



COLUMBIA UNIVERSITY

*College of Physicians
and Surgeons*

PancreasCenter



The Pancreas Center at
NewYork-Presbyterian Hospital/
Columbia University Medical Center



The **Columbia University Pancreas Center** is founded on the principle that treatment of pancreas disorders demands a commitment to multi-disciplinary collaboration in patient care. In addition to upholding an exacting standard of compassionate, team-oriented clinical medicine at the Center, we deeply value the insights of medical research and continually pursue new avenues of diagnosis and treatment. These are some of the reasons patients come to us from all over the world.

As part of the Columbia University Medical Center, we are fortunate to have some of the best practitioners in every medical discipline. Here, the expertise and skill of pancreatic surgeons, radiologists, oncologists, interventional endoscopists, and oncological gastroenterologists come together to meet the diagnosis, intervention, prevention, and treatment needs of each patient.

The expertise of the practitioners at the Center, together with the benefits gained from being part of a large institution with a track record of excellence in research and patient care, make it possible for us to maintain our position at the forefront of imaging applications, surgical techniques, risk stratification, screening, and early detection of pancreatic disorders.

We are here for you and your family. We look forward to putting our resources to work for you.

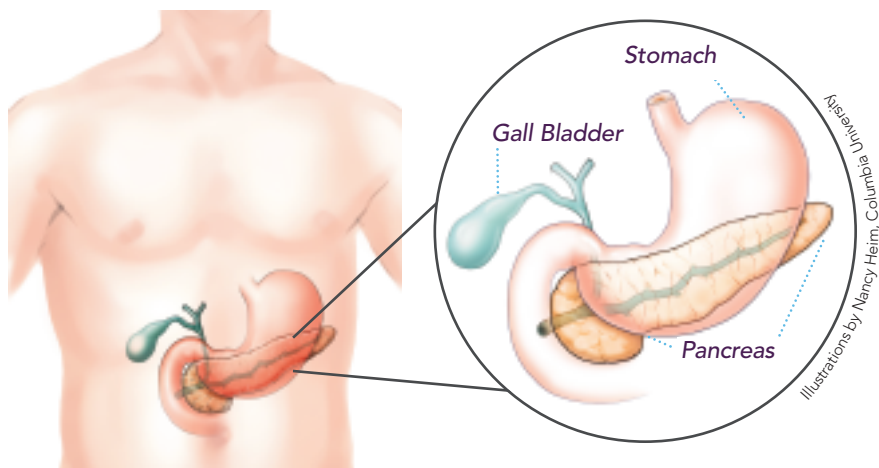
John A. Chabot, MD, FACS
Chairman of the Board and CEO
Pancreas Center
NewYork-Presbyterian Hospital/Columbia University Medical Center

Patient Care at the Center

Our dedication to practitioner communication and partnership in caring for our patients is a source of pride for all of us at the Center. Coming together weekly in clinical meetings, our clinicians of all disciplines address each patient's progress and, together, make decisions about their care. In addition, we convene twice-monthly research meetings to discuss novel approaches to the diagnosis and treatment of patients with disorders of the pancreas. Successfully carrying out such a team approach is essential to achieving coordinated compassionate care that ensures that no symptom goes undiagnosed, no side effect untreated, no family risk unrecognized, and no complication unidentified. It is an objective that few specialized centers are able to fully achieve.



The Pancreas and Its Functions



An elongated gland of 7-8 inches positioned horizontally behind the lower portion of the stomach, the pancreas produces multiple substances essential to converting the food we eat into fuel for the body's cells. The pancreatic exocrine glands produce enzymes that digest food products including proteins, fat, and carbohydrates. These enzymes are

secreted into a system of ducts located in the pancreas. The endocrine *Islets of Langerhans*, usually referred to as islets, are tiny clusters of cells scattered throughout the pancreas. Islet cells produce hormones including insulin that are essential to metabolizing carbohydrates and regulating blood sugar.

Specialists involved in the care of our patients include:

- **Pancreas Surgeons**, who operate every day, are conversant with state-of-the-art surgical techniques, and are expert in specialized operations for pancreatic cancer.
- **Oncological Gastroenterologists**, who specialize in early detection of pancreatic cancer and are expert in the screening, early detection, and molecular genetic aspects of the disease.
- **Interventional Gastroenterologists**, who are skilled in the use of specialized endoscopic diagnostic procedures such as *endoscopic ultrasound (EUS)* and *endoscopic retrograde cholangiopancreatography (ERCP)* to visualize the pancreas and remove tiny tissue samples for biopsy.

Diseases of the Pancreas

Pancreatitis refers to inflammation of the pancreas that occurs when pancreatic enzyme secretions build up and begin to digest the organ itself. It can occur as a temporary, or *acute*, painful attack, or may be a *chronic* condition developing over a period of years. Pancreatitis has a range of possible causes, including gallstones, alcohol use, and severe viral or bacterial infection. After clinical diagnosis of pancreatitis, a gastroenterologist or surgeon resolves the immediate symptoms of the condition by carefully monitoring the patient's clinical progress, and may temporarily administer fluid and nourishment intravenously. A gastroenterologist will then determine and treat the cause through diagnostic tests such as *endoscopic ultrasound (EUS)* or *endoscopic retrograde cholangiopancreatography (ERCP)*, performed by guiding a flexible endoscopic tube with an imaging device through the mouth and into the small bowel. Depending upon the extent and the cause, treatment may require surgery.

Pancreatic cancer is one of the most challenging diseases physicians face today because it responds poorly to treatment and quickly spreads to surrounding organs.

The main risk-factor for cancer of the pancreas is cigarette smoking, which also appears to accelerate tumor growth. A family history of pancreatic cancer and hereditary cancer syndromes also greatly increase risk, contributing to at least 15% of cases. Most individuals diagnosed with the disease are between the ages of 60-80, although individuals with an inherited predisposition are usually diagnosed much younger.

- **Radiologists**, who perform imaging tests such as MRI and CT to diagnose and define the extent of disorders.
- **Oncologists**, who administer systemic chemotherapy, such as GTX (gemcitabine, taxatere, xeloda).
- **Pathologists**, who analyze tissue samples microscopically for diagnostic purposes.
- **Nurse Practitioners**, who help guide the patient through diagnosis, treatment, pain management, rehabilitation, and enrollment in clinical trials.
- **Pain Management Specialists**, who administer medical, behavioral, and alternative medicine treatments.

Diagnosis and Treatment of Pancreatic Cancer

Early detection can profoundly impact an individual's chances of surviving pancreatic cancer. The center has extensive advanced endoscopic and radiological expertise to visualize and biopsy pancreatic tissues, as well as one of only a few risk-assessment programs that provide safe and accurate screening strategies to identify a patient's degree of risk for developing the disease.



Whipple Procedure

Pioneered at Columbia, the Whipple procedure is the most common pancreatic cancer operation. A portion of the pancreas is removed, together with the lower portion of the stomach, the duodenum (first part of the small intestine), the gallbladder, and part of the common bile duct. The remaining bile duct and pancreas are attached to the small intestine.

Our specialized team works together to obtain a patient's diagnosis and rapidly commence treatment, providing immediate access to specialists at Columbia. The result is optimal clinical outcomes.

Surgery to remove all cancerous tissue is the only effective treatment when the cancer has not spread beyond the pancreas. Our surgeons conduct specialized operations to remove all traces of cancer tissue. Their surgical mortality rate of less than 1% is far superior to the rate of 4%-15% nationwide. We are able to significantly improve our patients' clinical outcome, shrinking tumors before surgery using GTX (gemcitabine, taxatere, xeloda), a combination chemotherapy regimen developed by Columbia investigators. Chemotherapy and radiation therapy may be administered either before or after surgery to prevent recurrence, or when cancer has spread and cannot be removed by surgery.

Pain management can be essential for patients undergoing treatment for pancreatic disorders because the pancreas is surrounded by several organs and by a network of nerves. The Pain Management Center at Columbia University works closely with the Pancreas Center to help patients with medical aspects of their pain control.

Illustrations by Nancy Heim,
Columbia University

A Pioneering Risk Stratification Program

Risk analysis can help those living with a family history of cancer or with other risk factors for pancreatic cancer to learn their risk of getting the disease. We take into consideration all evidence known to contribute to an individual's risk of developing the disease, a process known as *risk stratification*. We analyze family medical history, provide genetic counseling and testing as needed, and image the pancreas with sensitive instruments to detect pre-cancerous abnormalities or small cancers that are surgically curable. If a patient learns there is significant genetic risk, we provide guidance and recommend an ongoing testing regimen so they may ultimately avoid the disease.

To learn more about the center's risk screening program for you or a family member, please call 212-305-9337 for the Muzzi Mirza Pancreatic Cancer Prevention and Genetics Program.



Faculty and Staff

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Contact Us:

For further information, please call 212-305-9467.

To learn more about the Center, its clinical trials, and diseases of the pancreas in general, please go to: www.pancreasmd.org.

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