

# **About Gallbladder Cancer**

Get an overview of gallbladder cancer and the latest key statistics in the US.

## **Overview and Types**

If you've been diagnosed with gallbladder cancer or are worried about it, you likely have a lot of questions. Learning some basics is a good place to start.

• What Is Gallbladder Cancer?

#### **Research and Statistics**

See the latest estimates for new cases of gallbladder cancer and deaths in the US and what research is currently being done.

- Key Statistics for Gallbladder Cancer
- What's New in Gallbladder Cancer Research?

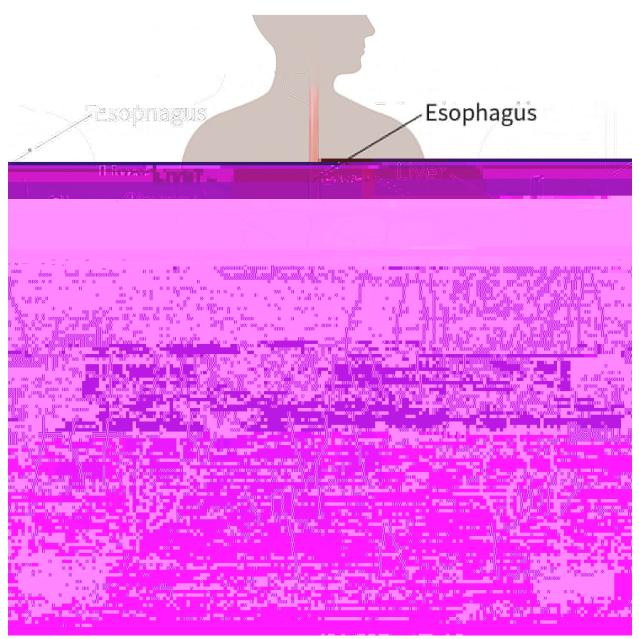
# What Is Gallbladder Cancer?

Gallbladder cancer starts in the gallbladder. To understand this cancer, it helps to know about the gallbladder and what it does.

- About the gallbladder
- Types of gallbladder cancers

# About the gallbladder

The gallbladder is a small, pear-shaped organ under the liver. Both the liver and the gallbladder are behind the right lower ribs. In adults, the gallbladder is usually about 3 to 4 inches long and normally no wider than an inch.



## What Is Cancer? 1

Cancer starts when cells in the body begin to grow out of control. Cells in nearly any

part of the body can become cancer cells. Learn more here.

## Anatomy Gallery: Digestive System<sup>2</sup>

Explore our 3D interactive tour of the digestive system.

The gallbladder concentrates and stores bile, a fluid made in the liver. Bile helps digest the fats in foods as they pass through the small intestine. Bile is made by the liver and is either sent into ducts that carry it to the small intestine, or stored in the gallbladder and released later.

When food (especially fatty food) is being digested, the gallbladder squeezes and sends bile through a small tube called the **cystic duct**. The cystic duct joins up with the common hepatic duct (which comes from the liver) to form the **common bile duct**. The common bile duct joins with the main duct from the pancreas (the **pancreatic duct**) to empty into the first part of the small intestine (the duodenum) at the **ampulla of Vater**.



The gallbladder helps digest food, but you don't need it to live. Many people have their gallbladders removed and go on to live normal lives.

## Types of gallbladder cancers

Gallbladder cancers rare and nearly all of them are adenocarcinomas. An adenocarcinoma is a cancer that starts in gland-like cells that line many surfaces of the body, including the inside the digestive system.

Papillary adenocarcinoma or just papillary cancer is a rare type of gallbladder adenocarcinoma that deserves special mention. The cells in these gallbladder cancers are arranged in finger-like projections. In general, papillary cancers are less likely to spread into the liver or nearby lymph nodes. They tend to have a better prognosis (outlook) than most other kinds of gallbladder adenocarcinomas.

Other types of cancer can start in the gallbladder, such as adenosquamous carcinomas, squamous cell carcinomas, and carcinosarcomas, but these are very rare.

# **Hyperlinks**

- 1. www.cancer.org/cancer/understanding-cancer/what-is-cancer.html
- 2. <u>www.cancer.org/cancer/understanding-cancer/anatomy-gallery/digestive-</u> system.html

## References

Abou-Alfa GK, Jarnagin W, Lowery M, et al. Liver and bile duct cancer. In: Neiderhuber JE, Armitage JO, Doroshow JH, Kastan MB, Tepper JE, eds. *Abeloff's Clinical Oncology*. 5th ed. Philadelphia, PA. Elsevier; 2014:1373-1395.

National Cancer Institute. Gallbladder Cancer Symptoms, Tests, Prognosis, and Stages (PDQ®)–Patient Version. March 22, 2018. Accessed at www.cancer.gov/types/gallbladder/patient/about-gallbladder-cancer-pdq on June 18, 2018.

Nuzzo G, Clemente G, Cadeddu F, et al. Papillary carcinoma of the gallbladder and anomalous pancreatico-biliary junction. Report of three cases and review of the literature. *Hepatogastroenterology*. 2005;52(64):1034-1038.

Patel T, Borad MJ. Carcinoma of the biliary tree. In: DeVita VT, Lawrence TS, Rosenberg SA, eds. *DeVita, Hellman, and Rosenberg's Cancer: Principles and Practice of Oncology.* 10<sup>th</sup> ed. Philadelphia, PA. Lippincott Williams & Wilkins; 2015:715-735.

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# **Key Statistics for Gallbladder Cancer**

The American Cancer Society's estimates for cancer of the gallbladder and nearby large bile ducts in the United States for 2024 are:

- About 12,350 new cases diagnosed: 5,900 in men and 6,450 in women
- About 4,530 deaths from these cancers: 1,950 in men and 2,580 in women

Of these new cases, about 4 in 10 will be gallbladder cancers.

Gallbladder cancer is not usually found until it has become advanced and causes symptoms. Only about 1 of 5 gallbladder cancers is found in the early stages, when the cancer has not yet spread outside the gallbladder.

The chances of survival for patients with gallbladder cancer depend to a large extent on how advanced it is when it's found. For more on this, see <u>Survival statistics for</u> gallbladder cancer by stage<sup>1</sup>.

Visit the <u>American Cancer Society's Cancer Statistics Center</u><sup>2</sup> for more key statistics.

# Hyperlinks

- 1. <u>www.cancer.org/cancer/types/gallbladder-cancer/detection-diagnosis-</u> staging/survival-rates.html
- 2. cancerstatisticscenter.cancer.org/

#### References

American Cancer Society. Cancer Facts & Figures 2024. Atlanta: American Cancer

Society; 2024.

# What's New in Gallbladder Cancer Research?

looking at how to better use <u>imaging tests</u><sup>2</sup>, like MRI and CT scans, to more accurately identify and diagnose changes in the gallbladder. Identifying proteins that are linked to gallbladder inflammation is another area of research. Early research has suggested that high levels of certain proteins in the blood may help show which people have gallstones and which have cancer. This could even be used as a screening test in the future, but a lot more research is needed.

## **Radiation therapy**

Researchers are looking for better ways to use <u>radiation therapy</u><sup>3</sup>, as well as how to best use it along with other treatments, like <u>surgery</u><sup>4</sup> and chemotherapy. Using certain chemo drugs and radiation together has been found to work better than either treatment alone. This is called **chemoradiation**. The timing of these 2 treatments, as well as learning which drugs work best with radiation to treat gallbladder cancer are of great research interest.

# Chemotherapy

In general, <u>chemo</u><sup>5</sup> has had limited effect against gallbladder cancer, but new drugs and drug combinations are being tested. Studies are also looking for better ways to combine chemo with other treatments, like surgery and radiation.

There's a lot of research interest in combining chemotherapy and <u>targeted therapy</u><sup>6</sup>.

## **Targeted therapy**

Many drugs that target a specific change (mutation) in cancer cells have been FDA approved and are in use today. These include drugs that target mutations, including *NTRK*, *RET*, *BRAF*, *FGFR2*, *IDH1*, *RET*, *KRAS*, and *HER2*. Studies that look at other targetable mutations are ongoing. Another area of active research is looking at how combining targeted therapy with other treatments, such as chemotherapy, can better help kill gallbladder cancer cells. Different drug combinations are being tested for use in treating gallbladder cancer in clinical trials.

# **Hyperlinks**

1. www.cancer.org/cancer/managing-cancer/making-treatment-decisions/clinical-

trials.html

- 2. <u>www.cancer.org/cancer/diagnosis-staging/tests/imaging-tests/imaging-radiology-tests-for-cancer.html</u>
- 3. www.cancer.org/cancer/types/gallbladder-cancer/treating/radiation.html
- 4. www.cancer.org/cancer/types/gallbladder-cancer/treating/surgery.html
- 5. www.cancer.org/cancer/types/gallbladder-cancer/treating/chemotherapy.html
- 6. www.cancer.org/cancer/types/gallbladder-cancer/treating/targeted-therapy.html

## References

Juengpanich S, Li S, Yang T, Xie T, Chen J, Shan Y, Lee J, Lu Z, Chen T, Zhang B, Cao J, Hu J, Yu J, Wang Y, Topatana W, Gu Z, Cai X, Chen M. Pre-activated nanoparticles with persistent luminescence for deep tumor photodynamic therapy in gallbladder cancer. Nat Commun. 2023 Sep 14;14(1):5699. doi: 10.1038/s41467-023-41389-1. PMID: 37709778; PMCID: PMC10502062.

Kam AE, Masood A, Shroff RT. Current and emerging therapies for advanced biliary tract cancers. Lancet Gastroenterol Hepatol. 2021 Nov;6(11):956-969. doi: 10.1016/S2468-1253(21)00171-0. PMID: 34626563.

Montalvo-Jave EE, Rahnemai-Azar AA, Papaconstantinou D, Deloiza ME, Tsilimigras DI, Moris D, Mendoza-Barrera GE, Weber SM, Pawlik TM. Molecular pathways and potential biomarkers in gallbladder cancer: A comprehensive review. Surg Oncol. 2019 Dec;31:83-89. doi: 10.1016/j.suronc.2019.09.006. Epub 2019 Sep 13. PMID: 31541911.

Zhou Y, Yuan K, Yang Y, Ji Z, Zhou D, Ouyang J, Wang Z, Wang F, Liu C, Li Q, Zhang Q, Li Q, Shan X, Zhou J. Gallbladder cancer: current and future treatment options. Front

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