

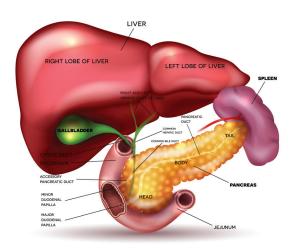
The pancreas is an important organ which produces digestive enzymes and hormones to control our blood sugar levels. However, sometimes the pancreas may develop diseases that require part of it or even the whole pancreas to be removed - which is also known as a pancreas resection.

#### Who needs a pancreas resection?

Patients may require a pancreas resection for various reasons, including:

- Pancreas cancer
- Non-cancerous growths in the pancreas
- Diseases in the pancreas that may potentially become a cancer
- Chronic pancreatitis

A pancreas resection may require removing the head, body/tail or whole pancreas, creating a joint between the pancreas and small intestine. Your surgeon will explain the type of pancreas resection you require.



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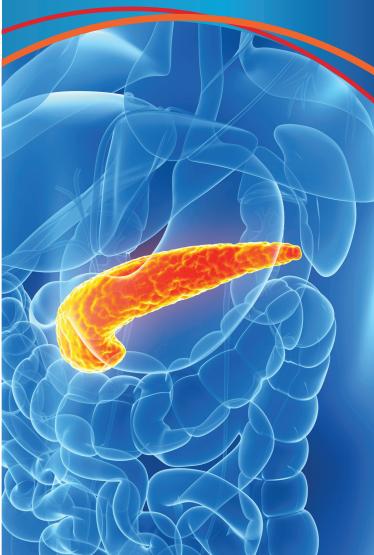
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# **Pancreas Resection**



## What is usually done before a pancreas resection?

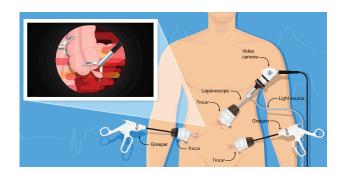
Before patients undergo a pancreas resection, there are a few conditions which he/she needs to fulfil:

- The patient must be medically fit to undergo a pancreas surgery.
- The tumour or growth must not invade vital structures around the pancreas.
- For patients with pancreas cancer, the cancer cells must not have spread to other parts of the body.

The surgeon may perform additional tests to ensure that it is safe for you to undergo a liver resection, and to minimise the risks associated with the surgery. You may also be required to see an anaesthetist for a presurgery check to ensure that you are medically fit for the surgery. Some patients may be required to attend the Management and Innovation of Longevity for Elderly Surgical Patients (MILES) programme for pre-habilitation and nutrition optimisation to promote faster recovery after the surgery. If the surgery requires potential removal of the spleen with the pancreas, you will also need to be vaccinated at least two weeks before the surgery.

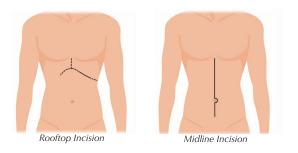
#### Laparoscopic Pancreas Resection

A laparoscopic pancreas resection involves creating various small incisions in the abdomen, and using specialised surgical tools and a laparoscopic camera, to remove the portion of the pancreas with disease. A slightly larger incision is usually made at the end of the surgery to remove the resected pancreas and to facilitate the completion of the surgery. A laparoscopic pancreas resection is not suitable for all patients, and your surgeon will discuss this in detail with you.



### **Open Pancreas Resection**

An open pancreas resection is the current standard for performing pancreatic surgeries. The surgeon will make an incision over the upper half of your abdomen (rooftop incision) to perform the surgery. A laparoscopic surgery may also be converted to an open procedure (with a midline incision) if your surgeon deems it too risky to continue.



#### **Associated Risks**

As with any form of surgery, there are some risks associated with a pancreas resection. Apart from the common risks associated with surgery under general anaesthesia, others include:

- Bleeding
- Infection
- Injury to surrounding structures
- Leaking from reconstructed joints
- Leaking of pancreas enzymes from the pancreas
- New onset of diabetes or worsening of existing diabetes
- Insufficient pancreas enzymes after the resection

Before the surgery, your surgeon will explain the specific risks relevant to the type of pancreas resection that you will undergo.

#### **Before Surgery**

• Do not consume any food six hours before the surgery or the surgery may be postponed. However, you may have a sip of water or a carbohydrate drink two hours before the surgery.

- Arrive on time for registration to prevent any delays.
- Notify your surgeon if you are suffering from cough, sore throat or a flu (your operation may have to be rescheduled).
- Bring any personal items that you may need for your hospital stay.
- Your surgeon or anaesthetist will advise you on which medication you can take on the day of your surgery.

## **After Surgery**

You may be admitted to the Intensive Care Unit (ICU) or Surgical High Dependency Unit (SHD) after the operation for monitoring and recovery. There will be one to two tubes or drains attached to your body after the operation for monitoring. These will gradually be removed. Regular blood tests will be performed to ensure that you are recovering well after the operation, and fluid from the abdominal drains will be sent to see if there are leaking pancreatic enzymes. Oral intake will gradually be increased as you recover in the ward. In rare occasions, patients may be discharged with the drains and equipped with instructions on how to manage it, and have the drains removed during the clinic follow-ups.

#### Recovery

After you are discharged from the hospital, you will be given a period of hospitalisation leave to rest and recuperate at home. Here are some pointers to take note of:

- Slowly increase your activity level and exercise by walking every hour.
- Avoid heavy lifting.
- Ensure you drink enough water and have regular meals.
- If you experience abdominal pain, fever, jaundice, or issues with your wound, please contact us at 6772 5083 during office hours, or visit the NUH Emergency Department after office hours.