirrhosis [<https://medlineplus.gov/cirrhosis.html>] .
- Liver cancer [<https://medlineplus.gov/liver-cancer.html>]
- Inherited diseases, such as hemochromatosis [<https://medlineplus.gov/hemochromatosis.html>] and Wilson disease [<https://medlineplus.gov/wilson-disease.html>]

Symptoms of liver disease can vary, but they often include swelling of the abdomen and legs, bruising easily, changes in the color of your stool and urine, and jaundice [<https://medlineplus.gov/jaundice.html>] , or yellowing of the skin and eyes. Sometimes there are no symptoms. Tests such as imaging tests and liver function tests can check for liver damage and help to diagnose liver diseases.

## Start Here

- Liver Disease [<https://www.mayoclinic.org/diseases-conditions/liver-problems/symptoms-causes/syc-20374502?p=1>] (Mayo Foundation for Medical Education and Research)  
Also in Spanish [<https://www.mayoclinic.org/es/diseases-conditions/liver-problems/symptoms-causes/syc-20374502?p=1>]
- Progression of Liver Disease to Liver Cancer [<https://liverfoundation.org/resource-center/videos/the-progression-of-liver-disease-to-liver-cancer/>] (American Liver Foundation)

## Diagnosis and Tests

- Abdominal and Pelvic CT (Computed Tomography) [<https://www.radiologyinfo.org/en/info/abdominct>]   
(American College of Radiology; Radiological Society of North America)  
Also in Spanish [<https://www.radiologyinfo.org/es/info/abdominct>]
- Abdominal Ultrasound [<https://www.radiologyinfo.org/en/info/abdominus>]   
(American College of Radiology; Radiological Society of North America)  
Also in Spanish [<https://www.radiologyinfo.org/es/info/abdominus>]
- Body MRI [<https://www.radiologyinfo.org/en/info/bodymr>]   
(American College of Radiology; Radiological Society of North America)  
Also in Spanish [<https://www.radiologyinfo.org/es/info/bodymr>]
- Chloride Blood Test [<https://medlineplus.gov/lab-tests/chloride-blood-test/>]   
(National Library of Medicine)  
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/prueba-de-cloruro-en-sangre/>]
- Elastography [<https://medlineplus.gov/lab-tests/elastography/>]   
(National Library of Medicine)  
Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/elastografia/>]

• Endoscopic Retrograde Cholangiopancreatography (ERCP) [<https://www.niddk.nih.gov/health-information/diagnostic-tests/endoscopic-retrograde-cholangiopancreatography>]  (National Institute of Diabetes and Digestive and Kidney Diseases)  
Also in Spanish [<https://www.niddk.nih.gov/health-information/informacion-de-la-salud/pruebas-diagnosticas/colangiopancreatografia-retrograda-endoscopica>]

• Gamma-glutamyl Transferase (GGT) Test [<https://medlineplus.gov/lab-tests/gamma-glutamyl-transferase-ggt-test/>]  (National Library of Medicine)

Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/prueba-de-gamma-glutamil-transferasa-ggt/>]

• Lactate Dehydrogenase (LDH) Isoenzymes Test [<https://medlineplus.gov/lab-tests/lactate-dehydrogenase-ldh-isoenzymes-test/>]  (National Library of Medicine)

Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/examen-de-isoenzimas-de-la-lactato-deshidrogenasa-ldh/>]

• Lactate Dehydrogenase (LDH) Test [<https://medlineplus.gov/lab-tests/lactate-dehydrogenase-ldh-test/>]  (National Library of Medicine)

Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/prueba-de-lactato-deshidrogenasa-ldh/>]

• Liver Biopsy [<https://www.niddk.nih.gov/health-information/diagnostic-tests/liver-biopsy>]

 (National Institute of Diabetes and Digestive and Kidney Diseases)

Also in Spanish [<https://www.niddk.nih.gov/health-information/informacion-de-la-salud/pruebas-diagnosticas/biopsia-higado>]

• Liver Function Tests [<https://medlineplus.gov/lab-tests/liver-function-tests/>]  (National Library of Medicine)

Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/pruebas-funcionales-hepaticas/>]

• MRCP (MR Cholangiopancreatography) [<https://www.radiologyinfo.org/en/info/mrcp>]

 (American College of Radiology; Radiological Society of North America)

Also in Spanish [<https://www.radiologyinfo.org/es/info/mrcp>]

• Needle Biopsy [<https://www.mayoclinic.org/tests-procedures/needle-biopsy/about/pac-20394749?p=1>]

(Mayo Foundation for Medical Education and Research)

Also in Spanish [<https://www.mayoclinic.org/es/tests-procedures/needle-biopsy/about/pac-20394749?p=1>]

• Total Protein and Albumin/Globulin (A/G) Ratio [<https://medlineplus.gov/lab-tests/total-protein-and-albumin-globulin-a-g-ratio/>]  (National Library of Medicine)

Also in Spanish [<https://medlineplus.gov/spanish/pruebas-de-laboratorio/proteinas-totales-y-relacion-albumina-globulina-a-g/>]

## Prevention and Risk Factors

• 25 Ways to Love Your Liver Health [<https://liverfoundation.org/resource-center/blog/25-ways-to-love-your-liver-health/>] (American Liver Foundation)

• Fighting Fatty Liver: Steps Against a Silent Disease [<https://newsinhealth.nih.gov/2021/10/fighting-fatty-liver>] 

(National Institutes of Health)

Also in Spanish [<https://salud.nih.gov/recursos-de-salud/nih-noticias-de-salud/luchar-contra-el-higado-graso>]

## Treatments and Therapies

• Dandelion [<https://www.nccih.nih.gov/health/dandelion>]  (National Center for Complementary and Integrative Health)

• Liver Transplantation: MedlinePlus Health Topic [<https://medlineplus.gov/livertransplantation.html>] 

(National Library of Medicine)

Also in Spanish [<https://medlineplus.gov/spanish/livertransplantation.html>]

• Milk Thistle [<https://www.nccih.nih.gov/health/milk-thistle>]  (National Center for Complementary and Integrative Health)

• Transjugular Intrahepatic Portosystemic Shunt (TIPS) [<https://www.radiologyinfo.org/en/info/tips>] 

(American College of Radiology; Radiological Society of North America)

Also in Spanish [<https://www.radiologyinfo.org/es/info/tips>]

## Related Issues

• Cirrhosis and Portal Hypertension [<https://familydoctor.org/condition/cirrhosis-and-portal-hypertension/?adfree=true>] (American Academy of Family Physicians)

Also in Spanish [<https://es.familydoctor.org/condicion/cirrosis-e-hipertension-portal-es/?adfree=true>]

- Hepatic Encephalopathy [<https://liverfoundation.org/liver-diseases/complications-of-liver-disease/hepatic-encephalopathy/>]  (American Liver Foundation)  
Also in Spanish [<https://liverfoundation.org/es/enfermedades-del-HIGADO/complicaciones-de-la-enfermedad-hep%C3%A1tica/encefalopat%C3%ADa-hep%C3%A1tica/>]

## Specifics

- Acute Liver Failure [<https://www.mayoclinic.org/diseases-conditions/acute-liver-failure/symptoms-causes/syc-20352863?p=1>] (Mayo Foundation for Medical Education and Research)  
Also in Spanish [<https://www.mayoclinic.org/es/diseases-conditions/acute-liver-failure/symptoms-causes/syc-20352863?p=1>]
- Alagille Syndrome [<https://www.niddk.nih.gov/health-information/liver-disease/alagille-syndrome>]  (National Institute of Diabetes and Digestive and Kidney Diseases)
- Benign Liver Tumors [<https://liverfoundation.org/liver-diseases/complications-of-liver-disease/benign-liver-tumors/>] (American Liver Foundation)  
Also in Spanish [<https://liverfoundation.org/es/enfermedades-del-HIGADO/complicaciones-de-la-enfermedad-hep%C3%A1tica/tumores-hep%C3%A1ticos-benignos/>]
- Enlarged Liver [<https://www.mayoclinic.org/diseases-conditions/enlarged-liver/symptoms-causes/syc-20372167?p=1>] (Mayo Foundation for Medical Education and Research)
- Gilbert Syndrome [<https://www.mayoclinic.org/diseases-conditions/gilberts-syndrome/symptoms-causes/syc-20372811?p=1>] (Mayo Foundation for Medical Education and Research)  
Also in Spanish [<https://www.mayoclinic.org/es/diseases-conditions/gilberts-syndrome/symptoms-causes/syc-20372811?p=1>]
- Liver Cysts: A Cause of Stomach Pain? [<https://www.mayoclinic.org/diseases-conditions/liver-problems/expert-answers/liver-cysts/faq-20058440?p=1>] (Mayo Foundation for Medical Education and Research)  
Also in Spanish [<https://www.mayoclinic.org/es/diseases-conditions/liver-problems/expert-answers/liver-cysts/faq-20058440?p=1>]
- Liver Hemangioma [<https://www.mayoclinic.org/diseases-conditions/liver-hemangioma/symptoms-causes/syc-20354234?p=1>] (Mayo Foundation for Medical Education and Research)
- Portal Hypertension [<https://www.merckmanuals.com/home/liver-and-gallbladder-disorders/manifestations-of-liver-disease/portal-hypertension>] (Merck & Co., Inc.)  
Also in Spanish [<https://www.merckmanuals.com/es-us/hogar/trastornos-del-h%C3%ADgado-y-de-la-ves%C3%ACcula-biliar/manifestaciones-cl%C3%ADnicas-de-las-enfermedades-hep%C3%A1ticas/hipertensi%C3%B3n-portal>]
- Primary Sclerosing Cholangitis [<https://www.niddk.nih.gov/health-information/liver-disease/primary-sclerosing-cholangitis>]  (National Institute of Diabetes and Digestive and Kidney Diseases)  
Also in Spanish [<https://www.niddk.nih.gov/health-information/informacion-de-la-salud/enfermedades-higado/colangitis-esclerosante-primaria>]
- Primary Sclerosing Cholangitis (PSC) [<https://liverfoundation.org/liver-diseases/autoimmune-liver-diseases/primary-sclerosing-cholangitis-psc/>] (American Liver Foundation)  
Also in Spanish [<https://liverfoundation.org/es/liver-diseases/autoimmune-liver-diseases/primary-biliary-cholangitis-pbc/>]
- Recognizing Jaundice: Signs That Your Liver Isn't Delivering [<https://newsinhealth.nih.gov/2022/10/recognizing-jaundice>]  (National Institutes of Health)  
Also in Spanish [<https://salud.nih.gov/recursos-de-salud/nih-noticias-de-salud/como-reconocer-la-ictericia>]

## Genetics

- Alagille syndrome: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/alagille-syndrome>]  (National Library of Medicine)
- Alpers-Huttenlocher syndrome: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/alpers-huttenlocher-syndrome>]  (National Library of Medicine)
- Benign recurrent intrahepatic cholestasis: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/benign-recurrent-intrahepatic-cholestasis>]  (National Library of Medicine)
- Childhood myocerebrohepatopathy spectrum: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/childhood-myocerebrohepatopathy-spectrum>]  (National Library of Medicine)
- Congenital bile acid synthesis defect type 2: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/congenital-bile-acid-synthesis-defect-type-2>]  (National Library of Medicine)

- Congenital generalized lipodystrophy: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/congenital-generalized-lipodystrophy>]  (National Library of Medicine)
- Congenital hepatic fibrosis: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/congenital-hepatic-fibrosis>]  (National Library of Medicine)
- Crigler-Najjar syndrome: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/crigler-najjar-syndrome>]  (National Library of Medicine)
- Gilbert syndrome: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/gilbert-syndrome>]  (National Library of Medicine)
- Glycogen storage disease type III: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/glycogen-storage-disease-type-iii>]  (National Library of Medicine)
- Glycogen storage disease type VI: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/glycogen-storage-disease-type-vi>]  (National Library of Medicine)
- Hepatic veno-occlusive disease with immunodeficiency: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/hepatic-veno-occlusive-disease-with-immunodeficiency>]  (National Library of Medicine)
- Intrahepatic cholestasis of pregnancy: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/intrahepatic-cholestasis-of-pregnancy>]  (National Library of Medicine)
- MPV17-related hepatocerebral mitochondrial DNA depletion syndrome: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/mpv17-related-hepatocerebral-mitochondrial-dna-depletion-syndrome>]  (National Library of Medicine)
- Progressive familial intrahepatic cholestasis: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/progressive-familial-intrahepatic-cholestasis>]  (National Library of Medicine)
- Rotor syndrome: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/rotor-syndrome>]  (National Library of Medicine)
- Tyrosinemia: MedlinePlus Genetics [<https://medlineplus.gov/genetics/condition/tyrosinemia>]  (National Library of Medicine)

## Statistics and Research

- FastStats: Chronic Liver Disease and Cirrhosis [<https://www.cdc.gov/nchs/fastats/liver-disease.htm>] (National Center for Health Statistics)
- LiverTox: Clinical and Research Information on Drug-Induced Liver Injury [<https://www.ncbi.nlm.nih.gov/books/NBK547852/>]  (National Institute of Diabetes and Digestive and Kidney Diseases; National Library of Medicine)

## Clinical Trials

- ClinicalTrials.gov: Alagille Syndrome [<https://clinicaltrials.gov/search?cond=%22Alagille+Syndrome%22&aggFilters=status:not%20rec>]  (National Institutes of Health)
- ClinicalTrials.gov: Liver Diseases [<https://clinicaltrials.gov/search?cond=%22Liver+Diseases%22&aggFilters=status:not%20rec>]  (National Institutes of Health)

## Journal Articles

References and abstracts from MEDLINE/PubMed (National Library of Medicine)

- Article: Fecal microbiota transplantation: A promising treatment strategy for chronic liver disease. [<https://www.ncbi.nlm.nih.gov/pubmed/40741477>]
- Article: Gut microbiome-specific nanoparticle-based therapeutics for liver diseases. [<https://www.ncbi.nlm.nih.gov/pubmed/40741099>]
- Article: Key Aspects in the Nutritional Management of Polycystic Liver Disease Patients. [<https://www.ncbi.nlm.nih.gov/pubmed/40733005>]

• Liver Diseases -- see more articles [<https://pubmed.ncbi.nlm.nih.gov/?term=%22Liver+Diseases%22%5Bmajr%3Anoexp%5D+AND+humans%5Bmh%5D+AND+english%5Bla%5D+AND+%22last+2+Years%22+%5Bdat%5D+NOT+%28letter%5Bpt%5D+OR+case+reports%5Bpt%5D+OR+editorial%5Bpt%5D+OR+comment%5Bpt%5D%29+AND+free+full+text%5Bsb%5D+>]

## Find an Expert

- American Liver Foundation [<https://liverfoundation.org/>]
- National Institute of Diabetes and Digestive and Kidney Diseases [<https://www.niddk.nih.gov>] 

## Children

- Alagille Syndrome [<https://liverfoundation.org/liver-diseases/pediatric-liver-information-center/pediatric-liver-disease/alagille-syndrome/>] (American Liver Foundation)  
Also in Spanish [<https://liverfoundation.org/es/liver-diseases/pediatric-liver-information-center/pediatric-liver-disease/alagille-syndrome/>]
- Biliary Atresia [<https://kidshealth.org/en/parents/biliary-atresia.html>] (Nemours Foundation)  
Also in Spanish [<https://kidshealth.org/es/parents/biliary-atresia.html>]
- Biliary Atresia [<https://www.niddk.nih.gov/health-information/liver-disease/biliary-atresia>]  (National Institute of Diabetes and Digestive and Kidney Diseases)
- Galactosemia [<https://liverfoundation.org/liver-diseases/pediatric-liver-information-center/pediatric-liver-disease/galactosemia/>] (American Liver Foundation)  
Also in Spanish [<https://liverfoundation.org/es/liver-diseases/pediatric-liver-information-center/pediatric-liver-disease/galactosemia/>]
- Glycogen Storage Disease Type 1 (von Gierke) [<https://liverfoundation.org/liver-diseases/pediatric-liver-information-center/pediatric-liver-disease/glycogen-storage-disease-type-1-von-gierke/>] (American Liver Foundation)  
Also in Spanish [<https://liverfoundation.org/es/enfermedades-del-HIGADO/centro-de-informaci%C3%B3n-hep%C3%A1tica-pedi%C3%A1trica/enfermedad-hep%C3%A1trica-pedi%C3%A1trica/enfermedad-por-almacenamiento-de-gluc%C3%B3geno-tipo-1-de-von-gierke/>]

## Patient Handouts

- ALP isoenzyme test [<https://medlineplus.gov/ency/article/003497.htm>] (Medical Encyclopedia)  
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003497.htm>]
- Ascites [<https://medlineplus.gov/ency/article/000286.htm>] (Medical Encyclopedia)  
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/000286.htm>]
- Diet - liver disease [<https://medlineplus.gov/ency/article/002441.htm>] (Medical Encyclopedia)  
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/002441.htm>]
- Enlarged liver [<https://medlineplus.gov/ency/article/003275.htm>] (Medical Encyclopedia)  
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003275.htm>]
- Liver disease [<https://medlineplus.gov/ency/article/000205.htm>] (Medical Encyclopedia)  
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/000205.htm>]
- Liver scan [<https://medlineplus.gov/ency/article/003825.htm>] (Medical Encyclopedia)  
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/003825.htm>]
- Loss of brain function - liver disease [<https://medlineplus.gov/ency/article/000302.htm>] (Medical Encyclopedia)  
Also in Spanish [<https://medlineplus.gov/spanish/ency/article/000302.htm>]



## MEDICAL ENCYCLOPEDIA

5'-nucleotidase [<https://medlineplus.gov/ency/article/003575.htm>]

Abdominal CT scan [<https://medlineplus.gov/ency/article/003789.htm>]

Abdominal MRI scan [<https://medlineplus.gov/ency/article/003796.htm>]

Abdominal tap [<https://medlineplus.gov/ency/article/003896.htm>]

Abdominal ultrasound [<https://medlineplus.gov/ency/article/003777.htm>]

Aldolase blood test [<https://medlineplus.gov/ency/article/003566.htm>]

ALP isoenzyme test [<https://medlineplus.gov/ency/article/003497.htm>]

Amebic liver abscess [<https://medlineplus.gov/ency/article/000211.htm>]

Ammonia blood test [<https://medlineplus.gov/ency/article/003506.htm>]

Antimitochondrial antibody [<https://medlineplus.gov/ency/article/003529.htm>]

Ascites [<https://medlineplus.gov/ency/article/000286.htm>]

Autoimmune liver disease panel [<https://medlineplus.gov/ency/article/003328.htm>]

Bleeding esophageal varices [<https://medlineplus.gov/ency/article/000268.htm>]

Diet - liver disease [<https://medlineplus.gov/ency/article/002441.htm>]

Enlarged liver [<https://medlineplus.gov/ency/article/003275.htm>]

Ferritin blood test [<https://medlineplus.gov/ency/article/003490.htm>]

Hepatic hemangioma [<https://medlineplus.gov/ency/article/000243.htm>]

Hepatic ischemia [<https://medlineplus.gov/ency/article/000214.htm>]

Hepatic vein obstruction (Budd-Chiari) [<https://medlineplus.gov/ency/article/000239.htm>]

Hepatocerebral degeneration [<https://medlineplus.gov/ency/article/001393.htm>]

Lactate dehydrogenase test [<https://medlineplus.gov/ency/article/003471.htm>]

LDH isoenzyme blood test [<https://medlineplus.gov/ency/article/003499.htm>]

Leucine aminopeptidase - urine [<https://medlineplus.gov/ency/article/003617.htm>]

Leucine aminopeptidase blood test [<https://medlineplus.gov/ency/article/003559.htm>]

Liver biopsy [<https://medlineplus.gov/ency/article/003895.htm>]

Liver disease [<https://medlineplus.gov/ency/article/000205.htm>]

Liver scan [<https://medlineplus.gov/ency/article/003825.htm>]

Loss of brain function - liver disease [<https://medlineplus.gov/ency/article/000302.htm>]

Peritonitis - secondary [<https://medlineplus.gov/ency/article/000651.htm>]

Peritonitis - spontaneous bacterial [<https://medlineplus.gov/ency/article/000648.htm>]

Phosphorus blood test [<https://medlineplus.gov/ency/article/003478.htm>]

Portacaval shunting [<https://medlineplus.gov/ency/article/007336.htm>]

Protein electrophoresis - serum [<https://medlineplus.gov/ency/article/003540.htm>]

Pyogenic liver abscess [<https://medlineplus.gov/ency/article/000261.htm>]

Quantitative nephelometry test [<https://medlineplus.gov/ency/article/003545.htm>]

TBG blood test [<https://medlineplus.gov/ency/article/003374.htm>]

Total iron binding capacity [<https://medlineplus.gov/ency/article/003489.htm>]

Total protein [<https://medlineplus.gov/ency/article/003483.htm>]

Transjugular intrahepatic portosystemic shunt (TIPS) [<https://medlineplus.gov/ency/article/007210.htm>]

## Related Health Topics

Bile Duct Diseases [<https://medlineplus.gov/bileductdiseases.html>]

Cirrhosis [<https://medlineplus.gov/cirrhosis.html>]

Fatty Liver Disease [<https://medlineplus.gov/fattyliverdisease.html>]

Hepatitis [<https://medlineplus.gov/hepatitis.html>]

Hepatitis A [<https://medlineplus.gov/hepatitisa.html>]

Hepatitis B [<https://medlineplus.gov/hepatitisb.html>]

Hepatitis C [<https://medlineplus.gov/hepatitisc.html>]

Jaundice [<https://medlineplus.gov/jaundice.html>]

Liver Cancer [<https://medlineplus.gov/livercancer.html>]

Liver Transplantation [<https://medlineplus.gov/livertransplantation.html>]

Reye Syndrome [<https://medlineplus.gov/reyesyndrome.html>]

Wilson Disease [<https://medlineplus.gov/wilsondisease.html>]

## National Institutes of Health

The primary NIH organization for research on *Liver Diseases* is the National Institute of Diabetes and Digestive and Kidney Diseases [<https://www.niddk.nih.gov>]

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