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Bile Duct Cancer - Diagnosis [1]

This section has been reviewed and approved by the [Cancer.Net Editorial Board](#) [2], 09/2014

ON THIS PAGE: You will find a list of the common tests, procedures, and scans that doctors can use to find out what's wrong and identify the cause of the problem. To see other pages, use the menu on the side of your screen.

Doctors use many tests to diagnose cancer and find out if it has spread to another part of the body, called metastasis. Some tests may also determine which treatments may be the most effective. For most types of cancer, a biopsy is the only way to make a definitive diagnosis of cancer. If a biopsy is not possible, the doctor may suggest other tests that will help make a diagnosis. Imaging tests may be used to find out whether the cancer has spread. This list describes options for diagnosing this type of cancer, and not all tests listed will be used for every person. Your doctor may consider these factors when choosing a diagnostic test:

- Age and medical condition
- Type of cancer suspected
- Signs and symptoms
- Previous test results

In addition to a physical examination, the following tests may be used to diagnose bile duct cancer or distinguish it from other possible causes of jaundice (see [Symptoms](#) [3]):

[Blood chemistry tests](#) [4]. Blood chemistry tests measure the levels of bilirubin and alkaline phosphatase and check other liver functions. High levels of these substances could indicate that the bile duct is not working well.

[Tumor marker tests](#) [5] (**CEA and CA19-9**). Tumor markers are substances found in higher than normal amounts in the blood, urine, or tissues of people with certain types of cancer. Bile

duct cancer may cause high levels of carcinoembryonic antigen (CEA) and CA19-9 in the blood. However, a person can have bile duct cancer even if there are normal levels of these markers. Also, diseases other than cancer can sometime cause high levels of these substances.

Other tests may be performed to provide more information about the bile duct cancer. These include:

Biopsy [6]. A biopsy is the removal of a small amount of tissue for examination under a microscope. The sample removed during the biopsy is analyzed by a pathologist. A pathologist is a doctor who specializes in interpreting laboratory tests and evaluating cells, tissues, and organs to diagnose disease.

The type of biopsy performed depends on the location of the tumor. The doctor can remove tissue samples during a procedure called a percutaneous transhepatic cholangiography (PTC) or another procedure called an endoscopic retrograde cholangiopancreatography (ERCP). PTC and ERCP are described below. Alternatively, a computed tomography scan (CT or CAT scan; see below) may be used to guide a thin needle through the skin into the area to collect a sample of cells.

Other tests can suggest that cancer is present, but only a biopsy can make a definite diagnosis. Occasionally, a biopsy is not possible. In this uncommon situation, people will be treated for bile duct cancer based on other test results and symptoms.

Ultrasound [7]. An ultrasound uses sound waves to create a picture of the internal organs. During an ultrasound, the doctor may be able to see the actual tumor; however, more often, the ultrasound will show that the small bile ducts, located behind a blockage of one of the larger bile ducts, get larger. This is called a “dilation of ducts.”

To view the bile duct, the doctor may use an [endoscopic](#) [8] ultrasound, which uses a thin, flexible tube, called an endoscope, which is inserted through the mouth, or a laparoscopic ultrasound. (Learn more about laparoscopy below.) Both of these procedures provide a clearer view of the bile duct and can help the doctor perform a biopsy.

CT scan [9]. A CT scan creates a three-dimensional picture of the inside of the body with an x-ray machine. A computer then combines these images into a detailed, cross-sectional view that shows any abnormalities or tumors. A CT scan can also be used to measure the tumor’s size. Sometimes, a special dye called a contrast medium is given before the scan to provide better detail on the image. This dye can be injected into a patient’s vein or given as a pill to swallow.

Magnetic resonance imaging (MRI) [10]. An MRI uses magnetic fields, not x-rays, to produce detailed images of the body. A specialized MRI used for the bile duct is called MRI cholangiopancreatography. A contrast medium may be injected into a patient’s vein or given as a pill to swallow before the MRI to create a clearer picture.

PTC. During this test, a thin needle is inserted into the bile duct in the liver. The doctor injects a

contrast medium through the needle that allows the bile ducts to show up on x-rays. By looking at the x-rays, the doctor can tell whether there is a blockage of the bile ducts and, if so, locate the site of the blockage. This is important in planning treatment.

ERCP. During this procedure, the doctor inserts a flexible tube down a person's throat, through the stomach, and into the bile duct while the patient is lightly sedated. Sedation is the use of medication to become more relaxed, calm, or sleepy. Dye is injected into the tube, which helps outline the bile duct on an x-ray. A tiny brush can also be inserted through the tube to collect cells and tissue fragments for a biopsy. This technique can help find and take a sample of the tumor and provide information that is important in planning treatment.

Laparoscopy [8]. The doctor views the bile duct, gallbladder, and liver through a lighted tube, called a laparoscope, that is inserted into a surgical opening in the person's abdomen. Some laparoscopes can help the doctor to work with small instruments through the tube to take a tissue sample.

After diagnostic tests are done, your doctor will review all of the results with you. If the diagnosis is cancer, these results also help the doctor describe the cancer; this is called staging.

The next section helps explain the different stages for this type of cancer. Use the menu on the side of your screen to select Stages, or you can select another section, to continue reading this guide.

Links

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- [2] <http://www.cancer.net/about-us>
- [3] <http://www.cancer.net/node/18509>
- [4] <http://www.cancer.net/node/24716>
- [5] <http://www.cancer.net/node/24730>
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