CONDITION

Cholestasis

Learn how cholestasis affects bile flow, including possible symptoms, causes, testing, treatment, complications, and when to seek urgent care.

WHAT IT IS
Reduced or blocked bile flow from the liver

BODY SYSTEM
Digestive

MAIN SYMPTOMS
Jaundice, itching, dark urine, pale stools

WHAT CAUSES IT
Blockage, liver disease, medicines, infection

HOW IT IS DIAGNOSED
Liver blood tests and bile duct imaging

MAIN TREATMENT
Restoring bile flow and treating the cause

CAN IT BE CURED?
Sometimes - reversible causes can be treated

IS IT AN EMERGENCY?
Sometimes - jaundice with fever, chills, or significant upper abdominal pain

LONG-TERM OUTLOOK
Chronic cholestasis can cause cirrhosis and liver failure

Overview

Cholestasis means that bile flow from the liver is reduced or blocked. Bile is a digestive fluid made by the liver. It travels through bile ducts, may be stored in the gallbladder, and enters the small intestine to help digest fats.

When bile does not flow normally, bilirubin, bile acids, cholesterol, and other substances can build up in the liver and blood. Bilirubin is a yellow pigment produced when old red blood cells break down. Its buildup can cause jaundice, or yellowing of the skin or whites of the eyes.

Cholestasis is not a single disease. Doctors classify it by where bile flow is disrupted:

Treatment depends on the cause. A bile duct stone may need removal, while medicine-related cholestasis may improve after the medicine is safely stopped. Long-lasting cholestasis can

damage the liver and interfere with the absorption of fats and certain vitamins.

- Intrahepatic cholestasis begins within the liver and may result from liver disease, pregnancy, infection, an inherited condition, or a medicine.
- Extrahepatic cholestasis results from a blockage in larger bile ducts outside the liver. Possible causes include gallstones, narrowed ducts, and tumors.

Symptoms

Some people have no symptoms, and cholestasis is first detected through abnormal liver blood tests.

Possible symptoms include:

Itching may be widespread, worsen at night, disrupt sleep, and lead to skin damage from scratching. Its severity does not necessarily reflect the degree of liver injury.

Sudden upper-right abdominal pain with jaundice may occur with a blocked bile duct. More gradual fatigue and itching may accompany a chronic liver or bile duct condition, but symptoms alone cannot identify the cause.

During pregnancy, intrahepatic cholestasis of pregnancy often causes itching without a rash, especially on the palms and soles. Report significant new itching promptly to the obstetric team. Reduced fetal movement requires immediate obstetric assessment.

Jaundice with fever, chills, or significant upper abdominal pain may indicate an infected blocked duct, called acute cholangitis. This is an emergency. Confusion, fainting, severe weakness, repeated vomiting, or unusual bleeding also require urgent care.

- Yellow skin or eyes
- Dark urine
- Pale, gray, or clay-colored stools
- Itching, sometimes without a rash
- Fatigue
- Loss of appetite or nausea
- Upper-right abdominal discomfort
- Greasy, bulky, or difficult-to-flush stools
- Unintended weight loss

Causes and risk factors

Cholestasis develops when liver cells have difficulty producing or transporting bile or when a bile duct becomes narrowed or blocked.

Causes outside the liver include:

Causes within the liver include:

Risk varies by cause. Previous gallstones, rapid weight loss, or certain metabolic conditions may increase gallstone risk. Bile duct procedures can lead to strictures. Primary sclerosing cholangitis is associated with inflammatory bowel disease, particularly ulcerative colitis. Cholestasis of pregnancy often recurs in later pregnancies.

Provide clinicians with a complete list of medicines and supplements, including products started months earlier. Do not stop a prescribed medicine without medical advice unless emergency clinicians instruct you to do so.

- Gallstones: Stones may leave the gallbladder and lodge in the common bile duct.
- Bile duct narrowing: A stricture may follow surgery, inflammation, injury, or repeated infection.
- Pancreatic or bile duct disease: Swelling, scarring, cysts, or tumors can obstruct drainage.
- Primary sclerosing cholangitis: This chronic condition causes inflammation and scarring in bile ducts inside and outside the liver.
- Medicine-related liver injury: Prescription medicines, nonprescription products, and dietary or herbal supplements can impair bile flow.
- Primary biliary cholangitis: This autoimmune disease damages the liver's small bile ducts.
- Infection or severe illness: Viral hepatitis, serious bacterial infections, and critical illness may cause cholestasis.
- Pregnancy: Hormonal and genetic factors contribute to intrahepatic cholestasis of pregnancy.
- Alcohol-related or metabolic liver disease
- Inherited disorders affecting bile formation or transport
- Infiltrative disease: Certain cancers or granulomatous diseases can disrupt bile flow.

Diagnosis

Diagnosis includes reviewing symptoms, pregnancy status, alcohol use, recent illnesses or

procedures, and all medicines and supplements. A clinician may check for jaundice, abdominal tenderness, scratch marks, and signs of chronic liver disease.

Blood tests may include:

Abdominal ultrasound is often the first imaging test. It can identify gallstones, widened bile ducts, and some liver, gallbladder, or pancreatic changes.

Magnetic resonance cholangiopancreatography (MRCP) provides detailed bile duct images without placing an instrument inside the ducts. Endoscopic ultrasound can examine the bile duct and pancreas more closely.

Endoscopic retrograde cholangiopancreatography (ERCP) uses a flexible tube passed through the mouth into the small intestine. Because it can cause complications, ERCP is generally used when treatment may be required, such as stone removal, dilation of a narrowed duct, or placement of a drainage stent.

A liver biopsy may be considered when blood tests and imaging do not explain the cholestasis or when tissue could clarify a suspected liver condition.

- Alkaline phosphatase (ALP): Often elevated when bile flow is impaired, although ALP also comes from bone and the placenta.
- Gamma-glutamyl transferase (GGT): Can help determine whether an ALP elevation is related to the liver or bile ducts.
- Bilirubin: May rise when bile cannot drain, but a normal result does not exclude cholestasis.
- ALT and AST: Assess liver-cell injury.
- Albumin and clotting tests: Help evaluate the liver's ability to make proteins.
- Cause-specific tests: May check for viral hepatitis, autoimmune antibodies, or blood bile acid levels during pregnancy.

Treatment and management

Treatment aims to restore bile flow, address the underlying cause, and relieve symptoms.

A blocked duct may require ERCP or another drainage procedure. Stones can sometimes be removed during ERCP, while narrowed areas may be widened or held open with a stent. Surgery or image-guided drainage may be needed if endoscopic treatment is not possible. Tumors require multidisciplinary evaluation to consider drainage, surgery, medicines, or other cancer treatments.

If a medicine or supplement is suspected, a clinician will decide whether to stop or replace it. Recovery may take time, and follow-up blood tests are usually needed. Do not restart a suspected product without medical advice because repeat exposure can cause more serious injury.

Treatment for chronic cholestatic disease is condition-specific. Ursodeoxycholic acid is used for primary biliary cholangitis and selected other conditions, but it is not appropriate for every cause. Primary sclerosing cholangitis may require treatment of duct narrowing, infection, and associated inflammatory bowel disease. Advanced disease may require liver transplant evaluation.

Treating the cause may relieve itching. Cool baths, moisturizers, loose clothing, and avoiding overheating may help, but prescription treatment is often needed. Options can have side effects or medication interactions and require professional supervision. Antihistamines like cetirizine or loratadine may help with sleep but often do not treat the underlying itch.

Long-term cholestasis can reduce absorption of fat-soluble vitamins A, D, E, and K. A clinician may test levels and recommend supplements. Unsupervised high-dose vitamin use can be harmful. Chronic disease may also require nutrition assessment, bone-health monitoring, and review of alcohol use, medicines, and supplements.

Complications

A completely blocked duct can become infected. Acute cholangitis may spread into the bloodstream and requires rapid antibiotics like amoxicillin or doxycycline and, when indicated, bile duct drainage.

Ongoing cholestasis may cause:

Some underlying diseases carry additional risks. Primary sclerosing cholangitis is associated with bile duct cancer and, in people with inflammatory bowel disease, colorectal cancer. Chronic liver diseases can cause portal hypertension, or increased pressure in veins carrying blood through the liver.

Intrahepatic cholestasis of pregnancy can affect fetal health. It requires coordinated obstetric care, appropriate repeat testing, and an individualized delivery plan based on current guidance.

- Liver inflammation, scarring, cirrhosis, and liver failure
- Poor absorption of dietary fat
- Deficiencies of vitamins A, D, E, or K

- Weak bones and increased fracture risk
- Weight loss or poor growth in children
- Persistent itching, skin injury, and sleep loss

Follow up

Follow-up depends on whether cholestasis was temporary, caused by a removable blockage, or related to chronic disease. Monitoring may include liver blood tests, symptom and medication reviews, and imaging. People with chronic cholestatic disease may also need vitamin assessment, bone-density testing, and surveillance tailored to their diagnosis.

Keep follow-up appointments even if jaundice or itching improves. Abnormal tests or a remaining blockage can persist after symptoms lessen.

Contact a clinician promptly for new jaundice, dark urine with pale stools, worsening itching, fever, abdominal pain, unexplained weight loss, or recurring symptoms after treatment. Report significant itching during pregnancy promptly.

Seek emergency care for:

- Jaundice with fever, chills, or significant upper abdominal pain
- Confusion, fainting, severe drowsiness, or unusual bleeding
- Repeated vomiting with inability to keep fluids down
- Rapid deterioration with known liver or bile duct disease
- Reduced fetal movement during pregnancy

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