

Facing Pancreatic Surgery?

Learn about minimally invasive
da Vinci® Surgery

The Condition:

Pancreatitis/Pancreatic Cancer

The pancreas is an organ that produces enzymes and hormones to help your body digest food and regulate blood sugar. The pancreas is located behind your stomach and is about 6 inches long.

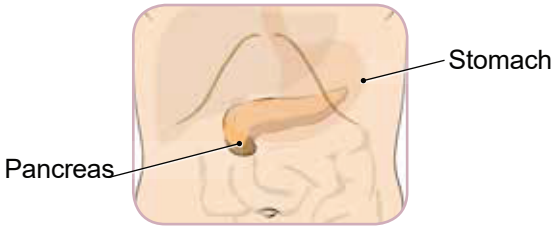
Pancreatitis is a disease in which the pancreas becomes inflamed. It can be acute or chronic.

Acute pancreatitis occurs suddenly and usually goes away in a few days with treatment. Symptoms may include: pain, swelling or tenderness in the upper abdomen, nausea, vomiting, back pain, and fever.

Chronic pancreatitis occurs over many years and can lead to permanent damage. Symptoms may include: upper abdominal pain, nausea, vomiting, diarrhea, and oily stool.

Pancreatitis often develops between ages 30 and 40. The most common causes are: gallstones, heavy alcohol use, cystic fibrosis, high triglycerides, certain medicines, and structural problems in the pancreas.

Pancreatic cancer is hard to detect in its initial stages since it often does not cause early symptoms. If symptoms are present, they may include: yellowing skin or eyes, pain in the abdomen and back, loss of appetite, depression and blood clots. Some risk factors include: smoking, obesity, diabetes, chronic pancreatitis, and certain hereditary disorders.



Treatment/Surgery

Your doctor will suggest a treatment plan based on the severity or stage of the disease. If surgery is recommended, the type of surgery (listed below) will depend on how much of your pancreas is affected.

When cancer is suspected, your surgeon will remove your pancreas and send it to a lab to be tested for cancer.

Distal Pancreatectomy: If the bottom half or tail of the pancreas is affected and needs to be removed, this is known as a distal pancreatectomy.

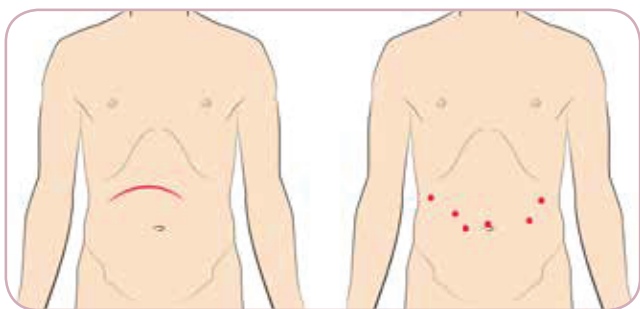
Whipple Pancreatectomy: During the Whipple procedure, the head of the pancreas, most of the duodenum (part of small intestine), gallbladder, part of bile duct, and nearby lymph nodes are removed.

Central Pancreatectomy: Performed when there is a benign (non-cancerous) tumor in what is called the neck of the pancreas.

Total Pancreatectomy: A total pancreatectomy is an operation to remove your entire pancreas.

Surgery on the pancreas can be performed using traditional open surgery (through one large incision) or minimally invasive surgery.

Minimally invasive surgery (laparoscopy) is done through a few small incisions using long, thin surgical instruments and a tiny camera. The camera takes images inside your body. These images are sent to a video monitor in the operating room to guide surgeons as they operate.



Open Surgery
Incision

da Vinci Surgery &
Laparoscopy Incisions

da Vinci Surgery : A Minimally Invasive Surgical Option

da Vinci Pancreatectomy (distal and whipple procedures) is another minimally invasive option for many patients facing pancreatic surgery.

The *da Vinci* System features a magnified 3D HD vision system and special wristed instruments that bend and rotate far greater than the human wrist. *da Vinci* enables your doctor to operate with enhanced vision, precision, and control.

As a result of this technology, *da Vinci* Pancreatectomy offers the following potential benefits when compared to open surgery:

- › Lower rate of complications
- › Shorter hospital stay
- › Greater chance of saving the spleen (benign cases)
- › Less risk of follow-up surgery

da Vinci Pancreatectomy offers the following potential benefits compared to traditional laparoscopic surgery:

- › More precise removal of cancerous tissue
- › Less risk of converting to open surgery
- › Greater chance of saving the spleen (benign cases)
- › Reduced risk of blood loss
- › Shorter hospital stay

Risks & Considerations Related to Pancreatic Surgery:

- Inflamed pancreas
- Leaking of pancreatic juices
- Narrowing/leaking at the spot where the pancreas is connected to the bowel
- Injury to spleen or bowel
- Insufficient pancreatic function (for example, diabetes)