

# Pancreatic Cancer

Information for people with cancer

**This information should not be used to diagnose yourself or in place of a doctor's care.**

Pancreatic cancer starts in the pancreas. The pancreas is a gland in your upper abdomen behind your stomach. It is about 15 cm (6 inches) long. It helps with digesting food and regulating blood sugar levels.

Other names for pancreatic cancer are pancreatic carcinoma and pancreatic neoplasm.

Pancreatic neuroendocrine tumours (PNETS) are an uncommon type of cancer that start in the neuroendocrine cells of the pancreas. This cancer has different symptoms, treatments and causes than pancreatic cancer. For more information on PNETS: [www.cancer.ca/en/cancer-information/cancer-type/neuroendocrine/neuroendocrine-tumours/?region=bc](http://www.cancer.ca/en/cancer-information/cancer-type/neuroendocrine/neuroendocrine-tumours/?region=bc)

## Diagnosis and Staging

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### What are the signs and symptoms of pancreatic cancer?

Pancreatic cancer often does not have any symptoms until the cancer is at an advanced stage. This makes it hard to diagnose. People with pancreatic cancer may have one or more of these symptoms:

- Jaundice (when the whites of your eyes and your skin turn yellow).
- Pain in your upper abdomen and/or upper back.
- Loss of appetite.
- Unexplained weight loss.
- Weakness.
- Diarrhea or constipation.
- Nausea and vomiting.
- Pale, greasy stools that may float in the toilet.
- You develop Type II diabetes.

# Pancreatic Cancer

Information for people with cancer

If you have any signs or symptoms that you are worried about, please talk to your family doctor or nurse practitioner.

## How is pancreatic cancer diagnosed?

Tests that may help diagnose pancreatic cancer include:

- **Physical examination.**
- **Stool examination** to look for hidden (occult) blood.
- **Blood tests for liver function.** Sometimes pancreatic cancer can affect the liver.
- **Abdominal ultrasound:** uses sound waves to produce a picture of the pancreas.
- **CT (computed tomography) scan:** to see the cancer and if it has spread.
- **MRI (magnetic resonance imaging):** to see if the cancer has spread.
- **Biopsy:** a small amount of tissue is removed for examination under a microscope.
- **Fine needle aspiration:** a type of biopsy using a small needle to take out tissue.
- **Laparoscopy:** a laparoscope is a thin tube with a light and camera on it. It is put through a cut made in your abdomen. This procedure is done under general anesthetic.
- **Endoscopic ultrasound:** a doctor puts a small ultrasound probe through your mouth to see the tumour and take a biopsy. You will be sedated (given medication to relax) for this procedure.

For more information on tests used to diagnose cancer, see our Screening and Diagnosis pathfinder: [bccancer.libguides.com/pathfinder-screening](http://bccancer.libguides.com/pathfinder-screening)

# Pancreatic Cancer

Information for people with cancer

## What are the types of pancreatic cancer?

- About 95% (95 out of 100) of all pancreatic cancers are ductal adenocarcinomas. These cancers start in the cells that line the pancreatic duct. The pancreatic duct carries enzymes to the small intestine. Enzymes help digest food.
- Rare types of pancreatic cancer include adenosquamous, undifferentiated small cell carcinomas, cystadenocarcinomas and lymphomas.
- Pancreatic neuroendocrine tumours (PNETS) are an uncommon type of cancer that start in the neuroendocrine cells of the pancreas. This cancer has different symptoms, treatments and causes than pancreatic cancer. For more information on PNETS: [www.cancer.ca/en/cancer-information/cancer-type/neuroendocrine/neuroendocrine-tumours/?region=bc](http://www.cancer.ca/en/cancer-information/cancer-type/neuroendocrine/neuroendocrine-tumours/?region=bc)

## What are the stages of pancreatic cancer?

Staging describes the cancer. Staging is based on how much cancer is in the body, where it was first diagnosed, if the cancer has spread and where it has spread to.

The stage of the cancer is used to plan your treatment.

### Pancreatic cancer staging:

- **Stage 1A:** Cancer is only in the pancreas. Tumour (cancer growth) is 2 cm (about 1 inch) or smaller.
- **Stage 1B:** Cancer is only in the pancreas. Tumour is bigger than 2 cm.
- **Stage 2A:** Tumour has grown outside of the pancreas but not into large blood vessels, lymph nodes or other parts of the body.
- **Stage 2B:** Tumour may have grown outside of the pancreas but not into nearby large blood vessels. Cancer has spread to nearby lymph nodes but not to other parts of the body.

# Pancreatic Cancer

Information for people with cancer

- **Stage 3:** Tumour has grown into nearby large blood vessels. Cancer may or may not have spread to nearby lymph nodes. Cancer has not spread to other parts of the body.
- **Stage 4:** Cancer has spread to other parts of the body (distant metastasis).

For more information on staging, see our About Cancer page:

[bccancer.bc.ca/health-info/types-of-cancer/about-cancer](http://bccancer.bc.ca/health-info/types-of-cancer/about-cancer)

## What are the grades of pancreatic cancer?

The grade of the cancer describes how different the cancer cells look from normal cells and how fast the cancer cells are growing. A pathologist will give the cancer a grade after looking at the cells under a microscope.

Pancreatic cancer can be grade 1, 2, 3 or 4. The lower the number, the lower the grade.

**Low grade:** cells are abnormal but look a lot like normal cells. Low grade cancers usually grow slowly and are less likely to spread.

**High grade:** cells are abnormal and do not look like normal cells. High grade cancers usually grow more quickly and are more likely to spread.

The grade of the cancer helps your health care team predict how the cancer may respond to treatment.

## Treatment

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### What is the treatment for pancreatic cancer?

Cancer treatment may be different for each person. It depends on your particular cancer. Your treatment may be different from what is listed here.

# Pancreatic Cancer

Information for people with cancer

## **Surgery**

- The only chance to cure pancreatic cancer, if the cancer has not spread to other organs.
- Often, pancreatic tumours cannot be removed. But, if the tumour is small and has not spread, removing it with surgery can be done.
- May work well for small ductal adenocarcinoma tumours, cystic tumours, giant cell tumours, osteoclastic tumours, and intraductal papillary tumours.
- Carcinoma of the ampulla of Vater, the distal common bile duct and the duodenum can be treated with surgery.
- If the cancer cannot be removed, you may still have surgery to help with a block in your bile duct or intestine.

## **Radiation therapy** (high energy x-rays that kill or shrink cancer cells)

- An option for some people with cancer only in their pancreas.
- May be used if surgery is not possible.
- For more information about radiation therapy go to:  
[bccancer.bc.ca/our-services/treatments/radiation-therapy](http://bccancer.bc.ca/our-services/treatments/radiation-therapy)

## **Systemic therapy (chemotherapy)**

- Sometimes given after surgery.
- May be offered in cases if surgery is not possible.
- For more information about systemic therapy:  
[bccancer.bc.ca/our-services/treatments/systemic-therapy-\(chemotherapy\)](http://bccancer.bc.ca/our-services/treatments/systemic-therapy-(chemotherapy))

# Pancreatic Cancer

Information for people with cancer

## What is the follow-up after treatment?

- Follow-up testing and appointments are based on your type of cancer.
- After treatment, you may return to the care of your family doctor or specialist for regular follow-up. If you do not have a family doctor, please talk to your BC Cancer health care team.
- The BC Cancer Life after Cancer page has information on issues that cancer survivors may face: [bccancer.bc.ca/lifeaftercancer](https://bccancer.bc.ca/lifeaftercancer)

## More Information

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### What causes pancreatic cancer and who gets it?

We do not know the exact causes of pancreatic cancer.

These are some of the risk factors for this cancer. Not all of these risk factors may cause this cancer, but they may help the cancer start growing.

- This cancer occurs mostly in people between the ages of 60 and 80 years.
- Black people and people with Ashkenazi Jewish heritage are more vulnerable to pancreatic cancer.
- Smoking tobacco may contribute to 20 - 30% (20-30 out of 100) of pancreatic cancers.
- Eating a high-fat diet.
- Being obese.
- Having diabetes. Pancreatic cancer can also cause diabetes.
- Chronic inflammation of the pancreas (pancreatitis), cirrhosis, and prior removal of your gallbladder (cholecystectomy).

# Pancreatic Cancer

Information for people with cancer

- About 5 - 10% (5 - 10 out of 100) of cases of pancreatic cancer may be hereditary. Find out more on our Hereditary Cancer Program page: [www.bccancer.bc.ca/our-services/services/hereditary-cancer](http://www.bccancer.bc.ca/our-services/services/hereditary-cancer)
- Researchers have studied if drinking alcohol, drinking coffee and having acute pancreatitis may cause pancreatic cancer. No clear link has been found.

## Statistics on pancreatic cancer

Pancreatic cancer makes up about 2% (2 out of 100) of all cancers.

- B.C. statistics: [www.bccancer.bc.ca/health-info/disease-system-statistics/statistics-by-cancer-type](http://www.bccancer.bc.ca/health-info/disease-system-statistics/statistics-by-cancer-type)
- Canada statistics: [www.cancer.ca/en/cancer-information/cancer-type/pancreatic/statistics/?region=bc](http://www.cancer.ca/en/cancer-information/cancer-type/pancreatic/statistics/?region=bc)

**Note:** Available statistics do not have information about the inclusion of transgender and gender diverse participants. It is unknown how these statistics apply to transgender and gender diverse people. Patients are advised to speak with their primary care provider or specialists about their individual considerations and recommendations.

## Can I help prevent pancreatic cancer?

Here are some things you can do to lower your risk of pancreatic cancer:

- **Do not smoke:** If you smoke, stop. Also, try to avoid breathing in cigarette smoke. Even if you have been using tobacco for many years, quitting will lower your cancer risk. Support is available to help you successfully quit.
  - Visit the BC Cancer Tobacco and Cancer Prevention page: [www.bccancer.bc.ca/health-info/prevention/tobacco](http://www.bccancer.bc.ca/health-info/prevention/tobacco)
- **Eat healthy, nutritious foods:**
  - Follow Canada's Food Guide: [www.canada.ca/en/health-canada/services/canada-food-guides.html](http://www.canada.ca/en/health-canada/services/canada-food-guides.html)

# Pancreatic Cancer

Information for people with cancer

- Visit the BC Cancer Food Choices and Cancer Prevention page:  
[www.bccancer.bc.ca/health-info/prevention/food-choices](http://www.bccancer.bc.ca/health-info/prevention/food-choices)
- **Stay active:**
  - Visit the BC Cancer Physical Activity and Cancer Prevention page:  
[www.bccancer.bc.ca/health-info/prevention/physical-activity](http://www.bccancer.bc.ca/health-info/prevention/physical-activity)

## Is there screening for pancreatic cancer?

There is no screening program for this cancer.

Some people may be at a higher risk for pancreatic cancer and may need certain tests. These people may include:

- Close relatives of people with pancreatic cancer.
- Carriers of BRCA2 gene mutation
- People with p16 mutation
- People with Lynch Syndrome or a close family member with Lynch Syndrome:  
[www.screeningbc.ca/Hereditary/ForHealthProfessionals/HereditaryColorectalCancer.htm](http://www.screeningbc.ca/Hereditary/ForHealthProfessionals/HereditaryColorectalCancer.htm)
- People who have Peutz-Jeghers Syndrome: [www.bccancer.bc.ca/coping-and-supportsite/Documents/Hereditary%20Cancer%20Program/HCP\\_GuidelinesManuals\\_PeutzJeghersSyndrome.pdf](http://www.bccancer.bc.ca/coping-and-supportsite/Documents/Hereditary%20Cancer%20Program/HCP_GuidelinesManuals_PeutzJeghersSyndrome.pdf)

Talk to your family doctor or nurse practitioner if you think you are at a higher risk for pancreatic cancer.





Provincial Health Services Authority

# Pancreatic Cancer

Information for people with cancer

## Where can I find more information?

- If you have questions about pancreatic cancer, please talk to your health care team.
- Our librarians can help you find the information you need. Visit our Library page: [bccancer.bc.ca/our-services/services/library](http://bccancer.bc.ca/our-services/services/library)
- BC Cancer Library Pancreatic Cancer pathfinder: [bccancer.libguides.com/pathfinder-pancreatic](http://bccancer.libguides.com/pathfinder-pancreatic)
- Managing Your Symptoms: [www.bccancer.bc.ca/health-info/coping-with-cancer/managing-symptoms-side-effects](http://www.bccancer.bc.ca/health-info/coping-with-cancer/managing-symptoms-side-effects)
- Emotional Support: [www.bccancer.bc.ca/health-info/coping-with-cancer/emotional-support](http://www.bccancer.bc.ca/health-info/coping-with-cancer/emotional-support)