Sometimes called a Whipple procedure, this surgery is done to remove the gallbladder, part of the bile duct, the duodenum, which is the beginning of the small bowel, and the head of the pancreas. Sometimes the lower part of the stomach is removed. The surgery often takes 6 hours or more. Most people will be in the hospital for 7 to 8 days after surgery.

**Reasons for this surgery**
- Most often for treating cancer near the head of the pancreas, if the cancer has not yet spread to other body parts, called metastasis.
- Treatment for cancer of the pancreas, duodenum or bile ducts.
- May be done to relieve or prevent symptoms.
- Help to cure painful chronic pancreatitis that has not responded to other treatments.

**Pancreas functions**
- Makes digestive enzymes and sends them to duodenum to help digest food.
- Makes insulin to control blood sugar in your body.

After this surgery, you may need to take pills of digestive enzymes to help you digest your food.

Your blood sugar will be checked after surgery. You may develop diabetes after the surgery. If you had diabetes before surgery, it may be harder to control your blood sugar at first and your medicines may need to be adjusted.
Weeks before surgery
You will see the surgeon before your surgery is scheduled. This doctor will do an exam and talk to you about the risks and benefits of the surgery. You will be asked to sign a consent form.

You may be scheduled to have more testing before your surgery, such as lab tests, EKG, chest x-ray and other testing of your heart if needed. This may be done at the Pre-Operative Assessment Center, located at Martha Morehouse Outpatient Care, 2050 Kenny Road, Columbus OH 43221. The Center is in Suite 2250 on the second floor of the Pavilion building. The phone number is 614-366-7500.

You may need to make changes to your medicines
Talk with your surgeon or the staff of the Pre-Operative Assessment Center about all the medicines you take, as you may need to stop or change some of them before your surgery. You may also need to talk to the doctor who ordered the medicine, in some cases, so you know how to adjust your medicine before surgery.

- If you take aspirin or NSAIDs, such as ibuprofen, naproxen or Celebrex for pain, you may need to stop taking these medicines before surgery.
- If you take medicines for diabetes, ask the doctor who ordered your diabetes medicine how to adjust your medicines before surgery.
- If you take any of the blood thinner medicines listed below:
  › Ask the doctor who ordered this medicine if it is safe for you to stop taking this medicine before surgery. If you have a heart stent or certain other health problems, do NOT stop taking blood thinners, but your doctor may change your blood thinner before surgery.
  › If your doctor has advised you to NOT stop taking these medicines before surgery, please call your surgeon’s office and ask to talk to a nurse.
  › If your doctor agrees you should stop taking any of the medicines listed below, stop for the listed number of days before your surgery or as your doctor recommends:
    - Brilinta (Ticagrelor) – 5 days
    - Coumadin (Warfarin) – 5 days
    - Effient (Prasugrel) – 7 days
    - Eliquis (Apixaban) – 2 days
    - Lovenox (Enoxaparin) – 1 day
    - Plavix (Clopidogrel) – 5 days
    - Pletal (Cilostazol) – 5 days
    - Pradaxa (Dabigatran) – 2 days
    - Savaysa (Edoxaban) – 2 days
    - Xarelto (Rivaroxaban) – 1 day

Day before surgery
- You do not need to be on any special diet before surgery.
- Wash from the neck down with the CHG (chlorhexidine gluconate) soap you were given. Please read the instructions you were given from the Pre-Operative Assessment Center or your surgeon, called “Getting Your Skin Ready for Surgery”.
• **Do NOT eat or drink anything after midnight**, including gum or mints. If your surgery time is after 10 AM, you may be able to drink certain clear liquids up to 6 hours before your surgery time. Talk to your surgeon or nurse to see if this is an option for you.

**Family waiting areas**

Your family will be asked to wait in the surgery waiting area. They should check in with the volunteers at the desk and let the volunteers know if they are leaving the waiting area, in case the doctor would call.

Your surgeon will talk to your family after surgery. They will be able to visit with you after you are moved to your hospital room.

**Tubes in place after surgery**

• **Epidural catheter** - Tube placed before surgery by anesthesia to give pain medicine into the space around your spinal cord. This tube will stay in place until you are able to take pain pills or tablets by mouth.

• **IV** - Tube into your vein to give you fluids and medicines. You may have a pain pump attached to the IV for pain medicine until you are able to take pills.

• **Nasogastric (NG) tube** - Placed through your nose and into your stomach to keep your stomach empty until your bowels are working after surgery. You may be allowed ice chips while you have the tube in placed, but you will not have anything else to eat until the tube is removed, often 1 or 2 days after surgery.

• **Foley catheter** - Drains urine from your bladder. This tube is often removed the day after your surgery.

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Your surgery date is: ____________________________.

You are to arrive at: ____________________________.

Your surgeon is: Dr. ____________________________.

His/her office phone number is ____________________________.

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**Morning of surgery**

• Shower with CHG again, as instructed. Do NOT put on any deodorant or lotion.

• Take any pills you were instructed to take with small sips of water.

• Please bring these items with you:
  › Photo identification (ID) card.
  › Health insurance card(s) and co-payment if needed.
  › A list of all medicines, including prescription and over the counter medicines and any vitamin or herbal products you are taking.
  › A list of all your allergies.
  › A copy of advanced directive, such as a Living Will or Health Care Power of Attorney.
  › A small bag with comfortable clothes such as a robe, slippers and toiletries.
  › CPAP machine if you use it at home for sleep apnea.

• Please leave all valuables and jewelry, including piercings, at home or have your driver keep them for you.
Planning for discharge

Diet and fluids

You will not be able to eat for the first day or two after surgery, but you will be given fluids through your IV. You will first be started on clear liquids after the NG tube is removed. As you are able to tolerate, your diet will be changed to more solid foods.

Most people are able to get back to a normal diet. Some people have trouble with high fat, high sugar and high fiber foods. Meet with a dietitian as needed for help with your diet and follow these tips:

- Eat 5 or 6 smaller meals each day, rather than 3 larger meals.
- Drink oral supplements like Boost, Carnation Breakfast Essentials or Ensure to get more protein and nutrients after surgery to help with healing.
- Drink 6 to 8 cups of water or other fluids each day.

Incision care

- Your incision or surgery cut site will be closed with staples, sutures or glue.
- You can shower, but you will not be able to take a tub bath or have your incision covered with water until your incision heals. This is to prevent infection.
- Check your incision each day and report any signs of infection to your doctor right away. These may include fever, redness, pain, swelling, bleeding or foul drainage from your incision or incision opening up.

Activity

Staff will help you up to the chair or to walk starting the evening or morning after your surgery. Walking helps to prevent blood clots, pneumonia, helps to get your bowels working and speeds your recovery.

You may have plastic boots wrapped around your legs that attach to a pump, called a compression device. The machine fills and empties the cuffs around your legs to help keep your blood moving to prevent blood clots. These should be worn when you are in bed or up in the chair. Be sure to take the cuffs off of your legs before getting out of bed or when walking to reduce the risk of falling.

Diet and fluids

- Jackson Pratt (JP) drain(s) - Allow blood and other fluids to drain from your abdomen to allow healing. These tubes may be removed before you leave the hospital or at your follow up visit with the surgeon. The tube has a bulb end to collect the fluid and your nurse will empty the bulb and measure the fluid. If you are going home with the drain(s), you will be taught how to care for the drain and measure the fluid.

- Drink oral supplements like Boost, Carnation Breakfast Essentials or Ensure to get more protein and nutrients after surgery to help with healing.
- Drink 6 to 8 cups of water or other fluids each day.

Incision care

- Your incision or surgery cut site will be closed with staples, sutures or glue.
- You can shower, but you will not be able to take a tub bath or have your incision covered with water until your incision heals. This is to prevent infection.
- Check your incision each day and report any signs of infection to your doctor right away. These may include fever, redness, pain, swelling, bleeding or foul drainage from your incision or incision opening up.

Planning for discharge

- A nurse case manager (PCRM) or social worker will follow you with your care team to determine if you will need help at home with your care.
- Some patients, especially those who live alone, may need to go to a skilled nursing facility for a short time after leaving the hospital.
- Home health care may also be arranged to help with care needs at home.
- When you are able to eat regular food, are passing gas, have no fever or signs of infection, you will be discharged from the hospital. This is often 7 to 8 days after surgery.
- Your care team will teach you about the care of your incision and drains, signs of problems and activity limits before you go home.
Care after discharge

Follow these guidelines for your care unless you are given different instructions by your doctor or care team.

- Take all of your medicines as ordered.
- Take your pain medicine as needed to control your pain, so you are able to be up and walking at home.
- Avoid lifting, pulling or pushing more than 10 pounds until your follow up appointment. A gallon of milk weighs about 8 pounds.
- Walk several times each day. Increase the distance you walk and how often you walk slowly and as you are able.
- No driving until your doctor says that it is okay.
- You will be discharged on stool softeners as narcotic pain medicine can cause constipation.
- After Whipple surgery, you are at increased risk of ulcers forming. To prevent this, you will be on medicine to reduce stomach acid. You will need to take this type of medicine for the rest of your life.

Follow up visit

You will have a follow up visit scheduled 2 to 3 weeks after your surgery. At this visit, you can expect:

- Any staples, sutures or drains to be removed.
- The doctor will review the pathology report from the lab with you.

When to call your doctor

Call your surgeon's office if you have:

- A fever greater than 100.5 degrees F or 38 degrees C
- An increase in redness, pain or swelling at your incision site
- Bleeding, increased amount of drainage or foul smelling drainage from incision site
- Problems with nausea or vomiting and are not able to keep fluids down
- Lack of bowel movements after trying laxatives
- Oily, loose stools or blood in your stool
- Any questions or concerns about your care before your follow up visit

Call the office anytime as there will be someone on call to answer your questions.

Call 911 if you have trouble breathing or chest pain.

Talk to your doctor or health care team if you have any questions about your care.

For more health information, contact the Library for Health Information at 614-293-3707 or e-mail health-info@osu.edu.