

# Treating Gallbladder Cancer

If you've been diagnosed with gallbladder cancer, your treatment team will discuss your options with you. It's important to weigh the benefits of each treatment option against the possible risks and side effects.

## How is gallbladder cancer treated?

The main types of treatments for gallbladder cancer include:

- [Surgery for Gallbladder Cancer](#)
- [Radiation Therapy for Gallbladder Cancer](#)
- [Chemotherapy for Gallbladder Cancer](#)
- [Targeted Therapy Drugs for Gallbladder Cancer](#)
- [Immunotherapy for Gallbladder Cancer](#)
- [Palliative Therapy for Gallbladder Cancer](#)

## Common treatment approaches

Treatment for gallbladder cancer depends on several factors:

- The stage of the cancer
  - The likely side effects of treatment
  - Your overall health
  - The chances of curing the disease, extending life, or relieving symptoms.
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- [Treatment Options Based on the Extent of the Gallbladder Cancer](#)

## Who treats gallbladder cancer?

Based on your treatment options, you may have different types of doctors on your cancer care team. These may include:

- A **surgeon** or a **surgical oncologist**: a surgeon who specializes in cancer treatment
- A **radiation oncologist**: a doctor who uses radiation to treat cancer
- A **medical oncologist**: a doctor who uses chemotherapy and other medicines to treat cancer
- A **gastroenterologist (GI doctor)**: a doctor who treats diseases of the digestive system

You might have many other specialists on your treatment team as well, including physician assistants, nurse practitioners, nurses, nutrition specialists, social workers, and other health professionals.

- [Health Professionals Associated with Cancer Care](#)

## Making treatment decisions

It's important to discuss all treatment options, including their goals and possible side effects, with your doctors to help make the decision that best fits your needs. You may feel that you need to make a decision quickly, but it's important to give yourself time to absorb the information you have learned. Ask your cancer care team questions.

If time permits, it is often a good idea to seek a second opinion. A second opinion can give you more information and help you feel more confident about the treatment plan you choose.

- [Questions to Ask About Gallbladder Cancer](#)
- [Seeking a Second Opinion](#)

## Thinking about taking part in a clinical trial

Clinical trials are carefully controlled research studies that are done to get a closer look at promising new treatments or procedures. Clinical trials are one way to get state-of-the-art cancer treatment. In some cases they may be the only way to get access to newer treatments. They are also the best way for doctors to learn better methods to treat cancer. Still, they're not right for everyone.

If you would like to learn more about clinical trials that might be right for you, start by

asking your doctor if your clinic or hospital conducts clinical trials.

- [Clinical Trials](#)

## **Considering complementary and alternative methods**

You may hear about alternative or complementary methods that your doctor hasn't mentioned to treat your cancer or relieve symptoms. These methods can include vitamins, herbs, and special diets, or other methods such as acupuncture or massage, to name a few.

Complementary methods refer to treatments that are used along with your regular medical care. Alternative treatments are used instead of a doctor's medical treatment. Although some of these methods might be helpful in relieving symptoms or helping you feel better, many have not been proven to work. Some might even be harmful.

Be sure to talk to your cancer care team about any method you are thinking about using. They can help you learn what is known (or not known) about the method, which can help you make an informed decision.

- [Complementary and Integrative Medicine](#)

## **Help getting through cancer treatment**

People with cancer need support and information, no matter what stage of illness they may be in. Knowing all of your options and finding the resources you need will help you make informed decisions about your care.

Whether you are thinking about treatment, getting treatment, or not being treated at all, you can still get supportive care to help with pain or other symptoms. Communicating with your cancer care team is important so you understand your diagnosis, what treatment is recommended, and ways to maintain or improve your quality of life.

Different types of programs and support services may be helpful, and can be an important part of your care. These might include nursing or social work services, financial aid, nutritional advice, rehab, or spiritual help.

The American Cancer Society also has programs and services – including rides to treatment, lodging, and more – to help you get through treatment. Call our National Cancer Information Center at 1-800-227-2345 and speak with one of our trained specialists.

- [Palliative Care](#)
- [Programs & Services](#)

## Choosing to stop treatment or choosing no treatment at all

For some people, when treatments have been tried and are no longer controlling the cancer, it could be time to weigh the benefits and risks of continuing to try new treatments. Whether or not you continue treatment, there are still things you can do to help maintain or improve your quality of life.

Some people, especially if the cancer is advanced, might not want to be treated at all. There are many reasons you might decide not to get cancer treatment, but it's important to talk to your doctors and you make that decision. Remember that even if you choose not to treat the cancer, you can still get supportive care to help with pain or other symptoms.

- [If Cancer Treatments Stop Working](#)

*The treatment information given here is not official policy of the American Cancer Society and is not intended as medical advice to replace the expertise and judgment of your cancer care team. It is intended to help you and your family make informed decisions, together with your doctor. Your doctor may have reasons for suggesting a treatment plan different from these general treatment options. Don't hesitate to ask your cancer care team any questions you may have about your treatment options.*

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## Surgery for Gallbladder Cancer

- [Laparoscopy to plan for gallbladder cancer surgery](#)
- [Surgery for resectable cancers](#)
- [Surgery for unresectable cancers](#)
- [Possible risks and side effects of surgery](#)
- [More information about Surgery](#)

There are 2 general types of surgery for gallbladder cancer: potentially curative surgery (resectable and unresectable) and palliative surgery.

**Potentially curative surgery** (or resectable) is done when imaging tests or the results of earlier surgeries show there is a good chance that the surgeon can remove all of the cancer can be removed.

- **Resectable** describes cancers doctors believe can be removed completely. This is potentially curative surgery.
- **Unresectable** means doctors think the cancer is too far advanced, it has spread too far, or is in too difficult a place to be entirely removed by surgery.

Only a small percentage of gallbladder cancers are resectable when they are first found.

If potentially curative surgery is being considered, you may want to get a [second opinion](#)<sup>1</sup> or even be referred to a large [cancer center](#)<sup>2</sup>. Nearly all doctors agree that surgery offers the only realistic chance for curing people with gallbladder cancer. But there are differences of opinion about how advanced a gallbladder cancer can be and still be treatable with surgery. The surgery needed for gallbladder cancer is often complex and requires an experienced surgeon. These operations are most often done at major cancer centers.

**Palliative surgery** is done to relieve symptoms pain or treat (or even prevent) complications, such as blockage of the bile ducts. This type of surgery is done when the cancer tumor is too widespread to be removed completely. Palliative surgery is not expected to cure the cancer, but it can sometimes help a person feel better and can help them live longer. More detail is described in [Palliative Therapy for Gallbladder Cancer](#).

## Laparoscopy to plan for gallbladder cancer surgery

Often, when gallbladder cancer is suspected, the surgeon will do a laparoscopy before any other surgery. This is done to help look for any spread of the cancer that could make curative surgery not an option. This procedure is described in [Tests for Gallbladder Cancer](#)<sup>3</sup>. During the laparoscopy, the surgeon can look for areas of cancer that did not show up on imaging tests. If the cancer is resectable, laparoscopy can also help plan the operation to remove it.

Surgery to remove gallbladder cancer can have serious side effects and, depending on how extensive it is, you may need many weeks for recovery. If your cancer is very unlikely to be curable, be sure to carefully weigh the pros and cons of surgery or other treatments that will need a lot of recovery time. It's very important to understand the goal of any surgery for gallbladder cancer, what the possible benefits and risks are, and how the surgery is likely to affect your quality of life.

## Surgery for resectable cancers

### Simple cholecystectomy

The operation to remove the gallbladder is called a cholecystectomy. If only the gallbladder is removed, it's called a simple cholecystectomy. This operation is often done to remove the gallbladder for other reasons such as gallstones, but it's not done if gallbladder cancer is known or suspected (a more extensive operation is needed instead).

Gallbladder cancers are sometimes found by accident after a person has a cholecystectomy for another reason. If the cancer is at a very early stage (T1a) and is thought to have been removed completely, no further surgery may be needed. If there's a chance the cancer may have spread beyond the gallbladder, more extensive surgery may be advised.

A simple cholecystectomy can be done in 2 ways:

**Laparoscopic cholecystectomy:** This is the most common way to remove a gallbladder for a non-cancerous problem that's not cancer. The surgeon puts a laparoscope, a thin, flexible tube with a tiny video camera on the end, into the body through a small cut in the skin of the abdomen (belly). Long surgical tools are put in through other small openings to take out and remove the gallbladder.

Laparoscopic surgery tends to be easier for patients because of the smaller incision size. But this type of operation isn't used if gallbladder cancer is suspected. This surgery gives the surgeon only a limited view of the area around the gallbladder, so there's a greater chance that some cancer might be missed and left behind. Removing the gallbladder this way might also lead to the accidental spread of the cancer as the gallbladder is taken out.

**Open cholecystectomy:** The surgeon takes out the gallbladder through a large incision (cut) in the abdominal wall. This method is sometimes used for gallbladder problems that aren't cancer (such as gallstones), and may lead to the discovery of gallbladder cancer. But if gallbladder cancer is suspected before surgery, doctors prefer to do an extended cholecystectomy.

### Extended (radical) cholecystectomy

Because of the risk that the cancer will come back if just the gallbladder is removed, a more extensive operation, called an extended (or radical) cholecystectomy, is done in

most cases of gallbladder cancer. This can be a complex operation, so make sure your surgeon is experienced with it.

The extent of the surgery depends on where the cancer is and how far it might have spread. At a minimum, an extended cholecystectomy removes:

- The gallbladder
- About an inch or more of liver tissue next to the gallbladder
- All of the lymph nodes in the region

If your surgeon feels it's needed and you are healthy enough, the operation may also include removing one or more of the following:

- A larger part of the liver, ranging from a wedge-shaped section of the liver close to the gallbladder (wedge resection) to a whole lobe of the liver (hepatic lobectomy)
- The common bile duct
- Part or all of the ligament that runs between the liver and the intestines
- Lymph nodes around the pancreas and, around the major nearby blood vessels
- The pancreas
- The duodenum (the first part of the small intestine into which the bile duct drains)
- Any other areas or organs to which cancer has spread

## **Surgery for unresectable cancers**

Surgery is less likely to be done for unresectable cancers, but there are some instances where it might be helpful, this is called palliative surgery. The goal is not to treat the cancer, but to treat the problems it causes. An example is putting a plastic or expandable metal tube (called a stent) inside bile duct that's blocked by the tumor. This can keep the duct open and allow bile to flow through it.

You can find more details on palliative procedures at [Palliative Therapy for Gallbladder Cancer](#).

## **Possible risks and side effects of surgery**

The risks and side effects of surgery depend on how much tissue is removed and your overall general health before the surgery. All surgery carries some risk, including the possibility of bleeding, blood clots, infections, complications from anesthesia, and

pneumonia.

Laparoscopic cholecystectomy is the least invasive operation and tends to have fewer side effects. Most people will have at least some pain from the incisions for a few days after the operation, but this can usually be controlled with medicines. A bigger incision is needed for an open cholecystectomy, so there is usually more pain and a longer recovery time.

Extended cholecystectomy is a major operation that might mean removing parts of several organs. This can have a major significant effect on a person's recovery and health after the surgery. Serious problems soon after surgery can include bile leakage into the abdomen, infections, and liver failure. Because most of the organs removed are involved in digestion, eating and nutrition problems may be a concern after surgery. Your doctor or nurse will discuss the possible side effects with you in more detail before your surgery.

## More information about Surgery

For more general information about surgery as a treatment for cancer, see [Cancer Surgery](#)<sup>4</sup>.

To learn about some of the side effects listed here and how to manage them, see [Managing Cancer-related Side Effects](#)<sup>5</sup>.

## Hyperlinks

1. [www.cancer.org/cancer/managing-cancer/finding-care/seeking-a-second-opinion.html](http://www.cancer.org/cancer/managing-cancer/finding-care/seeking-a-second-opinion.html)
2. [www.cancer.org/cancer/managing-cancer/finding-care/where-to-find-cancer-care.html](http://www.cancer.org/cancer/managing-cancer/finding-care/where-to-find-cancer-care.html)
3. [www.cancer.org/cancer/types/gallbladder-cancer/detection-diagnosis-staging/diagnosis.html](http://www.cancer.org/cancer/types/gallbladder-cancer/detection-diagnosis-staging/diagnosis.html)
4. [www.cancer.org/cancer/managing-cancer/treatment-types/surgery.html](http://www.cancer.org/cancer/managing-cancer/treatment-types/surgery.html)
5. [www.cancer.org/cancer/managing-cancer/side-effects.html](http://www.cancer.org/cancer/managing-cancer/side-effects.html)
6. [www.cancer.org/cancer/types/gallbladder-cancer/references.html](http://www.cancer.org/cancer/types/gallbladder-cancer/references.html)

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[See all references for Gallbladder Cancer](#)

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## Radiation Therapy for Gallbladder Cancer

- [External beam radiation therapy \(EBRT\)](#)
- [Possible side effects of radiation therapy](#)

- [More information about radiation therapy](#)

Radiation therapy uses high-energy rays (such as x-rays) or particles to destroy cancer cells. Doctors aren't sure of the best way to use radiation therapy to treat gallbladder cancer, but it might be used in one of these ways:

- **After surgery has removed the cancer:** Radiation may be used to try to kill any cancer that might have been left after surgery but was too small to see. This is called **adjuvant therapy**.
- **As part of the main therapy for some advanced cancers:** Radiation therapy might be used as a main therapy for some patients whose cancer has not spread widely throughout the body, but can't be removed with surgery. While treatment in this case does not cure the cancer, it may help patients live longer.
- **As palliative therapy:** Radiation therapy is used often to help [relieve symptoms](#) if the cancer is too advanced to be cured. It may be used to help relieve pain or other symptoms by shrinking tumors that block blood vessels or bile ducts, or press on nerves.

## External beam radiation therapy (EBRT)

For gallbladder cancer, a large machine is used to create a beam of x-rays or particles that are aimed at the cancer. This is called external beam radiation therapy (EBRT).

Before your treatments start, the radiation team will take careful measurements to determine the correct angles for aiming the radiation beams and the proper dose of radiation. The treatment is much like getting an x-ray, but the radiation is much stronger. The procedure itself is painless. Each treatment lasts only a few minutes, but the set-up time getting you into place for treatment usually takes longer. Most often, radiation treatments are given 5 days a week for many weeks. These are some of the ways EBRT might be given:

**Three-dimensional conformal radiation therapy (3D-CRT)** Uses special computers to precisely map the location of the tumor(s). Radiation beams are then shaped and aimed at the tumor(s) from several directions, which makes it less likely to damage normal tissues.

**Intensity modulated radiation therapy (IMRT)** This is an advanced form of 3D-CRT. It uses a computer-driven machine that moves around you as it delivers radiation. Along

with shaping the beams and aiming them at the cancer from many angles, the intensity (strength) of the beams can be adjusted to limit the dose reaching the most sensitive normal tissues. This lets doctors deliver an even higher dose to the cancer.

**Chemoradiation:** Chemotherapy (chemo) is given along with EBRT to help it work better. This is the way radiation is most often used for gallbladder cancer. The main drawback of this approach is that the side effects tend to be worse than giving radiation alone. Still, some studies have shown that giving chemoradiation after surgery may help patients live longer, especially those whose cancer had spread to lymph nodes.

## Possible side effects of radiation therapy

Some common side effects of radiation therapy to treat gallbladder cancer include:

- Sunburn-like skin problems, like redness, blisters, and peeling in the area being treated
- Nausea and vomiting
- Diarrhea
- Tiredness (fatigue)
- Liver damage

Side effects from radiation often start a week or 2 into treatment, and usually get better over time once treatment is over. Ask your doctor or nurse what side effects to expect and how you might prevent or relieve them.

## More information about radiation therapy

To learn more about how radiation is used to treat cancer, see [Radiation Therapy](#)<sup>1</sup>.

To learn about some of the side effects listed here and how to manage them, see [Managing Cancer-related Side Effects](#)<sup>2</sup>.

## Hyperlinks

1. [www.cancer.org/cancer/managing-cancer/treatment-types/radiation.html](http://www.cancer.org/cancer/managing-cancer/treatment-types/radiation.html)
2. [www.cancer.org/cancer/managing-cancer/side-effects.html](http://www.cancer.org/cancer/managing-cancer/side-effects.html)
3. [www.cancer.org/cancer/types/gallbladder-cancer/references.html](http://www.cancer.org/cancer/types/gallbladder-cancer/references.html)

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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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[See all references for Gallbladder Cancer](#)

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# Chemotherapy for Gallbladder Cancer

- [Drugs used to treat gallbladder cancer](#)
- [Possible chemo side effects](#)
- [More information about chemotherapy](#)

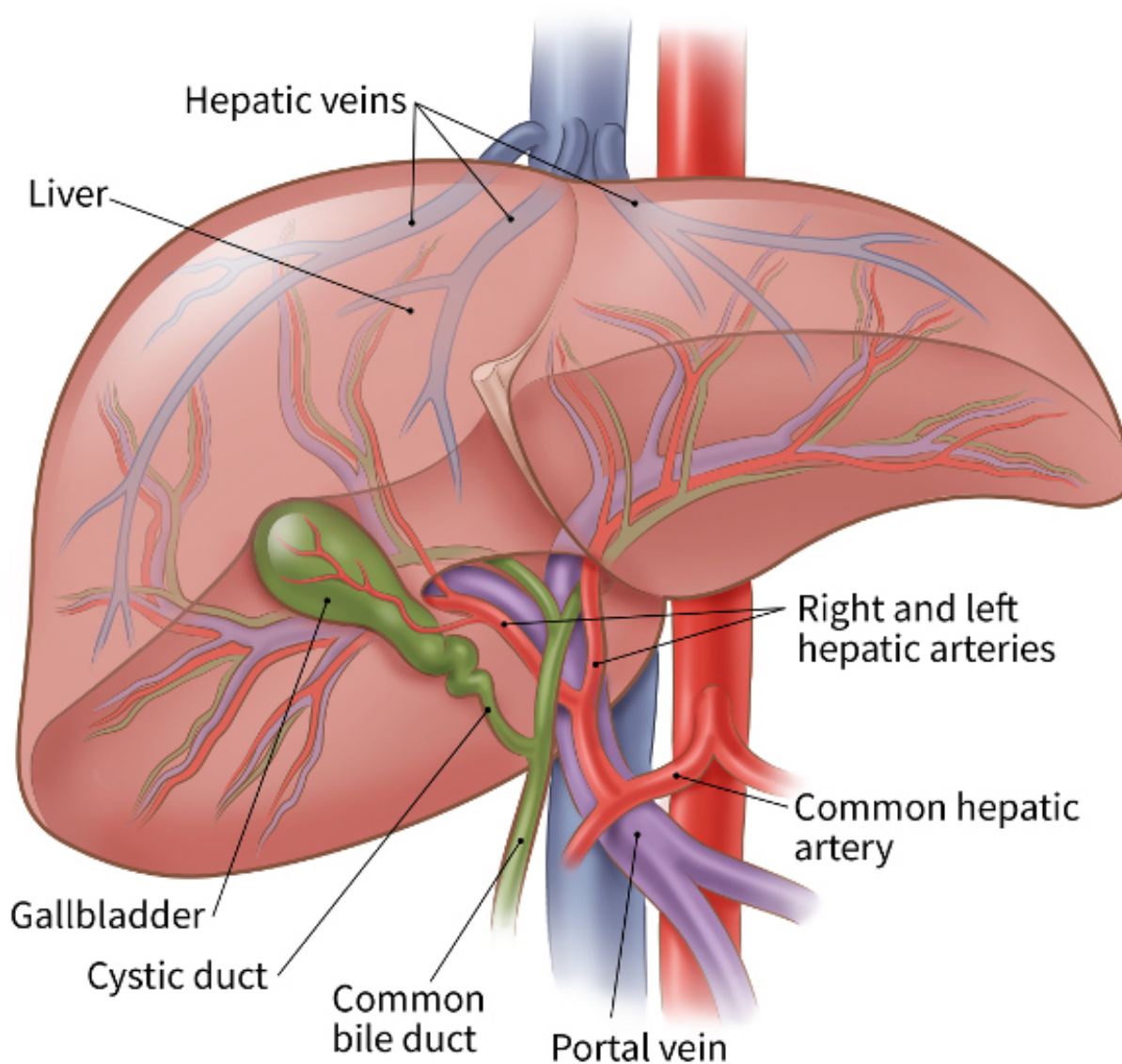
Chemotherapy (chemo) is treatment with cancer-killing drugs that are usually given into a vein (IV) or taken by mouth. These drugs enter the bloodstream and reach all areas of the body, making this treatment useful for cancers that have spread beyond where they started.

Chemo can help some people with gallbladder cancer, but so far it's not clear how useful it is for this type of cancer. Still, chemo might be used in these ways:

- **After surgery to remove the cancer:** Chemo may be given after surgery (often along with radiation therapy) to try to lower the risk that the cancer will come back. This is called **adjuvant treatment**. Doctors aren't yet sure how useful it is in treating gallbladder cancer.
- **As part of the main treatment for some advanced cancers:** Chemo might be used (with or without radiation therapy) for more advanced cancers that cannot be removed or have spread to other parts of the body. Chemo does not cure these cancers, but it might help people live longer.
- **As palliative therapy:** Chemo can help shrink tumors or slow their growth for a time. This can help [relieve symptoms](#) from the cancer, for instance, by shrinking tumors that are pressing on nerves and causing pain.

Doctors give chemo in cycles, with each period of treatment followed by a rest period to allow the body time to recover. Chemo cycles generally last about 3 to 4 weeks. Chemo usually isn't recommended for patients in poor health, but advanced age by itself isn't a barrier to getting chemotherapy.

### **Hepatic artery infusion (HAI)**



Because giving chemo into a vein (IV) isn't always helpful for gallbladder cancer, doctors have studied a different way to give it – right into the main artery going into the liver, called the **hepatic artery**. The hepatic artery also supplies most gallbladder tumors, so putting chemo into this artery means more chemo goes to the tumor. The healthy liver then removes most of the remaining drug before it can reach the rest of the body. This can lessen the chemo side effects. HAI may help some people whose cancer couldn't be removed by surgery live longer, but more research is needed. This technique often requires surgery to put a catheter into the hepatic artery, and many people with gallbladder are not well enough to have this surgery.

## Drugs used to treat gallbladder cancer

The chemo drugs most often used for gallbladder cancer include:

- Gemcitabine (Gemzar<sup>®</sup>)
- Cisplatin (Platinol<sup>®</sup>)
- 5-fluorouracil (5-FU)
- Capecitabine (Xeloda<sup>®</sup>)
- Oxaliplatin (Eloxatin<sup>®</sup>)

In some cases, 2 of these drugs are combined. For example, combining gemcitabine and cisplatin may help people live longer than getting just gemcitabine alone. When chemo is given with radiation, most often 5-FU or capecitabine is used.

## Possible chemo side effects

Chemo drugs attack cells that are dividing quickly, which is why they work against cancer cells. But other cells in the body, such as those in the bone marrow (where new blood cells are made), the lining of the mouth and intestines, and the hair follicles, also divide quickly. These cells can be affected by chemo, which can lead to side effects.

The side effects of chemo depend on the type and dose of drugs given and the length of time they are taken. Side effects can include:

- Hair loss
- Mouth sores
- Loss of appetite
- Nausea and vomiting
- Diarrhea
- Increased chance of infections (from having too few white blood cells)
- Easy bruising or bleeding (from having too few blood platelets)
- Fatigue (from having too few red blood cells)

These side effects are usually short-term and go away after treatment ends. There are often ways to lessen these side effects or even prevent them. For example, drugs can be given to help prevent or reduce nausea and vomiting. Be sure to ask your doctor or nurse about medicines to help reduce side effects.

Along with the possible side effects above, some drugs can have their own specific side effects. For example, cisplatin and oxaliplatin can damage nerves (called *neuropathy*). This can cause numbness, tingling, weakness, and sensitivity to cold or heat, especially



in the hands and feet. This goes away in most patients after treatment stops, but in some cases the effects can be long lasting.

Report any side effects you notice to your medical team so that they can be treated right away. Most side effects can be treated. In some cases, the doses of the chemo drugs may need to be reduced or treatment might need to be delayed or stopped to keep the effects from getting worse.

## More information about chemotherapy

For more general information about how chemotherapy is used to treat cancer, see [Chemotherapy](#)<sup>1</sup>.

To learn about some of the side effects listed here and how to manage them, see [Managing Cancer-related Side Effects](#)<sup>2</sup>.

## Hyperlinks

1. [www.cancer.org/cancer/managing-cancer/treatment-types/chemotherapy.html](http://www.cancer.org/cancer/managing-cancer/treatment-types/chemotherapy.html)
2. [www.cancer.org/cancer/managing-cancer/side-effects.html](http://www.cancer.org/cancer/managing-cancer/side-effects.html)
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[See all references for Gallbladder Cancer](#)

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## Targeted Therapy Drugs for Gallbladder Cancer

As researchers have learned more about the gene and protein changes in cells that cause cancer, they have developed newer drugs to specifically target these changes. Targeted therapy is used to treat a lot of different kinds of cancer. And many of these drugs are being tested to see if they can help treat gallbladder cancer. Right now, the only way to get these drugs is in a [clinical trial](#)<sup>1</sup>.

Targeted therapy drugs work differently from standard chemotherapy (chemo) drugs. They sometimes work when standard chemo drugs don't, and they often have different (and less severe) side effects. They can be used either along with chemo or by themselves.

To learn more about how these drugs are used to treat cancer, see [Targeted Cancer Therapy](#)<sup>2</sup>.

## Hyperlinks

1. [www.cancer.org/cancer/managing-cancer/making-treatment-decisions/clinical-trials.html](http://www.cancer.org/cancer/managing-cancer/making-treatment-decisions/clinical-trials.html)
2. [www.cancer.org/cancer/managing-cancer/treatment-types/targeted-therapy.html](http://www.cancer.org/cancer/managing-cancer/treatment-types/targeted-therapy.html)

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# Immunotherapy for Gallbladder Cancer

- [Immune checkpoint inhibitors](#)

Immunotherapy is the use of medicines to help a person's immune system better recognize and destroy cancer cells. Many types of immunotherapy are being tested in [clinical trials](#)<sup>1</sup>, and some might now be used to treat gallbladder cancer.

## Immune checkpoint inhibitors

An important part of the immune system is its ability to keep itself from attacking the body's normal cells. To do this, it uses “checkpoint” proteins on immune cells, which act like switches that need to be turned on (or off) to start an immune response. Cancer cells sometimes use these checkpoints to avoid being attacked by the immune system.

Drugs that target these checkpoints (called **immune checkpoint inhibitors**) can be used to treat some gallbladder cancers.

### PD-1 inhibitors

**Pembrolizumab (Keytruda)** is a drug that targets PD-1, a checkpoint protein on immune system cells called *T cells*. PD-1 normally helps keep T cells from attacking other cells in the body (including some cancer cells). By blocking PD-1, this drug boosts the immune response against cancer cells. This can shrink some tumors or slow their growth.

Pembrolizumab can be used along with the [chemotherapy](#) drugs gemcitabine and cisplatin to treat gallbladder cancer that can't be removed by surgery or that has spread to other parts of the body.

Pembrolizumab can also be used by itself to treat some advanced gallbladder cancers, typically after other treatments have been tried, if there are no other good treatment options, and if the cancer cells have any of the following:

- A **high level of microsatellite instability (MSI-H)** or a **defect in a mismatch repair gene (dMMR)**
- A **high tumor mutational burden (TMB-H)**, meaning the cells have many gene mutations

Tumor cells can be tested for these changes.

This drug is given as an intravenous (IV) infusion, typically once every 3 or 6 weeks.

### Possible side effects

Side effects of PD-1 inhibitors can include:

- Feeling tired or weak

- Fever
- Cough
- Nausea
- Itching
- Skin rash
- Loss of appetite
- Muscle or joint pain
- Shortness of breath
- Constipation or diarrhea

Other, more serious side effects occur less often. These can include:

**Infusion reactions:** Some people might have an infusion reaction while getting this drug. This is like an allergic reaction, and can include fever, chills, flushing of the face, rash, itchy skin, feeling dizzy, wheezing, and trouble breathing. It's important to tell your doctor or nurse right away if you have any of these symptoms while getting this drug.

**Autoimmune reactions:** This drug works by basically removing one of the safeguards on the body's immune system. Sometimes this causes the immune system to attack other parts of the body, which can cause serious or even life-threatening problems in the lungs, intestines, liver, hormone-making glands, kidneys, skin, or other organs.

It's very important to report any new side effects to your health care team right away. If you do have a serious side effect, treatment may need to be delayed or stopped, and you may be given high doses of corticosteroids to suppress your immune system.

To learn more about how drugs that work on the immune system are used to treat cancer, see [Cancer Immunotherapy](#)<sup>2</sup>.

## Hyperlinks

1. [www.cancer.org/cancer/managing-cancer/making-treatment-decisions/clinical-trials.html](http://www.cancer.org/cancer/managing-cancer/making-treatment-decisions/clinical-trials.html)
2. [www.cancer.org/cancer/managing-cancer/treatment-types/immunotherapy.html](http://www.cancer.org/cancer/managing-cancer/treatment-types/immunotherapy.html)

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## Palliative Therapy for Gallbladder Cancer

- [Biliary stent or biliary catheter](#)
- [Biliary bypass](#)
- [Alcohol injection](#)
- [More information about palliative care](#)

Palliative care is treatment used to help control or reduce symptoms caused by cancer. It's not meant to cure the cancer.

If gallbladder cancer has spread too far to be removed by surgery, doctors may focus on palliative treatments. For instance, [pain medicines](#)<sup>1</sup> and drugs to control nausea or

itching might be used to help you feel better. Radiation and chemotherapy can also be used to help relieve problems caused by the tumor(s). Sometimes, surgery or other treatments are used to help you feel better or to help prevent problems the cancer might cause. Because gallbladder cancers tend to grow and spread quickly, doctors try to use palliative therapies that are less likely to have unpleasant short-term side effects, whenever possible. Your cancer care team will talk with you about the pros and cons of all the treatments that might help you

Here are some examples of procedures that might be used as part of palliative care for gallbladder cancer:

## Biliary stent or biliary catheter

If cancer is blocking a duct that carries bile from the gallbladder or liver to the small intestine, it can lead to [jaundice](#)<sup>2</sup> (yellowing of the skin and eyes) and other problems, like infection and liver failure. A small tube or a catheter can be put into the bile duct or the gallbladder to help the bile drain out.

- A **stent** is a small metal or plastic tube that's put through the blockage in the duct. It keeps the duct open to allow the bile to drain into the small intestine.
- A **catheter** is a thin, flexible tube that's put in through the skin over the abdomen (belly). One end of the tube is put into a bile duct and the other is outside the body. This allows the bile to drain into a bag. The bag can be emptied when needed. If you have a catheter, your doctor or nurse will teach you how to care for it.

These procedures can be done as part of a cholangiography procedure such as ERCP or PTC (see [Tests for Gallbladder Cancer](#)<sup>3</sup>) or, in some cases, during surgery. They're often done to help relieve or prevent symptoms in more advanced cancers, but they can also be done to help relieve jaundice before potentially curative surgery is done. This helps lower the risk of complications from the surgery.

The stent or catheter may need to be replaced every few months to help reduce the risk of infection and gallbladder inflammation. It will also need to be replaced if it becomes clogged.

## Biliary bypass

In people who are healthy enough, a surgery called biliary bypass is another option to allow bile to drain from the liver and gallbladder. There are different biliary bypass operations. Deciding which one to use depends on where the blockage is. In these

procedures, the surgeon creates a bypass around the tumor blocking the bile duct by connecting part of the bile duct before the blockage with a part of the duct that lies past the blockage, or with the intestine itself. For instance:

- A **choledochojejunostomy** joins the common bile duct to the jejunum (the second part of the small intestine).
- A **gastrojejunostomy** (also known as a **gastric bypass**) joins the stomach directly to the jejunum.
- A **hepaticojejunostomy** joins the duct that carries bile from the liver to the jejunum.

Sometimes these operations can be done using special long surgical tools put through several small holes made in the abdomen (belly). This is called **laparoscopic** or **keyhole surgery**.

A biliary bypass can often give longer-lasting relief than a stent, which might need to be cleaned out or replaced. Still, this can be a major operation, so it's important that you're healthy enough to withstand it and that you talk with your doctor about the possible benefits and risks before you have the surgery.

## Alcohol injection

To relieve pain, doctors may deaden the nerves that carry pain signals from the gallbladder and intestinal area to the brain by injecting these nerves with alcohol. This can be done during surgery or through a long, hollow needle that's guided into place with the help of a CT scan.

## More information about palliative care

To learn more about how palliative care can be used to help control or reduce symptoms caused by cancer, see [Palliative Care](#)<sup>4</sup>.

To learn about some of the side effects of cancer or treatment and how to manage them, see [Managing Cancer-related Side Effects](#)<sup>5</sup>.

## Hyperlinks

1. [www.cancer.org/cancer/managing-cancer/side-effects/pain.html](http://www.cancer.org/cancer/managing-cancer/side-effects/pain.html)
2. [www.cancer.org/cancer/types/gallbladder-cancer/detection-diagnosis-staging/signs-and-symptoms.html](http://www.cancer.org/cancer/types/gallbladder-cancer/detection-diagnosis-staging/signs-and-symptoms.html)
3. [www.cancer.org/cancer/types/gallbladder-cancer/detection-diagnosis-staging/diagnosis.html](http://www.cancer.org/cancer/types/gallbladder-cancer/detection-diagnosis-staging/diagnosis.html)
4. [www.cancer.org/cancer/managing-cancer/palliative-care.html](http://www.cancer.org/cancer/managing-cancer/palliative-care.html)
5. [www.cancer.org/cancer/managing-cancer/side-effects.html](http://www.cancer.org/cancer/managing-cancer/side-effects.html)
6. [www.cancer.org/cancer/types/gallbladder-cancer/references.html](http://www.cancer.org/cancer/types/gallbladder-cancer/references.html)

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[See all references for Gallbladder Cancer](#)

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## Treatment Options Based on the Extent



# of the Gallbladder Cancer

- [Resectable gallbladder cancers](#)
- [Gallbladder cancers that might be resectable](#)
- [Unresectable gallbladder cancers](#)
- [Palliative care](#)
- [Recurrent gallbladder cancer](#)

The extent of gallbladder cancer is an important factor in deciding on treatment options. Whenever possible, surgery is the main treatment. It's the best chance of curing the cancer. Because of this, doctors generally divide gallbladder cancers into 2 groups:

- **Resectable cancers** are those that doctors believe can be removed completely by surgery, based on the results of [imaging procedures and other tests](#)<sup>1</sup>.
- **Unresectable cancers** have spread too far or are in too difficult a place to be removed entirely by surgery.

## Resectable gallbladder cancers

In terms of [stages](#)<sup>2</sup>, stage I and II cancers and some stage III cancers that have not spread far beyond the gallbladder may still be treatable with surgery. But it's not an option if the cancer has spread into major blood vessels. Other factors, such as whether a person is healthy enough for surgery, also affect whether surgery is a good option. For instance, if the cancer has only invaded the liver in one area and not too deeply, it may be possible to remove all of the cancer. On the other hand, if the cancer has spread to both sides of the liver, to the lining of the abdominal cavity, to organs far away from the gallbladder, or if it surrounds a major blood vessel, surgery is unlikely to remove it all.

How the cancer is first found can impact treatment options, too. For example, some cancers are found on imaging tests before surgery, while others are found only after the gallbladder has been taken out to treat another condition such as gallstones.

If gallbladder cancer is suspected or diagnosed, it's a good idea to be seen by a surgeon with experience treating this type of cancer. Gallbladder cancer is rare, and not all surgeons are skilled at the more extensive operations needed to treat it.

No matter what stage the cancer is, it's very important that you understand the goal of

treatment before it starts – whether it's to try to cure the cancer or to help [relieve symptoms](#) – as well as the likelihood of the benefits and risks. This can help you make good decisions when looking at your treatment options.

## Gallbladder cancers that might be resectable

These are earlier stage cancers that doctors believe might be removed completely by surgery. Treatment of these cancers depends in part on how they're first found.

### Cancer found after surgery for another gallbladder problem

Some gallbladder cancers are found when the gallbladder is removed to treat gallstones or chronic inflammation. The removed gallbladder is looked at and tested in a lab, at which time the cancer is found. These are often early-stage cancers. If the cancer is confirmed to be only in the inner layers of the gallbladder (T1a), with no signs of spread outside the gallbladder, no further treatment may be needed because there's a very good chance that all of the cancer was removed.

If the cancer is found to be in deeper layers of the gallbladder wall (T1b or greater), other [tests](#)<sup>3</sup> will be done to look for any remaining cancer in the body and to see if it can be removed. These tests may include CT or MRI scans and a staging laparoscopy.

If the cancer is thought to be resectable after these tests, another, more extensive, operation will be done to remove part of the liver, nearby lymph nodes, and possibly parts of the bile duct. (If the initial surgery was a laparoscopic cholecystectomy, the skin around the original incision sites may be removed as well. This is done just in case cancer cells may have gotten on the skin when the gallbladder was removed through these small holes. It's not clear how useful this is. This may be followed by chemotherapy (chemo), with or without radiation, to try to keep the cancer from [coming back](#)<sup>4</sup>, but it's not clear how helpful this is.

If the imaging tests or staging laparoscopy show that the cancer can't be removed, treatment options will be like those used for unresectable cancers.

### Cancer found during surgery for another gallbladder problem

Sometimes, gallbladder cancer is discovered **during surgery** to remove the gallbladder (simple cholecystectomy). In this case, during the operation, the surgeon sees changed areas that look like they may be cancer. Small pieces of these changes (samples) are sent to the lab to be checked quickly while the operation goes on. Cancer cells are seen in the samples.

If the surgeon is experienced in treating gallbladder cancer and believes the cancer can be removed (is resectable), the operation may be changed to a more extensive operation called an **extended cholecystectomy**. (See [Surgery for Gallbladder Cancer](#) for details.)

If the surgeon isn't experienced in treating gallbladder cancer or isn't sure if the cancer is resectable, the operation may be stopped at this point. Other tests such as CT or MRI scans will then be done to look for any remaining cancer in the body and find out whether it's resectable.

If the cancer is thought to be resectable after these tests, a more extensive operation will be done to remove part of the liver, nearby lymph nodes, and possibly parts of the bile duct. This may be followed by chemotherapy, with or without radiation, to try to keep the cancer from coming back, but it's not clear how helpful this is.

If the scans show that the cancer can't be removed, treatment options will be like those used for unresectable cancers.

### **Cancer found on imaging tests or because of symptoms**

Sometimes, gallbladder cancer is suspected because a person is having [symptoms](#)<sup>5</sup> like jaundice . Imaging tests may then show areas suspicious for cancer in or near the gallbladder. Further imaging tests and staging laparoscopy may be done to look for any other suspicious areas. These tests can help the doctor figure out if these areas are cancer and whether it can be removed (is resectable).

If the cancer is thought to be resectable and the patient is healthy enough for surgery, an extended cholecystectomy (removing the gallbladder, part of the liver, nearby lymph nodes, and possibly the bile duct and other nearby organs) is the preferred treatment. If the patient has jaundice before the surgery, a [stent or catheter](#) may be placed in the bile duct first to allow the bile to flow. This can help relieve symptoms over a few days and might make a person healthy enough for surgery. After the surgery, chemotherapy, with or without radiation, may be advised to try to lower the chance that the cancer will come back, but it's not clear how helpful this is.

If the imaging tests or a staging laparoscopy show that cancer is likely but that it can't be removed, a biopsy may be done to confirm the diagnosis. Treatment options will then be like those used for unresectable cancers.

### **Unresectable gallbladder cancers**

If surgery isn't an option (for example, because of the size or location of the cancer or because of a person's general health), the focus of treatment is usually on trying to control the cancer. This can help with symptoms and may help people live longer.

Treatment with [radiation therapy](#) and/or [chemotherapy](#) may be helpful for some people. Another option might be chemo plus the [immunotherapy](#) drug pembrolizumab (Keytruda).

For those who are jaundiced because of bile duct blockage, a [stent or catheter](#) may be placed in the duct to allow the bile to flow. If needed, surgery to bypass the bile duct may be an option if the person is healthy enough. Relieving bile duct blockage is often the first thing done, before starting other treatments such as chemo.

Because these cancers can be very hard to treat, taking part in clinical trials of newer treatments may be an option. This way patients can get the best treatment available now and may also get the treatments that are thought to be even better.

## Palliative care

This is supportive care. It's aimed at preventing and treating symptoms or problems caused by the cancer. Palliative care is used with every type of cancer treatment at every stage of gallbladder cancer. It includes things like medicines to prevent nausea, pain control, and maintaining the flow of bile where a tumor may block it. Palliative care is focused on helping you feel better, it's not used to cure the cancer.

Maintaining your quality of life is an important goal. Please don't hesitate to discuss pain, other symptoms, or any quality-of-life concerns with your cancer care team.

See [Palliative Therapy for Gallbladder Cancer](#) for details on some of these treatments.

## Recurrent gallbladder cancer

Cancer is called recurrent when it comes back after treatment. Recurrence can be local (in or near the same place it started) or distant (it comes back in organs, like the lungs or bone). If the cancer comes back, further treatment depends on where the cancer recurs, the kind of treatment used in the past, and the patient's overall health.

Rarely, the cancer may recur in a small area near where it started, in which case surgery to try to remove it (perhaps followed by chemo and/or radiation therapy) might be an option. But in most cases the recurrent cancer is unresectable and is treated as described above.

Recurrent gallbladder cancer is often very hard to treat, so people might want to consider taking part in a [clinical trial](#)<sup>6</sup> of newer treatments.

## Hyperlinks

1. [www.cancer.org/cancer/diagnosis-staging/tests.html](http://www.cancer.org/cancer/diagnosis-staging/tests.html)
2. [www.cancer.org/cancer/types/gallbladder-cancer/detection-diagnosis-staging/staging.html](http://www.cancer.org/cancer/types/gallbladder-cancer/detection-diagnosis-staging/staging.html)
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