TEST

Bilirubin - urine

A urine bilirubin test checks whether water-soluble bilirubin is present in a urine sample.

WHAT IT MEASURES
Water-soluble bilirubin in urine

SAMPLE
Urine

FASTING NEEDED?
No

HOW LONG IT TAKES
About 5 to 10 minutes

RESULTS IN
Same day to two days; timing differs by laboratory

USED FOR
Urinalysis and investigating liver or bile duct problems

MAIN LIMITATION
Light and delays can make a positive sample appear negative

Overview

A urine bilirubin test checks for bilirubin in a urine sample. It is usually part of a urinalysis , a group of urine tests performed using a test strip or laboratory equipment.

Bilirubin is a yellow substance made when the body breaks down old red blood cells. The liver processes it and releases it into bile, which travels through the bile ducts into the intestine.

Processed, or conjugated , bilirubin dissolves in water and can enter urine. Unprocessed, or unconjugated , bilirubin does not dissolve in water and is not normally detected by this test.

Urine usually contains little or no detectable bilirubin. Finding it can be an early sign that processed bilirubin is building up in the blood, but the test cannot identify the cause by itself.

Why the test is ordered

The test may be included in a routine urinalysis or ordered when symptoms or other results suggest a liver or bile duct problem.

Reasons for testing include:

Urine bilirubin may be detected before jaundice becomes clearly visible. However, the test is generally used alongside blood tests rather than as a stand-alone diagnostic test.

- Dark brown or tea-coloured urine
- Yellowing of the skin or eyes, called jaundice
- Pale stools, itching, nausea, or upper abdominal discomfort
- Abnormal bilirubin or liver enzyme blood tests
- Monitoring a liver or bile duct condition

Who should have the test

You may have this test as part of a general urine check or because your symptoms, medical history, medicines, or blood results need investigation.

You do not usually need to request it separately if a clinician has arranged a full urinalysis. The same test strip commonly checks for bilirubin, blood, protein, glucose, and signs of urinary infection.

A positive result does not identify a specific condition, so further testing may be needed.

How to prepare

You do not usually need to fast. Coffee, water, and normal meals do not directly interfere unless you have separate instructions for other tests.

Tell the healthcare professional or laboratory about prescription and non-prescription medicines, vitamins, and supplements. Some medicines and strongly coloured substances can interfere with urine test strips. Do not stop prescribed medicine unless advised to do so.

Use the sterile or clean container provided. Do not collect urine from a toilet bowl or another container that may contain cleaning products.

What happens during the test

You will usually provide a midstream clean-catch sample to reduce contamination by skin cells, discharge, and bacteria.

Wash your hands and clean around the urinary opening if instructed. Begin urinating into the

toilet, move the container into the stream, and collect a small amount. Finish urinating into the toilet.

Close the container without touching the inside and give it to staff promptly. For home collection, follow the storage and delivery instructions carefully.

In the clinic or laboratory, a reagent strip is dipped into the urine. A chemical pad changes colour if bilirubin reacts with it. Some laboratories use an automated reader.

Understanding your results

Results are usually reported as negative or positive . Some systems use categories such as trace, small, moderate, or large.

A negative result means bilirubin was not detected. This is the usual finding, but it does not rule out every liver or bile duct problem. Conditions that mainly raise unconjugated bilirubin will not produce a positive urine result.

A positive result means water-soluble bilirubin was detected. This can happen when the liver cannot process or release bilirubin normally or when bile flow is blocked. The result cannot show the location, cause, or severity of the problem.

Categories vary between test strips and laboratories. Results are interpreted in the context of symptoms, medicines, pregnancy, and other findings. Blood tests for total and direct bilirubin and liver enzymes, and sometimes imaging, are usually more informative.

What affects the results

Collection, storage, and testing conditions can make results misleading.

Bilirubin breaks down when urine is exposed to light. A sample left in sunlight or bright indoor light may test negative even if bilirubin was present. Delayed testing can have the same effect.

Large amounts of vitamin C and high urine nitrite levels may reduce the colour reaction on some strips.

Phenazopyridine, which turns urine orange, can make a strip difficult to read and may cause a false-positive or unreliable result. Other strongly coloured medicines or drug metabolites may also interfere.

Very dilute urine may contain too little bilirubin for detection. Concentrated or deeply coloured urine can make visual interpretation harder.

Meals, coffee, exercise, age, and pregnancy do not usually create urine bilirubin. However, new

jaundice or severe itching during pregnancy needs medical assessment.

Red blood cell breakdown, including some transfusion reactions, may mainly raise unconjugated bilirubin. Because this form does not enter urine, the urine result can remain negative despite an abnormal blood bilirubin result.

Accuracy and limitations

Urine test strips are useful but not perfectly accurate. A fresh, properly handled sample improves reliability.

The test may miss bilirubin if the amount is below the detection limit, the urine is very dilute, or the sample has been exposed to light or tested late. Vitamin C and other chemical interference can also cause a false-negative result.

Urine colour or medicines can produce false-positive or unreliable results. Repeating the test with a fresh sample or using a laboratory confirmation method may clarify an unexpected finding.

Urine testing cannot detect all forms of bilirubin or diagnose the cause of an abnormal result. Blood tests can measure bilirubin and separate direct from indirect forms. Ultrasound or other imaging may be needed if blocked bile flow is suspected.

Risks and complications

Providing a urine sample has no significant physical risk. Collection may be uncomfortable or difficult for some people, but the test does not involve needles, radiation, or instruments entering the body.

What happens next

A negative result may need no follow-up if it was part of a routine urinalysis and there are no concerning symptoms or other abnormal findings.

An unexpected positive result is usually followed by a review of symptoms, medicines, and sample handling. A fresh urine sample and blood tests may be requested. Depending on the findings, an ultrasound or another test may be considered.

Contact a healthcare professional promptly if you develop yellow skin or eyes, persistently dark urine, pale stools, or significant itching. Seek same-day urgent care if jaundice occurs with

fever, severe upper abdominal pain, or repeated vomiting.

Call emergency services if jaundice is accompanied by confusion, extreme drowsiness, collapse, or another sudden severe illness. A positive urine result without these symptoms is not, by itself, an emergency.

Common questions

Can I drink coffee before the test?

Yes. Coffee does not usually affect urine bilirubin. Follow separate fasting instructions if you are also having blood tests or another procedure.

Does the time of day matter?

Usually not. A fresh sample tested promptly matters more. Follow instructions if the laboratory requests a first-morning sample.

Can I exercise beforehand?

Normal exercise is unlikely to affect urine bilirubin. Strenuous exercise can alter other urinalysis results, including blood or protein, so mention recent intense activity if these are abnormal.

Can dehydration cause a positive result?

Dehydration makes urine darker and more concentrated but does not normally create bilirubin. Dark urine can make a manually read strip harder to interpret.

Can my medicine affect the result?

Yes. Phenazopyridine and some other medicines can change urine colour or interfere with the reaction. Do not stop prescribed medicine unless advised to do so.

Can I test urine bilirubin at home?

Some home urine strips include bilirubin, but storage, timing, lighting, and colour interpretation affect accuracy. Have an unexpected home result confirmed with a fresh sample through a healthcare service.

Sources

- MedlinePlus Medical Test: Bilirubin in Urine
- National Library of Medicine, Clinical Methods: Urinalysis

- National Library of Medicine, StatPearls: Bilirubinuria
- American Family Physician: Urinalysis-A Comprehensive Review
- Merck Manual Professional Edition: Laboratory Tests of the Liver and Gallbladder