

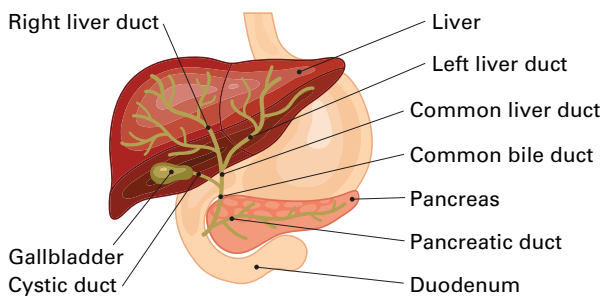
WHAT IS CHOLANGIOCARCINOMA (BILE DUCT CANCER)?

DISEASE AWARENESS FACT SHEET FOR PATIENTS

WHAT IS KNOWN ABOUT PEOPLE DIAGNOSED WITH BILE DUCT CANCER?

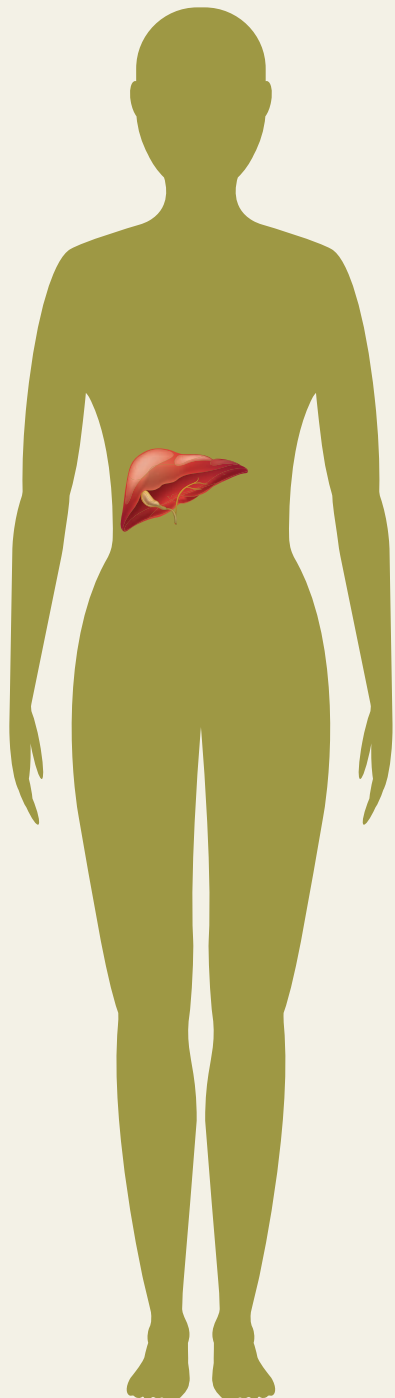
- Bile duct cancer may also be referred to as cholangiocarcinoma, or CCA¹
- Bile duct cancer is rare, with about 8000 people diagnosed every year in the United States¹
- In general, patients diagnosed with bile duct cancer have a 5-year survival rate of 8–10%,² although each patient's prognosis depends on many factors
- For those patients with tumors that have not spread outside of the bile ducts (localized), the 5-year survival rate is 15–24%²
- New therapies are continually being developed that may improve patient outcomes

Liver and Bile Duct Anatomy



WHERE DOES BILE DUCT CANCER FORM?

- Bile duct cancer develops from the growth of cancer cells in the ducts that connect the liver, gallbladder, and small intestine³
- Cancer can form within the ducts inside the liver, where ducts exit the liver, or within the ducts that reach into the pancreas and small intestine³



SYMPTOMS³

- ✓ Abdominal pain
- ✓ Clay-colored stool
- ✓ Dark urine
- ✓ Fever
- ✓ Itching
- ✓ Jaundice
- ✓ Loss of appetite/weight loss
- ✓ Nausea and vomiting

HOW IS BILE DUCT CANCER DIAGNOSED?^{3,4}



Imaging^a to look for potential areas of cancer growth



Use of an endoscope to view ducts and surrounding tissue up close (eg, cholangioscopy, ERCP, or laparoscopy)



Biopsy of bile duct cells/tissue to look for cancer cells and **have DNA sequencing performed^b**



Laboratory tests of blood, urine, and tissue; these tests also help monitor the disease over time

^aRadiography, ultrasound, CT scan, MRI, cholangiography, angiography.

^bNext-generation DNA sequencing can help identify patient-specific DNA mutations to guide treatment decisions.

ERCP, endoscopic retrograde cholangiopancreatography

WHAT IS CHOLANGIOCARCINOMA (BILE DUCT CANCER)?

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HOW IS BILE DUCT CANCER TREATED?

- Whether a bile duct tumor can be treated by surgery (partially or completely) depends on where it is located within the tissue(s)^{3,5}
- Surgery is the preferred option for treatment of bile duct tumors, depending on the location and size of the tumor and other factors⁵
 - In some cases, liver transplant may also be an option
 - Most bile duct tumors are unresectable

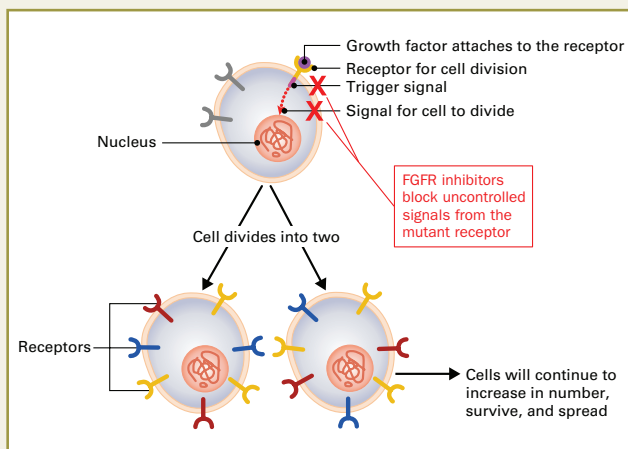
Resectable tumor: Can be removed completely by surgery³

Unresectable tumor: Cannot be removed completely by surgery and additional treatment(s) is needed^{3,5}

- For tumors that cannot be removed with surgery or that have spread to other parts of the body (metastasized), therapy options include the following:
 - Chemotherapy, as a single drug or drug combination (ie, 5-fluorouracil, capecitabine, cisplatin, gemcitabine, oxaliplatin)^{3,6}
 - Radiation therapy³
 - Enrollment in a clinical trial³
- Clinical trials investigate potential new treatments, including targeted treatment and immunotherapy, for various cancers and other diseases^{7,8}
 - Some of these cancer trials are studying drugs that target specific genes that are altered and not working properly
 - These “targeted therapies” differ from chemotherapy in that they are directed at a specific gene instead of having a more widespread (systemic) effect on the body
 - Several targeted therapies are currently being investigated for the treatment of bile duct cancer

WHAT IS AN EXAMPLE OF A TARGETED THERAPY?

- Growth factors are naturally produced by the body⁸
- When a growth factor interacts with a specific marker (receptor) on the surface of a cell, it triggers signals that help cells grow and move⁹
- A specific example is the fibroblast growth factor receptor (FGFR), which is currently being studied as a new target for treatment of bile duct cancer^{8,9}
- Mutations in *FGFR* frequently occur in bile duct cancer tumors, causing uncontrolled growth and movement, which can lead to formation of malignant tumors^{8–10}
- An FGFR inhibitor acts to prevent tumor growth by blocking the uncontrolled signals of the mutant receptor



ADDITIONAL RESOURCES

Your doctor can help provide additional information and answer questions about your symptoms and diagnosis.

Further patient support information can be found at the following organization websites:

- American Cancer Society <https://www.cancer.org/>
- NIH National Cancer Institute <https://www.cancer.gov/>
- Cholangiocarcinoma Foundation <https://cholangiocarcinoma.org/>
- Target Cancer Foundation <http://www.targetcancerfoundation.org/>

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