

جامعة ساوة الاهلية
كلية التقنيات الصحية والطبية
قسم التخدير - اللجنة العلمية

jaundice



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قسم تقنيات التخدير

المرحلة الثالثة

المحاضرة الاولى

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Jaundice

jaundice

is a serious medical condition that makes your skin and the whites of your eyes look yellowish. this happens when too much bilirubin builds up in your blood.

bilirubin is a yellowish pigment created as hemoglobin — a component of red blood cells — is broken down.

normally, bilirubin is delivered from the bloodstream into your liver. then, it passes through tubes called bile ducts. these ducts carry a substance called bile into your small intestine. eventually, bilirubin is passed out of your body through urine or stool.

Types of jaundice

are categorized by where they happen within the liver's process of taking in and filtering out bilirubin. They include

Source:

- Pre-hepatic jaundice.
- Hepatic jaundice .
- Post-hepatic jaundice .

All about pre-hepatic jaundice

Pre-hepatic jaundice is caused by conditions that raise your blood's rate of hemolysis. This is the process through which red blood cells are broken down, converting hemoglobin to bilirubin.

Because the liver can only process so much bilirubin at once, bilirubin overflows into bodily tissues, resulting in jaundice.

Causes of pre-hepatic jaundice

Having certain conditions that affect how your red blood cells are broken down may lead to jaundice.

Common causes of pre-hepatic jaundice [include Trusted Source](#):
[malaria](#), a blood infection caused by a parasite
[sickle cell anemia](#), a genetic condition in which red blood cells become crescent-shaped rather than the typical disc shape
[spherocytosis](#), a genetic condition of the red blood cell membrane that causes them to be sphere-shaped rather than disc-shaped
[thalassemia](#), a genetic condition that causes your body to make an irregular type of hemoglobin that limits the number of healthy red blood cells in your bloodstream

Symptoms of pre-hepatic jaundice

abdominal pain

fever, including chills or cold sweats

abnormal weight loss

feeling itchy

dark urine or pale stool

Diagnosis of pre-hepatic jaundice

To diagnose pre-hepatic jaundice, a doctor will likely order tests to determine your liver function and measure bilirubin.

a urinalysis to measure the amount of certain substances in your urine

blood tests, such as a complete blood count (CBC) or liver function tests to measure bilirubin and other substances in the blood

imaging tests, such as an MRI or ultrasound, to examine your liver, gallbladder, and bile ducts to rule out other forms of jaundice

a HIDA scan to help find blockages or other issues in the liver, gallbladder, bile ducts, and small intestine

Treatment for pre-hepatic jaundice

Treatment for this type of jaundice involves treating the condition that is causing it. The treatment options will vary by condition.

Treatment for pre-hepatic jaundice may include:

For malaria:

medications to help destroy the parasite and prevent parasites from reinfecting your liver again

For sickle cell anemia:

blood transfusions from a healthy donor

rehydrating with intravenous (IV) fluid

medications for any infections that can cause a sickle cell crisis

For spherocytosis:

folic acid supplements

blood transfusions for anemia

spleen removal surgery to help increase red blood cell life and lower the chance of gallstones

For thalassemia:

blood transfusions

bone marrow transplants

spleen or gallbladder removal surgery

Jaundice



All about hepatic jaundice

Hepatic jaundice happens when your liver tissue is scarred (known as cirrhosis), damaged, or dysfunctional. This makes it less effective at filtering out bilirubin from your blood.

Since it can't be filtered into your digestive system for removal, bilirubin builds up to high levels in your blood.

Causes of hepatic jaundice

Hepatic jaundice occurs when the liver becomes less effective at removing bilirubin from the blood. This can occur if you have liver damage or conditions that affect liver function.

Common causes Trusted Source of hepatic jaundice include:

liver cirrhosis, which means that liver tissues are scarred by long-term exposure to infections or toxic substances, such as high levels of alcohol

viral hepatitis, an inflammation of the liver caused by one of several viruses that can get into your body through infected food, water, blood, stool, or sexual contact

primary biliary cirrhosis, which happens when bile ducts are damaged and can't process bile, causing it to build up in your liver and damage liver tissue

alcoholic hepatitis, in which your liver tissues are scarred by the heavy, long-term drinking of alcohol

leptospirosis, a bacterial infection that can be spread by infected animals or infected animal urine or feces

liver cancer, in which cancerous cells develop and multiply within liver tissues

loss of appetite

bloody nose

skin itching

weakness

abnormal weight loss

swelling of your abdomen or legs

dark urine or pale stool

pain in your muscles or joints

darkening skin

fever

feeling sick

throwing up

To diagnose hepatic jaundice, a doctor will likely order the following tests:

a urinalysis to measure levels of substances in your urine related to your liver function

blood tests, such as a complete blood count (CBC) and antibody tests, or liver function tests to measure bilirubin in the blood and levels of substances that indicate that your liver may not be processing bilirubin properly

imaging tests, such as an MRI or ultrasound, to examine your liver for damage or for the presence of cancerous cells

an endoscopy, which involves inserting a thin, lighted tube into a small incision to look at your liver and take a tissue sample (biopsy) if necessary for analysis for cancer or other conditions

Hepatic jaundice treatment

Treatment for hepatic jaundice involves treating its cause. Treatment may vary depending on the condition.

In some instances, following a diet for jaundice may help.

For liver cirrhosis:

quitting drinking

beta-blockers

intravenous (IV) antibiotics

a low protein diet

For viral hepatitis:

antiviral medications

hepatitis vaccination

plenty of rest and fluids

For primary biliary cirrhosis:

bile acids to help with digestion

bile-lowering medication

For alcoholic hepatitis:

quitting alcohol

nutrition supplements

liver transplant, in severe cases

For leptospirosis:

antibiotics for infection

ventilator for breathing trouble

dialysis for kidney damage

For liver cancer:

chemotherapy or radiation to kill cancer cells

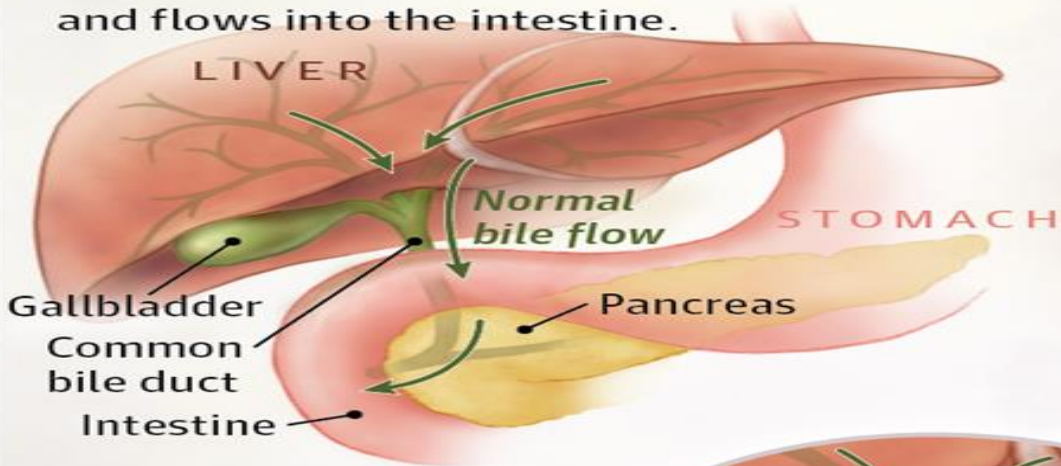
partial liver resection

liver transplant

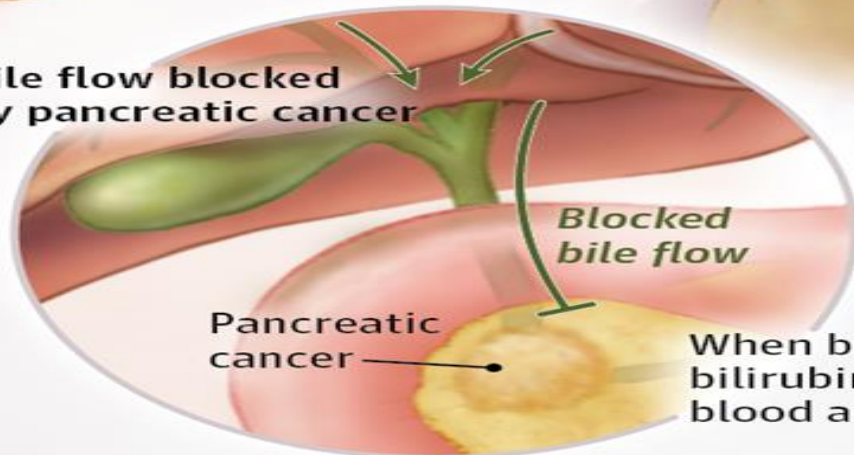
Posthepatic jaundice

Normal bile flow

Bilirubin, the substance that causes jaundice, is processed in the liver. It leaves the liver in the bile fluid and flows into the intestine.



Bile flow blocked by pancreatic cancer



When bile flow is blocked, bilirubin levels increase in the blood and can cause jaundice.



Jaundice

Yellowing of the skin and white of the eyes

Post-hepatic, or obstructive jaundice, happens when bilirubin can't be drained properly into the bile ducts or digestive tract because of a blockage.

Causes of post-hepatic jaundice

Causes of post-hepatic jaundice may include **Trusted Source:**

gallstones, hard calcium deposits in the gallbladder that can block bile ducts

pancreatic cancer, the development and spread of cancer cells in the pancreas, an organ that helps produce digestive substances

bile duct cancer, the development and spread of cancer cells in your bile ducts

pancreatitis, an inflammation or infection of your pancreas

biliary atresia, a genetic condition in which you have narrow or missing bile ducts

Symptoms of post-hepatic jaundice

feeling sick

throwing up

dark urine or pale stool

abdominal pain

diarrhea

abnormal weight loss

skin itching

abdominal swelling

fever

Diagnosis of post-hepatic jaundice

a **urinalysis** to measure levels of substances in your urine

blood tests, such as a complete blood count (CBC) and antibody tests for cancer, or liver function tests to rule out hepatic jaundice

imaging tests, such as an MRI, ultrasound, or HIDA scan, to examine your liver, gallbladder, and bile ducts for obstructions like gallstones or tumors

an endoscopy, which involves inserting a thin, lighted tube down the esophagus to look at your liver, gallbladder, or bile ducts and take a tissue sample if necessary for analysis for cancer or other conditions

Post-hepatic jaundice treatment

Treatment for post-hepatic jaundice will address the cause.

For gallstones:

changing your diet to stop producing gallstones

removing gallstones or your gallbladder entirely

taking medications or treatments to dissolve gallstones

For pancreatic cancer:

surgery to remove cancerous tissue or your whole pancreas

radiation or chemotherapy to destroy cancer cells

For bile duct cancer:

surgery to remove bile ducts and parts of your liver and pancreas

radiation or chemotherapy to destroy cancer cells

liver transplant

For pancreatitis:

rest
intravenous (IV) fluids or pain medication
surgery to remove any causes of inflammation (like gallstones)

For biliary atresia:

the Kasai procedure to remove and replace ducts
liver transplant



SCAN TO GET THE LECTURE

