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Treating Pancreatic Cancer

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

How is pancreatic cancer treated?

Depending on the type and stage of the cancer and other factors, treatment options for people with pancreatic cancer can include:

- [Surgery for Pancreatic Cancer](#)
- [Ablation or Embolization Treatments for Pancreatic Cancer](#)
- [Radiation Therapy for Pancreatic Cancer](#)
- [Chemotherapy for Pancreatic Cancer](#)
- [Targeted Therapy for Pancreatic Cancer](#)
- [Immunotherapy for Pancreatic Cancer](#)
- [Pain Control for Pancreatic Cancer](#)

Common treatment approaches

Sometimes, the best option for treating pancreatic cancer might include more than one type of treatment.

- [Treating Pancreatic Cancer, Based on Extent of the Cancer](#)

Who treats pancreatic cancer?

The doctors on your cancer treatment team might include:

- A **surgical oncologist**: a doctor who specializes in treating cancer with surgery
- A **radiation oncologist**: a doctor who specializes in treating cancer with radiation therapy
- A **medical oncologist**: a doctor who specializes in treating cancer with chemotherapy, immunotherapy, and targeted therapy
- A **gastroenterologist**: a doctor who specializes in diagnosing and treating diseases of the digestive system.

Many other specialists may be involved in your care as well, including nurse practitioners, nurses, psychologists, social workers, rehabilitation specialists, and other health professionals.

- [Health Professionals Who Are Part of a Cancer Care Team](#)

Making treatment decisions

It's important to discuss all of your treatment options, including their goals and possible side effects, with your doctors to help make the decision that best fits your needs. Some important things to consider include:

- Your age and expected life span
- Any other serious health conditions you have
- The stage (extent) of your cancer
- Whether or not surgery can remove (resect) the cancer
- The likelihood that treatment will cure the cancer (or help in some other way)
- Your feelings about the possible side effects from treatment

You may feel that you must make a decision quickly, but it's important to give yourself time to absorb the information you have just learned. Ask questions if there is anything you're not sure about.

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 Pancreatic 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.

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, integrative, and alternative methods

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

Complementary and integrative methods are treatments that are used **along with** your regular medical care. **Alternative** treatments are used **instead of** standard medical treatment. Although some complementary and integrative 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 they 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 Cancer Knowledge Hub at 1-800-227-2345 and speak with one of our caring, trained cancer helpline specialists. Or, if you prefer, you can use our chat feature on cancer.org to connect with one of our 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

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.

Surgery for Pancreatic Cancer

Two general types of surgery can be used for pancreatic cancer:

- **Potentially curative surgery** is used when the results of exams and tests suggest that it's possible to remove (resect) all the cancer.
 - **Palliative surgery** may be done if tests show that the cancer is too widespread to be removed completely. This surgery is done to relieve symptoms or to prevent certain complications like a blocked bile duct or intestine, but the goal is not to cure the cancer.
- [Staging laparoscopy](#)
 - [Potentially curative surgery](#)
 - [Palliative surgery](#)
 - [More information about Surgery](#)

Staging laparoscopy

To determine which type of surgery might be best, it's important to know the [stage](#)¹ (extent) of the cancer. But it can be hard to stage pancreatic cancer accurately just using [imaging tests](#)². Sometimes laparoscopy is done first to help determine the extent of the cancer and if it can be resected.

For this procedure, the surgeon makes a few small incisions (cuts) in the abdomen (belly) and inserts long, thin instruments. One of these has a small video camera on the end so the surgeon can see inside the abdomen and look at the pancreas and other organs. [Biopsy](#)³ samples of tumors and other abnormal areas can show how far the cancer has spread.

Potentially curative surgery

Studies have shown that removing only part of a pancreatic cancer doesn't help patients live longer, so potentially curative surgery is only considered if the surgeon thinks all of the cancer can be removed.

This is a very complex surgery, and it can be very hard for patients. It can cause complications and might take weeks or months to recover from fully. If you're thinking about having this type of surgery, it's important to weigh the potential benefits and risks carefully.

Fewer than 1 in 5 pancreatic cancers appear to be confined to the pancreas at the time they are found. Even then, not all of these cancers turn out to be truly resectable (able to be completely removed). Sometimes after the surgeon starts the operation it becomes clear that the cancer has grown too far to be completely taken out. If this happens, the operation may be stopped, or the surgeon might continue with a smaller operation with a goal of relieving or preventing symptoms (see Palliative surgery below). This is because the planned operation would be very unlikely to cure the cancer and could still lead to major side effects. It would also lengthen the recovery time, which could delay other treatments.

Surgery offers the only realistic chance to cure pancreatic cancer, but it doesn't always lead to a cure. Even if all visible cancer is removed, often some cancer cells have already spread to other parts of the body. These cells can grow into new tumors over time, which can be hard to treat.

Whipple procedure (pancreaticoduodenectomy)

This is the most common operation to remove a cancer in the head of the pancreas.

allows the surgeon to view the pancreas and surrounding tissue, as they use the inserted surgical tools to perform the Whipple procedure.

increased risk of infection with certain bacteria. To help with this, doctors recommend that patients get certain vaccines before the surgery.

A distal pancreatectomy is used to treat cancers found in the tail and body of the pancreas. Unfortunately, many of these tumors have already spread by the time they are found, and surgery is not always an option.

Total pancreatectomy

This operation removes the entire pancreas, the gallbladder and common bile duct, part of the stomach and small intestine, and the spleen. This surgery might be an option if the cancer has spread throughout the pancreas but can still be removed. But this type of surgery is used less often than the other operations because there doesn't seem to be a major advantage in removing the whole pancreas, and it can have major side effects.

It's possible to live without a pancreas. But when the entire pancreas is removed, people are left without the cells that make insulin and other hormones that help maintain safe blood sugar levels. These people develop diabetes, which can be hard to manage because they are totally dependent on insulin shots. People who have this surgery also need to take pancreatic enzyme pills to help them digest certain foods.

Before you have this operation, your doctor will recommend that you get certain vaccines because the spleen also will be removed.

Palliative surgery

If the cancer has spread too far to be removed completely, any surgery being considered would be palliative (intended to relieve symptoms, but not to cure the cancer). Because pancreatic cancer can spread quickly, most doctors don't advise major surgery for palliation, especially for people who are in poor health.

Sometimes surgery might be started with the hope it will cure the patient, but once it begins the surgeon discovers this is not possible. In this case, the surgeon might do a less extensive, palliative operation known as **bypass surgery** to help relieve symptoms.

Cancers growing in the head of the pancreas can block the common bile duct as it passes through the pancreas. This can cause pain and digestive problems because bile can't get into the intestine. The bile chemicals will also build up in the body, which can cause jaundice, nausea, vomiting, and other problems. There are two main options to relieve bile duct blockage in this situation:

Biliary stent placement

The most common approach to relieving a blocked bile duct does not involve actual surgery. Instead, a stent (a small tube made of either metal or plastic) is put inside the duct to keep it open. This is usually done through an endoscope (a long, flexible tube) while the patient is sedated. Often this is part of an [endoscopic retrograde cholangiopancreatography \(ERCP\)](#)⁴. The doctor passes the endoscope down the throat and all the way into the small intestine. Through the endoscope, the doctor can then put the stent into the bile duct. The stent can also be put in place through the skin during a percutaneous transhepatic cholangiography (PTC). (See [Tests for Pancreatic Cancer](#)⁵.)

The biliary stent helps keep the bile duct open even if the surrounding cancer presses on it. But after several months, the stent may become clogged and may need to be cleared or replaced.

A bile duct stent can also be put in to help relieve jaundice before curative surgery is done (which would typically be a couple of weeks later). This can help lower the risk of complications from surgery.

Biliary bypass surgery

In people who are healthy enough, another option for relieving a blocked bile duct is surgery to reroute the flow of bile from the common bile duct directly into the small intestine, bypassing the pancreas. This typically requires a large incision (cut) in the abdomen, and it can take weeks to recover from this. Sometimes surgery can be done through several small cuts in the abdomen using special long surgical tools. (This is known as [laparoscopic or keyhole surgery](#)⁶.)

Having a stent placed is often easier and the recovery is much shorter, which is why this is done more often than bypass surgery. But surgery can have some advantages, such as:

- It can often give longer-lasting relief than a stent, which might need to be cleaned out or replaced.
- It might be an option if a stent can't be placed for some reason.
- During surgery, the surgeon may be able to cut some of the nerves around the pancreas or inject them with alcohol. Because pancreatic cancer often causes pain if it reaches these nerves, this procedure may reduce or get rid of any pain caused by the cancer.

Bypass surgery can also be an option when the pancreatic tumor blocks the duodenum

(the first part of the small intestine). During this surgery, the end of the stomach is attached farther down the small intestine to bypass the blockage in the duodenum. This is done to alleviate symptoms of pain and vomiting and allows your stomach to empty into the small intestine.

Bypass surgery can still be a major operation, so it's important that you are healthy enough to tolerate it and that you talk with your doctor about the possible benefits and risks before you have the surgery.

More information about Surgery

For more general information about surgery as a treatment for cancer, see [Cancer Surgery](#)⁷.

To learn about some of the side effects listed here and how to manage them, see [Managing Cancer-related Side Effects](#)⁸.

Hyperlinks

1. www.cancer.org/cancer/types/pancreatic-cancer/detection-diagnosis-staging/staging.html
2. www.cancer.org/cancer/types/pancreatic-cancer/detection-diagnosis-staging/how-diagnosed.html
3. www.cancer.org/cancer/types/pancreatic-cancer/detection-diagnosis-staging/how-diagnosed.html
4. www.cancer.org/cancer/diagnosis-staging/tests/endoscopy/upper-endoscopy.html
5. www.cancer.org/cancer/types/pancreatic-cancer/detection-diagnosis-staging/how-diagnosed.html
6. www.cancer.org/cancer/diagnosis-staging/tests/endoscopy/laparoscopy.html
7. www.cancer.org/cancer/managing-cancer/treatment-types/surgery.html
8. www.cancer.org/cancer/managing-cancer/side-effects.html



Ablation refers to treatments that destroy tumors, usually with extreme heat or cold. They are generally best for tumors no more than about 2 cm (a little less than an inch) across. Typically, with this type of treatment the patient will not need to stay in the hospital. There are different kinds of ablative treatments:

Radiofrequency ablation (RFA) uses high-energy radio waves for treatment. A thin, needle-like probe is put through the skin and into the tumor. Placement of the probe is

combines embolization with [chemotherapy](#). Most often, this is done by using tiny beads that give off a chemotherapy drug during the embolization. TACE can also be done by giving chemotherapy through the catheter directly into the artery, then plugging up the artery.

Radioembolization combines embolization with [radiation therapy](#). In the United States, this is done by injecting small radioactive beads (called **microspheres**) into the hepatic artery. The beads lodge in the blood vessels near the tumor, where they give off small amounts of radiation to the tumor site. Since the radiation travels a very short distance, its effects are limited mainly to the tumor.

Side effects of embolization

Possible [side effects](#)² after embolization include abdominal pain, fever, nausea, infection, and blood clots in nearby blood vessels. Serious complications are not common, but they can happen.

Hyperlinks

1. www.cancer.org/cancer/managing-cancer/side-effects.html
2. www.cancer.org/cancer/managing-cancer/side-effects.html

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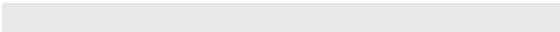
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Radiation Therapy for Pancreatic Cancer

Radiation therapy uses high-energy x-rays (or particles) to kill cancer cells. It can be helpful in treating some pancreatic cancers.



How is radiation therapy given?

1. www.cancer.org/cancer/managing-cancer/treatment-types/radiation/external-beam-radiation-therapy.html
2. www.cancer.org/cancer/managing-cancer/treatment-types/radiation.html
3. www.cancer.org/cancer/managing-cancer/side-effects.html

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Chemotherapy for Pancreatic Cancer

Chemotherapy (chemo) is an anti-cancer drug injected into a vein or taken by mouth. These drugs enter the bloodstream and reach almost all areas of the body, making this

The most common drugs used for chemo include:

- Gemcitabine
- Albumin-bound paclitaxel (Abraxane)
- 5-fluorouracil (5-FU) or capecitabine (an oral 5-FU drug)
- Platinum drugs: cisplatin or oxaliplatin
- Irinotecan

How is chemotherapy given?

Chemo drugs for pancreatic cancer can be given into a vein (IV) or by mouth as a pill. The infusion can be done in a doctor's office, chemotherapy clinic, or in a hospital.

Often, slightly larger and sturdier IV lines are required to give chemo. These are known as [central venous catheters](#)¹ (CVCs), central venous access devices (CVADs), or central lines. They are used to put medicines, blood products, nutrients, or fluids into your blood. They can also be used to take out blood for testing.

Doctors give chemo in cycles, with each period of treatment followed by a rest period to give you time to recover from the effects of the drugs. Cycles are most often 2 or 3 weeks long. The schedule varies depending on the drugs used. For example, with some drugs, the chemo is given only on the first day of the cycle. With others, it is given for a few days in a row, or once a week. Then, at the end of the cycle, the chemo schedule repeats to start the next cycle.

Adjuvant and neoadjuvant chemo are often given for a total of 3 to 6 months, depending on the drugs used. The length of treatment for advanced pancreatic cancer is based on how well it is working and what side effects you have.

Possible side effects

Chemo drugs can cause side effects. These depend on the type and dose of drugs given and how long treatment lasts. Common possible side effects include:

- Nausea and vomiting
- Loss of appetite
- Hair loss
- Mouth sores
- Diarrhea or constipation

- Neuropathy (tingling, numbness, and/or pain of fingertips and toes)
- Hand-foot syndrome (redness and blistering on palms of hand and soles of feet)

Chemo can also affect the blood-forming cells of the bone marrow, which can lead to:

- Increased chance of infection (from a shortage of white blood cells)
- Bleeding or bruising (from a shortage of platelets)
- Fatigue or shortness of breath (from having too few red blood cells)

These side effects usually go away after treatment. There are often ways to lessen these side effects. For example, drugs can be given to help prevent or reduce nausea and vomiting.

Some chemo drugs can cause other side effects. For example:

- Cisplatin can damage the **kidneys**. Doctors try to prevent this by giving the patient lots of intravenous (IV) fluids before and after the drug is given.
- Cisplatin can affect **hearing**. Your doctor may ask if you have any ringing in the ears or hearing loss during treatment.

More information about chemotherapy

For more general information about how chemotherapy is used to treat cancer, see [Chemotherapy](#)².

To learn about some of the side effects listed here and how to manage them, see [Managing Cancer-related Side Effects](#)³.

Hyperlinks

1. www.cancer.org/cancer/managing-cancer/making-treatment-decisions/tubes-lines-ports-catheters.html
2. www.cancer.org/cancer/managing-cancer/treatment-types/chemotherapy.html
3. www.cancer.org/cancer/managing-cancer/side-effects.html

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Targeted Therapy for Pancreatic Cancer

As researchers have learned more about the changes in pancreatic cancer cells that help them grow, they have developed newer drugs to specifically target these changes. These targeted drugs work differently from standard [chemo](#) drugs. Sometimes they work when standard chemo drugs don't, and they often have different side effects. (See [What's New in Pancreatic Cancer Research?](#)¹ for more information.)

- [BRAF inhibitor](#)
- [NTRK inhibitors](#)
- [RET inhibitor](#)
- [KRAS inhibitor](#)
- [EGFR inhibitor](#)
- [PARP inhibitor](#)
- [HER2 inhibitor](#)
- [More information about targeted therapy](#)

BRAF inhibitor

A small number of pancreatic cancers have changes in the *BRAF* gene, specifically the *BRAFV600E* mutation. This gene change can lead to abnormal cell growth and cancer.

Dabrafenib (Tafinlar) and

Common **side effects** of these drugs can include dizziness, fatigue, nausea, vomiting, constipation, weight gain, and diarrhea. Less common but more serious side effects can include abnormal liver tests, heart problems, and confusion.

RET inhibitor

A small number of pancreatic cancers have changes in the *RET* gene. These gene changes can sometimes lead to abnormal cell growth and cancer.

Selpercatinib (Retevmo) is a treatment option for people with unresectable pancreatic cancer, if it is found to have the *RET* gene fusion mutation.

This drug is taken as a capsule, twice daily.

Common side effects of this drug can include abnormal LFT (liver function test) values, low white blood cells and platelets, dry mouth, diarrhea, constipation, high blood pressure, tiredness, and skin rash.

KRAS inhibitor

A small number of pancreatic cancers have changes in the *KRAS* gene, specifically the *KRAS G12C* mutation. This gene change can lead to abnormal cell growth and cancer.

Adagrasib (Krazati) and **sotorasib (Lumakras)** are given as a single agent (alone) and are treatment options for people with unresectable pancreatic cancer, if it is found to have the *KRAS G12C* mutation. These drugs are usually considered only after the pancreatic cancer has not responded well or worsened after receiving another type of treatment.

These drugs are taken as pills, once or twice daily.

Common **side effects** of these drugs include nausea, decreased appetite, vomiting, diarrhea, muscle aches, and changes in liver and kidney test values. Less common but more serious side effects can include changes in laboratory values, including LFTs (liver function tests), white blood cells, red blood cells, and electrolytes (sodium and potassium).

EGFR inhibitor

Erlotinib (Tarceva) is a drug that targets a protein on cancer cells called *EGFR*, which

normally helps the cells grow. In people with advanced pancreatic cancer, this drug can be given along with the chemo drug gemcitabine. Some people may benefit more from this combination than others.

This drug is taken as a pill, once a day.

Common **side effects** of erlotinib include an acne-like rash on the face and neck, diarrhea, loss of appetite, and fatigue. FiP3oy.

HER2 inhibitor

Zenocutuzumab-zbco (Bizengri) is a bispecific antibody that binds to HER2 and HER3 (located on the surface of cancer cells) and prevents a protein called neuregulin 1 (NRG1) from binding to HER3. It can be used to treat metastatic pancreatic adenocarcinoma with a *NRG1* gene fusion mutation in patients who have already received at least one other type of drug treatment.

This drug is given as an intravenous infusion (IV) every 2 weeks.

Common **side effects** of this drug can include nausea, vomiting, abdominal pain, diarrhea, constipation, muscle and joint pain, fatigue, rash, and swelling. Less common but more serious side effects can include changes in blood tests, such as low red cell count, low platelet count, low sodium level, and high liver function test values.

More information about targeted therapy

To learn more about how targeted drugs are used to treat cancer, see [Targeted Cancer Therapy](#)².

To learn about some of the side effects listed here and how to manage them, see [Managing Cancer-related Side Effects](#)³.

Hyperlinks

1. www.cancer.org/cancer/types/pancreatic-cancer/about/new-research.html
2. www.cancer.org/cancer/managing-cancer/treatment-types/targeted-therapy.html
3. www.cancer.org/cancer/managing-cancer/side-effects.html

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Immunotherapy for Pancreatic 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 keep the immune system from attacking them.

Drugs called **checkpoint inhibitors** can be used for people whose pancreatic cancer cells have tested positive for specific gene changes, such as a high level of

serious side effects do occur, treatment may need to be stopped and you may get high doses of corticosteroids to suppress your immune system.

More information about immunotherapy

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

To learn about some of the side effects listed here and how to manage them, see [Managing Cancer-related Side Effects](#)³.

Hyperlinks

1. www.cancer.org/cancer/risk-prevention/genetics/family-cancer-syndromes.html
2. www.cancer.org/cancer/managing-cancer/treatment-types/immunotherapy.html
3. www.cancer.org/cancer/managing-cancer/side-effects.html

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Pain Control for Pancreatic Cancer

blockage), this can usually be done as part of the same operation.

This can also be done as a separate procedure. The doctor might do a nerve block (such as a celiac plexus block) by injecting the nerves near the pancreas with either an anesthetic or a medicine that destroys the nerves.

This can be done with the help of an ultrasound or CT scan either by:

- Passing a needle through the skin or
Using an [endoscope](#)¹

Treating Pancreatic Cancer, Based on Extent of the Cancer

Most of the time, pancreatic cancer is treated based on its resectability – whether the pancreatic tumor has spread to other parts of the body and if it can be completely removed by a surgeon. Other factors, such as your overall health, can also affect treatment options. Talk to your doctor if you have any questions about the treatment plan they recommend.

- [Treating resectable cancer](#)
- [Treating borderline resectable cancer](#)
- [Treating locally advanced \(unresectable\) cancer](#)
- [Treating metastatic \(widespread\) cancer](#)
- [Treating pancreatic cancer that progresses or recurs](#)
- [Treating cancer of the ampulla of Vater](#)

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Chemotherapy, sometimes followed by chemoradiation, is the standard treatment option for locally advanced cancers. This may help some people live longer even if the cancer doesn't shrink. Giving chemo and **radiation therapy** together may work better to shrink the cancer, but this combination has more side effects and can be harder on patients than either treatment alone. Sometimes, **targeted therapy** may be a treatment option if the tumor has a certain genetic mutation.

Other times, **immunotherapy** given alone may also be an option.

Surgery might be done after chemo or chemoradiation, if imaging shows the cancer has become smaller and can be removed completely by surgery. However, this is not a common occurrence.

Treating metastatic (widespread) cancer

Pancreatic cancers often first spread within the abdomen (belly) and to the liver. They can also spread to the lungs, bone, brain, and other organs.

These cancers have spread too much to be removed by surgery. Even when imaging tests show that the spread is only to one other part of the body, it is often assumed that small groups of cancer cells (too small to be seen on imaging tests, known as **micrometastatic disease**) have already reached other organs of the body.

Chemotherapy is typically the main treatment for these cancers. It can sometimes shrink or slow the growth of these cancers and might help people live longer, but it is not expected to cure the cancer.

Gemcitabine is one of the drugs used most often. It can be used alone (especially for people in poor health), or it can be combined with other drugs like albumin-bound paclitaxel (Abraxane), capecitabine (Xeloda), cisplatin, or the **targeted drug** erlotinib (Tarceva).

Another option, especially for people who are otherwise in good health, is a combination of chemo drugs called FOLFIRINOX. This consists of 4 drugs: 5-FU, leucovorin, irinotecan (Camptosar), and oxaliplatin (Eloxatin). This treatment might help people live longer than getting gemcitabine alone, but it can also have more side effects.

In certain cases, **immunotherapy** or **targeted therapy** may be options for people whose cancer cells have certain gene changes.

Other treatments might also be used to help prevent or relieve symptoms from these

cancers. For example, [radiation therapy](#) or some type of [nerve block](#) might be used to help relieve cancer pain, or a [stent](#) might be placed during an endoscopy to help keep the bile duct open.

You may also want to think about taking part in a [clinical trial](#)³ of new drugs or combinations of drugs.

Treating pancreatic cancer that progresses or recurs

If cancer continues to grow during treatment (progresses) or comes back (recurs), your treatment options will depend on:

bile duct. In many patients, ampullary cancer can't be distinguished from pancreatic cancer until surgery has been done.

These cancers often cause early symptoms such as jaundice, so they are often found while they are still resectable. Ampullary cancer is treated very similarly to pancreatic cancer. If the ampullary cancer has not spread and is felt to be resectable, a Whipple procedure is typically done. After surgery, patients are usually treated with adjuvant chemotherapy, followed by chemoradiotherapy. If the ampullary cancer is found to be unresectable at the time of diagnosis, treatment is very similar to that of unresectable pancreatic cancer. Specifically, a combination of the chemo drugs gemcitabine and cisplatin are commonly given.

Hyperlinks

1. www.cancer.org/cancer/types/pancreatic-neuroendocrine-tumor.html
2. www.cancer.org/cancer/types/pancreatic-cancer/detection-diagnosis-staging/how-diagnosed.html
3. www.cancer.org/cancer/managing-cancer/making-treatment-decisions/clinical-trials.html
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