What Is A Whipple Procedure?
This is sometimes called a pancreaticoduodenectomy. The operation consists of removing the gallbladder, part of the bile duct, the duodenum, the head of the pancreas and sometimes the lower portion of the stomach. Following the removal of these organs, the remaining portions must be reattached for proper digestion. The surgery generally takes 4 - 6 hours. The Whipple Procedure is considered, by any standard, a major surgical procedure.

What are the indications for a Whipple Procedure?
The most common indications include:
- Cancer of the head of the pancreas
- Cancer of the duodenum
- Cholangiocarcinoma (cancer of the bile duct)
- Cancer of the ampulla – an area where the bile and pancreatic duct enter into the duodenum.
- The whipple operation may also sometimes be performed for patients with benign (non-cancerous) disorders such as chronic pancreatitis and benign tumors of the head of the pancreas.

What happens before surgery?
After a workup ordered by your primary doctor (PCP) and possibly a gastroenterologist, you will be referred for a surgical consult. You will be instructed to bring any copies of CT scans or other
images with you. A thorough history and physical will be obtained. Your surgeon will discuss with you your diagnosis and if surgery is indicated for you. You may need to undergo further testing before a decision can be made. If being treated for a cancer, you will also be referred to an oncologist.

If surgery is scheduled, you will undergo preoperative testing including lab work, chest x-ray and EKG. You may need clearance from your primary doctor or cardiologist beforehand. You will be given an assigned time to present to the hospital and surgical time once the hospital has scheduled your surgery.

**What should I expect while hospitalized after surgery?**
Most patients go to the surgical intensive care unit initially after surgery for close observation. When you are stable you will transfer to a regular hospital room. The length of hospital stay varies but most patients are hospitalized for 1-2 weeks after their surgery.

You may have several tubes in place after the surgery including:

- **Nasogastric Tube (NG):**
  After you go to sleep in the operating room a plastic tube is inserted through your nose and down your throat into your stomach. It suctions secretions out of your stomach until your stomach and bowel begin to function again. The NG tube usually stays in 1-2 days. You cannot eat or drink anything with this tube in place, but you may be allowed some ice chips.

- **Gastrostomy Tube (G-tube):**
  A G-tube is sometimes used instead of the NG tube. During surgery the surgeon places it into your stomach through a small opening on the left side of your abdomen. It drains your stomach contents until your stomach starts to work in about 5 - 7 days after surgery. You will go home with this tube temporarily in place; however, it is usually clamped so the contents are not draining. It will be removed in your doctor’s office.

- **Jejunostomy Tube (J-tube):**
  A J-tube is a soft, rubber tube that is placed during surgery into a part of your small bowel (jejunum). It is used to feed you temporarily after surgery while you are not eating. The tube feedings are started after surgery while hospitalized. Depending on how well you can eat by the time you are ready to go home you may need to have supplemental tube feedings at home for a few weeks. Your doctor will remove the tube during one of your postoperative visits.

**Pain control while Hospitalized:**

**Epidural Catheter:**
This small catheter or tube is used to give you pain medicine after your operation. Before surgery, the anesthesiologist will discuss this method for pain relief. Before you go to sleep, the anesthesiologist will put the tube into the epidural space around your spinal cord. A continuous infusion of pain medicine is given through this tube. This tube stays in until you can take pain medicine by mouth.

**PCA Pump:**
A PCA pump is another device used to give you pain medicine if you cannot have or do not want an epidural. This pump is connected to your IV. By pressing a button you can regulate when you get your pain medicine. The pump does not allow too much medicine to be given. A PCA pump is continued until you are able to take pain medicine by mouth.
You will be discharged home once your pain is well controlled with pain medications orally, cleared to be free from infection, normal bowel function returns, and ambulating at your baseline.

**Complications:**
As with any surgery, there are risks such as bleeding, infection, or an adverse reaction to anesthesia. Biliary and pancreatic leaks may also occur. Because the pancreas will not function as effectively, postoperative diabetes and the occurrence of fatty stool may develop. This depends upon how much of the pancreas remains. Your surgeon will inform you of the risks prior to surgery.

Possible complications that patients may experience after this procedure is performed include:

- Infection
- Bleeding
- Leaking
- Difficulty emptying the stomach after consumption
- Inflammation of the pancreas
- Failure of other organs, such as the heart, kidneys and liver

Portions of this information from:
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