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Bilirubin blood test

The bilirubin blood test measures the level of bilirubin in the blood. Bilirubin is a yellowish pigment found in bile, a fluid made by the liver.

Bilirubin can also be measured with a urine test.

How the Test is Performed

A blood sample is needed.

How to Prepare for the Test

You should not eat or drink for at least 4 hours before the test. Your health care provider may instruct you to stop taking medicines that affect the test.

Many drugs may change the bilirubin level in your blood. Make sure your provider knows which medicines you are taking.

How the Test will Feel

When the needle is inserted to draw blood, some people feel moderate pain. Others feel only a prick or stinging. Afterward, there may be some throbbing or a slight bruise. This soon goes away.

Why the Test is Performed

A small amount of older red blood cells are replaced by new blood cells every day. Bilirubin is left in the blood after these older blood cells are removed. The liver helps break down bilirubin so that it can be removed from the body in the stool.

A level of bilirubin in the blood of 2.0 mg/dL can create jaundice. Jaundice is a yellow color in the skin, mucus membranes, or eyes.

Jaundice is the most common reason to check bilirubin level. The test will likely be ordered when:

- The provider is concerned about a newborn's jaundice (most newborns have some jaundice)
- Jaundice develops in older infants, children, and adults

A bilirubin test is also ordered when the provider suspects a person has liver or gallbladder problems.

Normal Results

It is normal to have some bilirubin in the blood. A normal level is:

- Direct (also called conjugated) bilirubin: less than 0.3 mg/dL (less than 5.1 µmol/L)
- Total bilirubin: 0.1 to 1.2 mg/dL (1.71 to 20.5 µmol/L)

Normal value ranges may vary slightly among different laboratories. Some labs use different measurements or may test different samples. Talk to your provider about the meaning of your specific test results.

What Abnormal Results Mean

In newborns, bilirubin level is higher for the first few days of life. Your child's provider must consider the following when deciding whether your baby's bilirubin level is too high:

- How fast the level has been rising
- Whether the baby was born early
- The baby's age

Jaundice can also occur when more red blood cells than normal are broken down. This can be caused by:

- A blood disorder called erythroblastosis fetalis
- A red blood cell disorder called hemolytic anemia
- Transfusion reaction in which red blood cells that were given in a transfusion are destroyed by the person's immune system

The following liver problems may also cause jaundice or a high bilirubin level:

- Scarring of the liver (cirrhosis)
- Swollen and inflamed liver (hepatitis)
- Other liver disease
- Disorder in which bilirubin is not processed normally by the liver (for example, Gilbert disease)

The following problems with gallbladder or bile ducts may cause higher bilirubin levels:

- Abnormal narrowing of the common bile duct (biliary stricture)
- Cancer of the pancreas or gallbladder
- Gallstones

Risks

There is little risk involved with having your blood taken. Veins vary in size from one person to another and from one side of the body to the other. Obtaining a blood sample from some people may be more difficult than from others.

Risks associated with having blood drawn are slight, but may include:

- Excessive bleeding
- Fainting or feeling lightheaded
- Multiple punctures to locate veins
- Hematoma (blood collecting under the skin)
- Infection (a slight risk any time the skin is broken)

Alternative Names

Total bilirubin - blood; Unconjugated bilirubin - blood; Indirect bilirubin - blood; Conjugated bilirubin - blood; Direct bilirubin - blood; Jaundice - bilirubin blood test; Hyperbilirubinemia - bilirubin blood test

References

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Review Date 2/28/2023

Updated by: Jacob Berman, MD, MPH, Clinical Assistant Professor of Medicine, Division of General Internal Medicine, University of Washington School of Medicine, Seattle, WA. Also reviewed by David C. Dugdale, MD, Medical Director, Brenda Conaway, Editorial Director, and the A.D.A.M. Editorial team.