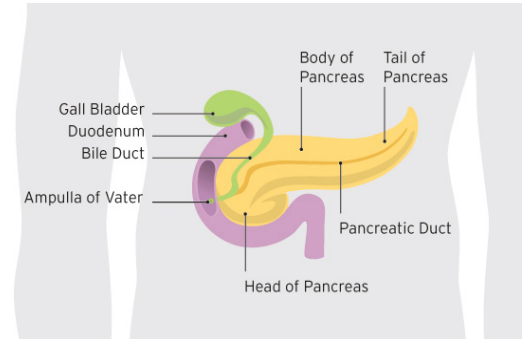




# Pancreatic Cancer\* Facts 2009

## Pancreatic Cancer Statistics

- Pancreatic cancer is the fourth leading cause of cancer death in the United States.<sup>1</sup>
- Pancreatic cancer has the highest mortality rate of all the major cancers. 95% of patients will die within five years of diagnosis and only 5% survive more than five years. 76% of patients with pancreatic cancer die within the first year of diagnosis.<sup>1</sup>
- Since 1975, the five-year survival rate for the disease has only increased from 3% to 5%.<sup>2</sup>
- This year 42,470 Americans will be diagnosed with pancreatic cancer and 35,240 will die from the disease.<sup>1</sup>
- The number of new pancreatic cancer cases and the number of deaths caused by pancreatic cancer are increasing – not decreasing. The expected annual number of new pancreatic cancer cases is projected to increase by 55% by the year 2030.<sup>3</sup>
- The incidence of pancreatic cancer is 50% higher in African Americans than in any other racial group in the United States.<sup>4</sup>



## Few Defined Risk Factors

Only a few risk factors for pancreatic cancer are well defined:<sup>4</sup>

- Family history: A person's risk increases by two- to three- fold when a first-degree relative is diagnosed with pancreatic cancer.
- Smoking: Risk increases by two-fold for smokers versus non-smokers.
- Age: A person's risk of developing pancreatic cancer increases with age.
- Race: A disproportionate number of African Americans are diagnosed with pancreatic cancer.
- Ashkenazi Jewish ancestry: Pancreatic cancer is more common in Ashkenazi Jews than in the general population.
- Pancreatitis: Long-term inflammation of the pancreas (pancreatitis) has been linked to pancreatic cancer. The reason for this association is not clear, but it is greatest in patients with inherited chronic pancreatitis.
- Diabetes: Adult-onset diabetes can be both a symptom of pancreatic cancer and a risk factor for developing the disease.
- Other risk factors under investigation include high-fat diet, obesity and lack of physical activity.

## No Early Detection Methods

No early detection test or screening exam is currently available for pancreatic cancer. The disease is often diagnosed in late stages due to the location of the pancreas in the body and the lack of definitive symptoms. In fact, 52% of patients are diagnosed with advanced (metastatic) disease that has already spread to other organs.<sup>2</sup>

\*This fact sheet focuses on statistics relative to adenocarcinoma of the pancreas, the most common type of pancreatic cancer. There are several forms of pancreatic cancer, including endocrine or islet cell carcinoma. For more information on the types of pancreatic cancer, visit our website at [www.pancan.org/patient/pancreatic.html](http://www.pancan.org/patient/pancreatic.html).



## Vague Symptoms

Many symptoms of pancreatic cancer are vague and could be attributed to many different conditions. Symptoms include pain (usually abdominal or back pain), weight loss, jaundice (yellowing of the skin and eyes), loss of appetite, nausea, changes in stool and diabetes.

## Limited Treatment Options

- Surgery offers the best opportunity for long-term survival. However, only 15% of cases are diagnosed early enough for surgery. Furthermore, 80% of patients who undergo surgery will have a recurrence of the disease within two years. The most common surgical procedure to remove tumors in the pancreas is called the Whipple procedure (pancreaticoduodenectomy). Surgery may be followed by chemotherapy or chemotherapy with radiation.
- Chemotherapy or chemotherapy with radiation is typically offered for patients with disease that cannot be removed by surgery, but has not yet spread to other organs (locally advanced disease). Approximately 26% of patients are diagnosed at this stage, and only 8% of them will survive five years.<sup>2</sup>
- Chemotherapy is typically offered to patients with disease that has spread beyond the pancreas to other organs (metastatic or advanced disease). Approximately 52% of patients are diagnosed with advanced pancreatic cancer that has spread to distant organs or sites and only 1.7% of them will survive five years.<sup>2</sup>
- Only two drugs are currently approved by the FDA to treat pancreatic cancer: gemcitabine (Gemzar®), which was approved by the FDA for pancreatic cancer in 1996, and erlotinib (Tarceva®), which was approved in 2005. While these treatments can be beneficial in treating some patients, they are not considered curative.

## Unique Research Challenges

Some aspects of pancreatic cancer research present unique and significant challenges.

- Historically, pancreatic cancer research has been drastically under-funded. As a result, relatively few researchers are investigating the disease. Less than 2% of the National Cancer Institute's (NCI) budget is allocated to this leading killer.
- Pancreas tissue is very difficult to obtain for research. The pancreas is located deep within the abdomen and not easy to reach for tissue samples. Also, patients often die quickly due to the aggressive nature of the disease and late diagnoses.
- Pancreatic tumors are unique in the types of cells that make up the tumor. Pancreatic tumors include dense fibrotic cells that may contribute to the remarkable resistance of the tumor to chemotherapies.
- Patient participation in clinical trials is often limited because patients are often extremely sick and die quickly of the disease.

<sup>1</sup> American Cancer Society. *Cancer Facts & Figures 2009*. Atlanta: American Cancer Society; 2009.

<sup>2</sup> Jemal A, Siegel R, Ward E, Hao Y, Xu J, Thun MJ. Cancer Statistics, 2009. *CA Cancer J Clin*. 2009.

<sup>3</sup> Smith BD, Smith GL, Hurria A, Hortobagyi GN, Buchholz TA. Future of Cancer Incidence in the United States: Burdens Upon an Aging, Changing Nation. *J Clin Oncol*. 2009.

<sup>4</sup> <http://www.path.jhu.edu/pancreas/PartAfAm.php?area=pa>. Accessed June 2009.