

Whipple Procedure

What is a Whipple procedure?

The Whipple Procedure (*pancreatoduodenectomy*) encompasses several surgical procedures in the same operation:

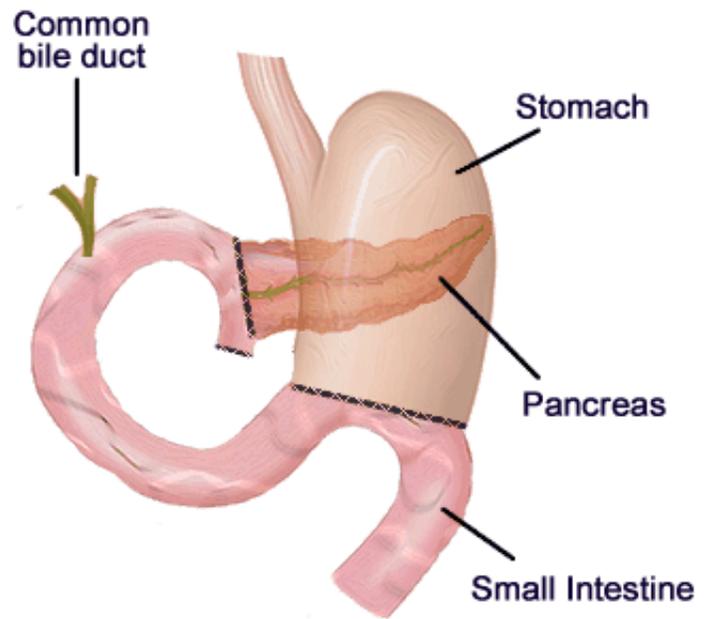
- the gallbladder is removed
- the head of the pancreas is removed
- a section of the bile duct is removed
- a section of the small intestine is removed
- a part of the stomach may also be removed

After this is completed, the surgeon must reconstruct what remains:

- the stomach, or remaining part thereof, is attached to the small intestine
- the tail of the pancreas is attached to the end of the small intestine
- the shortened remainder of the bile duct is attached to the small intestine

As you can probably imagine, this is a complex operation that may last many hours. It involves many critical organs that all need to work together.

The Whipple procedure has been used increasingly over the years in treating pain and other complications of chronic pancreatitis. Best known for its use in the treatment of pancreatic cancer, the procedure has a success rate of 70-80 percent in treating chronic pancreatitis.



Why is the Whipple procedure performed?

The Whipple procedure could be performed for any of the following reasons:

- chronic pancreatitis
- pancreatic cancer (in the head of the pancreas)
- cancer of the small intestine
- cholangiocarcinoma – (a cancer in the bile duct)

Malignancies in the pancreas, bile duct, or the duodenum, are frequently seen together. This is because they form a complex connection of ducts that send enzymes into the duodenum in order to completely digest food. The Whipple procedure takes into account the involvement of these organs, and the surgeon makes decisions based on the spread of the malignancy.

Complications of the Whipple procedure

Complications from this procedure may include:

- delayed gastric emptying
- infection at the surgical site
- pancreatic leak at the connection site
- bile leak where the bile duct is shortened
- bleeding

When used in the treatment of cancer, the Whipple operation has a complication rate of 30 - 40 percent and a mortality rate of less than two percent. The complication rate may be similar or lower in its treatment for chronic pancreatitis depending on the severity of the pancreatitis and the medical condition of the patient.

Recovery from the Whipple Procedure

This is a complex operation that will require hospitalization for one to two weeks with the first post-surgery night spent in the intensive care unit before being transferred to the surgical floor. Patients usually remain fatigued for about two months after this operation. Follow-up with the surgeon normally occurs on a weekly basis. Radiation and chemotherapy are frequently administered in addition to any primary post-surgical care.

During this time you will be monitored carefully for any signs of complications. Your food intake will also be carefully controlled.

Things to expect post-surgery are:

- You will not have anything to eat for the first few days so your reconstructed digestive system can heal.

- You will awaken with a nasal tube in your stomach to be used to remove any contents, such as saliva.
- You will be asked to begin walking the first day after your surgery. It will be a very short walk, but you will be encouraged to increase the length of this walk every day.
- You will have a catheter inserted into your bladder to remove urine.
- You will probably not have a bowel movement for several days after this operation.
- Drainage tubes at the site of the surgical incision will be used to remove fluid from the site.

Pain management will be effected through the use of a pain pump immediately after the operation, which will be replaced by pills when you have begun to consume solid food.

Going home after having the Whipple procedure

When you are finally released from the hospital, you will still have a lot of healing to do. In order to accomplish this, **you will be given a strict set of instructions**, some of which are:

- Never remove any bandages for at least one to two weeks, and only after consulting with our staff.
- Showers only, and only with mild soap and water. Wash gently around your incision.
- Keep your incision covered and out of sunlight.

You may have trouble sleeping, but that should become easier as you heal.

EATING AFTER SURGERY

Post-surgery eating instructions include:

- eat many small meals at first
- avoid fatty foods
- try a variety of foods to see what your body tolerates
- food supplements like Ensure® may be used
- drink plenty of fluids

Learning to eat after your operation is about trial and error. You will eventually find a pattern and food that suits you. You may be given pancreatic enzyme replacements that you will need to take with food. Follow the instructions for this prescription carefully.

ACTIVITY AFTER SURGERY

Post-surgery activity instructions include:

- Take it easy while you are healing; don't be in a hurry to resume activities that you did before the operation.
- Don't lift anything over a few pounds for at least six weeks.
- If you are used to a certain exercise routine, *start over*; don't resume that same

workout following your surgery

Any complications resulting from not following any of the above instructions will make your recovery time much longer.

Call your doctor if...

There are some signs that you should not ignore. Call your doctor if you experience any of these issues:

- fever over 100 degrees
- pain that continues to worsen; your pain should steadily lessen as you heal
- bowel movements that stop for three days
- bowel movements that are frequent, severe diarrhea, oily stools
- redness around your incision that gets worse, or spreads
- a sudden increase in fluid, or blood coming out of a drainage tube

It will take some time to regain your old stamina. Don't get discouraged.

25 Courtenay Dr., Ashley River Tower, Charleston, S.C. 29425

Reception: (843) 792-6999 • Scheduling: (843) 792-6982 • Clinical Trials: (843) 876-4303

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