



cancer.org | 1.800.227.2345

About Pancreatic Cancer

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

Overview and Types

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

- [What Is Pancreatic Cancer?](#)

Research and Statistics

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

- [Key Statistics for Pancreatic Cancer](#)
- [What's New in Pancreatic Cancer Research?](#)

What Is Pancreatic Cancer?

Pancreatic cancer is a type of cancer that starts in the pancreas. Pancreatic adenocarcinoma is the most common type of pancreatic cancer. Pancreatic neuroendocrine tumors (NETs) are a less common type and are discussed in [Pancreatic Neuroendocrine Tumors](#)¹.

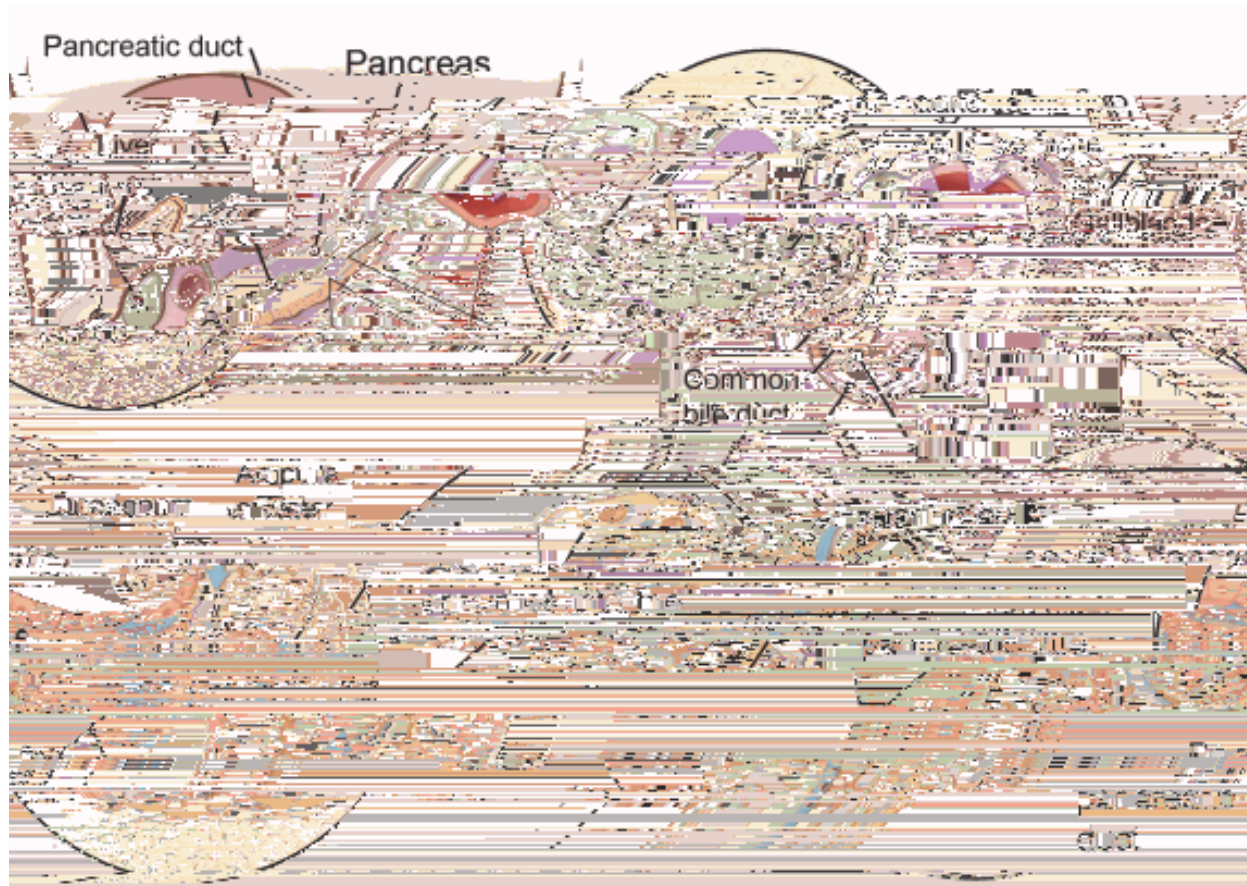
- [Where pancreatic cancer starts](#)
- [Types of pancreatic cancer](#)

Where pancreatic cancer starts

The pancreas

The pancreas is an organ that sits behind the stomach. It's shaped like a fish with a wide head, a tapering body, and a narrow pointed tail. In adults it's about 6 inches (15 centimeters) long and less than 2 inches (5 centimeters) wide.

- The head of the pancreas is on the right side of the abdomen (belly), behind where the stomach meets the duodenum (the first part of the small intestine).
- The body of the pancreas is behind the stomach.
- The tail of the pancreas is on the left side of the abdomen next to the spleen.



[What Is Cancer?](#) ²

Cancer starts when cells in the body begin to grow out of control. Cells in nearly any part of the body can become cancer cells. Learn more here.

[Anatomy Gallery: Digestive System](#)³

Explore our 3D interactive tour of the digestive system.

Pancreatic adenocarcinoma is the most common type of pancreatic cancer. It forms when **exocrine cells** in the pancreas start to grow out of control. Most of the pancreas is made up of exocrine cells, which form the exocrine glands and ducts. The exocrine glands make pancreatic enzymes (proteins that help you digest food) that are released into tiny tubes called ducts, which empty into the pancreatic duct. The pancreatic duct merges with the common bile duct (the duct that carries bile from the liver) and empties into the duodenum (the first part of the small intestine) at the ampulla of Vater.

Endocrine cells make up a smaller percentage of the cells in the pancreas. These cells make hormones like insulin and glucagon, both of which help control blood sugar levels. Pancreatic neuroendocrine tumors start in the endocrine cells. See [Pancreatic Neuroendocrine Tumor](#)⁴ to learn more about this type.

If you are diagnosed with pancreatic cancer, it's recommended to see a pancreatic cancer specialist.

Ampullary cancers often block the bile duct while they're still small and have not spread far. This blockage causes bile to build up in the body, which leads to yellowing of the skin and eyes (jaundice). Because of this, these cancers are usually found earlier than most pancreatic cancers, and they usually have a better prognosis (outlook).

Benign and precancerous growths in the pancreas

Some growths in the pancreas are simply benign (not cancer), while others might become cancer over time if left untreated (known as **precancers**). Because people are getting imaging tests such as [CT scans](#)⁶ more often than in the past (for a number of reasons), these types of pancreatic growths are now being found more often.

Serous cystic neoplasms (SCNs) (also known as **serous cystadenomas**) are tumors that have sacs (cysts) filled with fluid. SCNs are almost always benign, and most don't need to be surgically removed unless they grow large or cause symptoms.

Mucinous cystic pancreatic neoplasms (MCPNs) (also known as **mucinous cystadenomas**) are slow-growing tumors that have cysts filled with a jelly-like substance called **mucin**. These tumors almost always occur in women. While they are not cancer, some of them can progress to cancer over time if not treated, so these tumors are typically removed with surgery.

Intraductal papillary mucinous neoplasms (IPMNs) are cystic tumors that grow in the pancreatic ducts. Like MCPNs, these tumors make mucin, and over time they can become cancer if not treated. Some IPMNs can just be followed closely over time, but some might need to be removed with surgery if they have certain features, such as if they are in the main pancreatic duct.

Solid pseudopapillary neoplasms (SPNs) are rare, slow-growing tumors that typically develop in young women. Even though these tumors tend to grow slowly, they can sometimes spread to other parts of the body if left untreated. SPNs are best treated with surgery. The outlook for people with these tumors is usually very good.

Hyperlinks

1. www.cancer.org/cancer/types/pancreatic-neuroendocrine-tumor.html
2. www.cancer.org/cancer/understanding-cancer/what-is-cancer.html
3. www.cancer.org/cancer/understanding-cancer/anatomy-gallery/digestive-

[system.html](#)

4. www.cancer.org/cancer/types/pancreatic-neuroendocrine-tumor.html
5. www.cancer.org/cancer/types/pancreatic-neuroendocrine-tumor.html
6. www.cancer.org/cancer/diagnosis-staging/tests/imaging-tests/ct-scan-for-cancer.html

References

Mauro LA, Herman JM, Jaffee EM, Laheru DA. Chapter 81: Carcinoma of the pancreas. In: Niederhuber JE, Armitage JO, Dorshow JH, Kastan MB, Tepper JE, eds. *Abeloff's Clinical Oncology*. 5th ed. Philadelphia, Pa. Elsevier: 2014.

Winter JM, Brody JR, Abrams RA, Lewis NL, Yeo CJ. Chapter 49: Cancer of the Pancreas. In: DeVita VT, Lawrence TS, Rosenberg SA, eds. *DeVita, Hellman, and Rosenberg's Cancer: Principles and Practice of Oncology*. 10th ed. Philadelphia, Pa: Lippincott Williams & Wilkins; 2015.

Last Revised: February 5, 2024

Key Statistics for Pancreatic Cancer

Pancreatic cancer accounts for about 3% of all cancers in the United States and about 7% of all cancer deaths.

- [How common is pancreatic cancer?](#)
- [Lifetime risk of pancreatic cancer](#)

How common is pancreatic cancer?

The American Cancer Society's estimates for pancreatic cancer in the United States for 2024 are:

- About 66,440 people (34,530 men and 31,910 women) will be diagnosed with pancreatic cancer.
- About 51,750 people (27,270 men and 24,480 women) will die of pancreatic cancer.

Lifetime risk of pancreatic cancer

The average lifetime risk of pancreatic cancer is about 1 in 56 in men and about 1 in 60 in women. But each person's chances of getting this cancer can be affected by certain [risk factors](#)¹.

For statistics related to survival, see [Pancreatic Cancer Survival Rates by Stage](#)².

Visit our [Cancer Statistics Center](#)³ for more key statistics.

Hyperlinks

1. www.cancer.org/cancer/types/pancreatic-cancer/causes-risks-prevention/risk-factors.html
2. www.cancer.org/cancer/types/pancreatic-cancer/detection-diagnosis-staging/survival-rates.html
3. cancerstatisticscenter.cancer.org

References

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

Lifetime Risk (Percent) of Being Diagnosed with Cancer by Site and Race/Ethnicity: Both Sexes, 18 SEER Areas, 2013-2015 (Table 1.15)
https://seer.cancer.gov/csr/1975_2015/results_merged/topic_lifetime_risk.pdf. Accessed on December 19, 2018.

Noone AM, Howlader N, Krapcho M, Miller D, Brest A, Yu M, Ruhl J, Tatalovich Z, Mariotto A, Lewis DR, Chen HS, Feuer EJ, Cronin KA (eds). SEER Cancer Statistics Review, 1975-2015, National Cancer Institute. Bethesda, MD, https://seer.cancer.gov/csr/1975_2015/ based on November 2017 SEER data

submission, posted to the SEER web site, April 2018. Accessed on December 19, 2018.

Last Revised: February 5, 2024

What's New in Pancreatic Cancer Research?

Research into the causes, diagnosis, and treatment of pancreatic cancer is underway in many medical centers throughout the world.

- [Early detection](#)
- [Treatment](#)

Early detection

Screening tests for pancreatic cancer are recommended for patients with high-risk features. These features are generally the presence of genetic predispositions (i.e., *BRCA*) or with premalignant lesions (i.e., IPMN). However, the majority of pancreatic adenocarcinomas are diagnosed when it's already developed into late-stage cancer. The medical community continues to search for screening tests. Studies include:

- Understanding if certain gene mutations in pancreatic precancerous conditions (benign and precancerous growths in the pancreas) increases risk for cancer
- Understanding if certain proteins found in the blood can be used to find pancreatic cancer early when it is likely to be easier to treat
- Understanding if a blood test can be developed to test people with new-onset diabetes for possible pancreatic cancer

Treatment

A lot of research is focused on finding better treatments for pancreatic cancer. Improving surgery and radiation therapy are major goals, as is determining the best combination of treatments for people with certain [stages](#)¹ of cancer.

Radiation therapy

Some studies are looking at different ways to give [radiation](#)² to treat pancreatic cancer. These include intraoperative radiation therapy (in which a single large dose of radiation is given to the area of the cancer in the operating room at the time of surgery) and proton beam radiation (which uses a special type of radiation that might do less damage to nearby normal cells).

Chemotherapy

Many clinical trials are testing new combinations of [chemotherapy](#)³ drugs for pancreatic cancer. Other newer chemo drugs are also being tested, as are combinations of chemo drugs with newer types of drugs.

Targeted therapies

[Targeted drugs](#)⁴ work differently from standard chemotherapy drugs in that they attack only specific targets on cancer cells (or nearby cells). Targeted therapies may prove to be useful along with, or instead of, current treatments. In general, they seem to have different side effects than traditional chemo drugs. Looking for new targets to attack is an active area of research.

Immunotherapy

[0.2 0.62745 rg 4.5 Ts 2 4p2 8 Tf 0 0.2 0.62745 rg 4.5 Ts \(4\)5j 0 Ts 0 g /F2 12 Tf 0 0 0 rg /GS2364 0 0](#)

clinical trials.

Drugs that target immune system checkpoints: The immune system normally keeps itself from attacking other normal cells in the body by using “checkpoints” – proteins on immune cells that need to be activated (or inactivated) to start an immune response. Cancer cells sometimes find ways to use these checkpoints to avoid being attacked by the immune system. Drugs that target these checkpoints have shown promise in treating some types of cancer. Some of these are now being studied for use in pancreatic cancer.

Individualization of therapy

Some drugs seem to work better if certain types of mutations can be found in the patient’s tumor. For example, olaparib may work better in patients whose tumors have a particular inherited change in the *BRCA* gene. This concept is an area of intense study. Identifying markers that can predict how well a drug will work before it is given is an important area of research in many types of cancer.

Hyperlinks

1. www.cancer.org/cancer/diagnosis-staging/staging.html
2. www.cancer.org/cancer/managing-cancer/treatment-types/radiation.html
3. www.cancer.org/cancer/types/pancreatic-cancer/treating/chemotherapy.html
4. www.cancer.org/cancer/managing-cancer/treatment-types/targeted-therapy.html
5. www.cancer.org/cancer/managing-cancer/treatment-types/immunotherapy.html
6. www.cancer.org/cancer/managing-cancer/treatment-types/immunotherapy/monoclonal-antibodies.html
7. www.cancer.org/cancer/managing-cancer/treatment-types/immunotherapy/cancer-vaccines.html

References

Ansari D, Tingstedt B, Andersson B, Holmquist F, Stureson C, Williamsson C, Sasor A, Borg D, Bauden M, Andersson R. Pancreatic cancer: yesterday, today and tomorrow. *Future Oncol.* 2016 Aug;12(16):1929-46. doi: 10.2217/fon-2016-0010. Epub 2016 Jun 1. PMID: 27246628.

Maemura K1 Mataka Y, Kurahara H, Kawasaki Y, Iino S, Sakoda M et al. Comparison of

proton beam radiotherapy and hyper-fractionated accelerated chemoradiotherapy for locally advanced pancreatic cancer. *Pancreatology*. 2017 Sep - Oct;17(5):833-838. doi: 10.1016/j.pan.2017.07.191. Epub 2017 Jul 27.

Stoffel EM, Brand RE, Goggins M. Pancreatic Cancer: Changing Epidemiology and New Approaches to Risk Assessment, Early Detection, and Prevention. *Gastroenterology*. 2023 Apr;164(5):752-765. doi: 10.1053/j.gastro.2023.02.012. Epub 2023 Feb 18. PMID: 36804602; PMCID: PMC10243302.

Tempero MA. NCCN Guidelines Updates: Pancreatic Cancer. *J Natl Compr Canc Netw*. 2019 May 1;17(5.5):603-605. doi: 10.6004/jnccn.2019.5007. PMID: 31117041.

Last Revised: February 5, 2024

Written by

The American Cancer Society medical and editorial content team
(<https://www.cancer.org/cancer/acs-medical-content-and-news-staff.html>)

Our team is made up of doctors and oncology certified nurses with deep knowledge of cancer care as well as journalists, editors, and translators with extensive experience in medical writing.

American Cancer Society medical information is copyrighted material. For reprint requests, please see our Content Usage Policy (www.cancer.org/about-us/policies/content-usage.html).

cancer.org | 1.800.227.2345