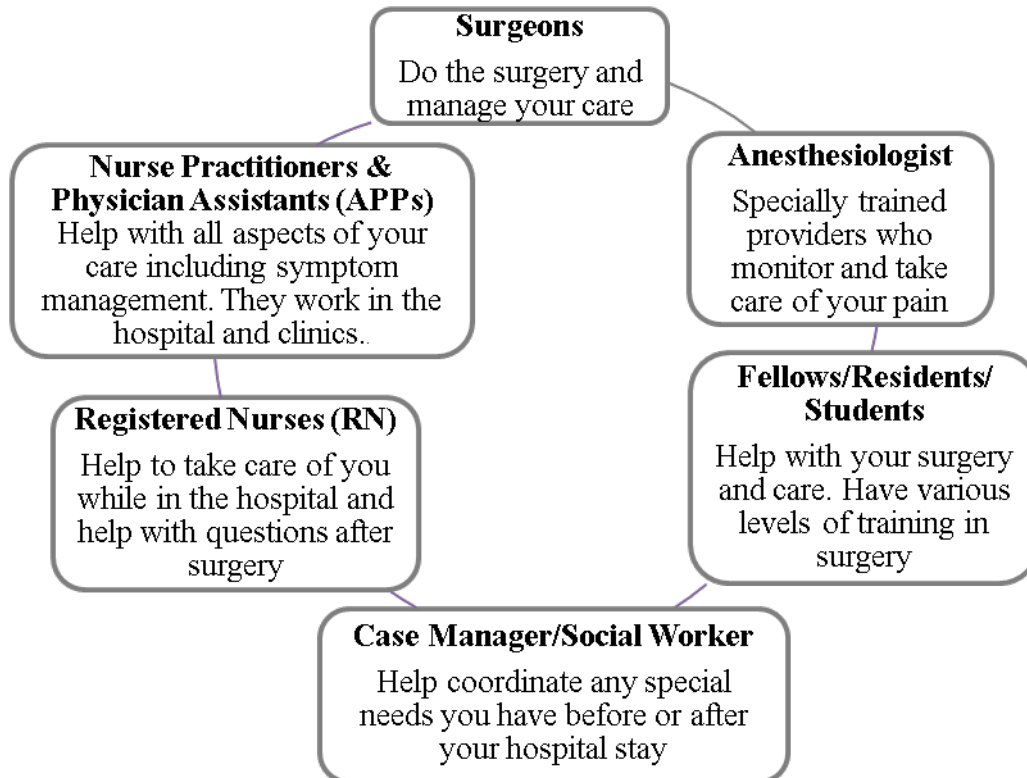


Whipple Surgery: A Guide for Patients and Families

We have an expert team that works together to help you through your journey. We are here to give you the best care possible. Based on your diagnosis, you may meet with many cancer specialists. See below for some of the members of your team and what they

Meet Your Team

do. We want to make sure you and your family receive the care you need before, during, and after surgery.

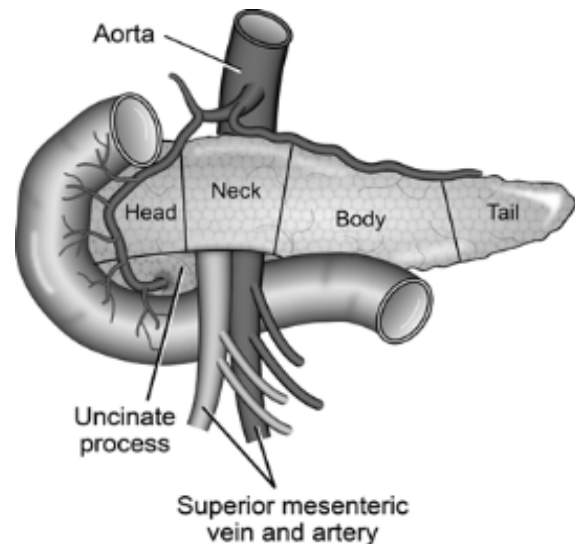


Introduction

This surgery is complex and delicate. It is called a “pancreaticoduodenectomy.” More often it is called “Whipple” surgery. It is most often done because of pancreas tumors and other disorders within the pancreas head.

The pancreas is an organ with two main functions.

1. It makes insulin. Insulin controls blood sugar levels.
2. It makes digestive juices. These neutralize the acid made by your stomach.



Source of image: UW Media Solutions

Surgery

Staging Laparoscopy

The first step is called staging. Staging helps to figure out if the cancer has spread. Laparoscopy will be used. This is when small incisions or cuts are made in your belly. Your doctor uses these openings to look at your liver, the fatty layer covering your intestines, and other nearby organs. This includes lymph nodes. Tissue and fluid samples may be taken for a biopsy. This surgery is often done 1-2 weeks before your Whipple. It could also be done at the same time as your Whipple. If there is no further spread of cancer, the Whipple surgery will be done.

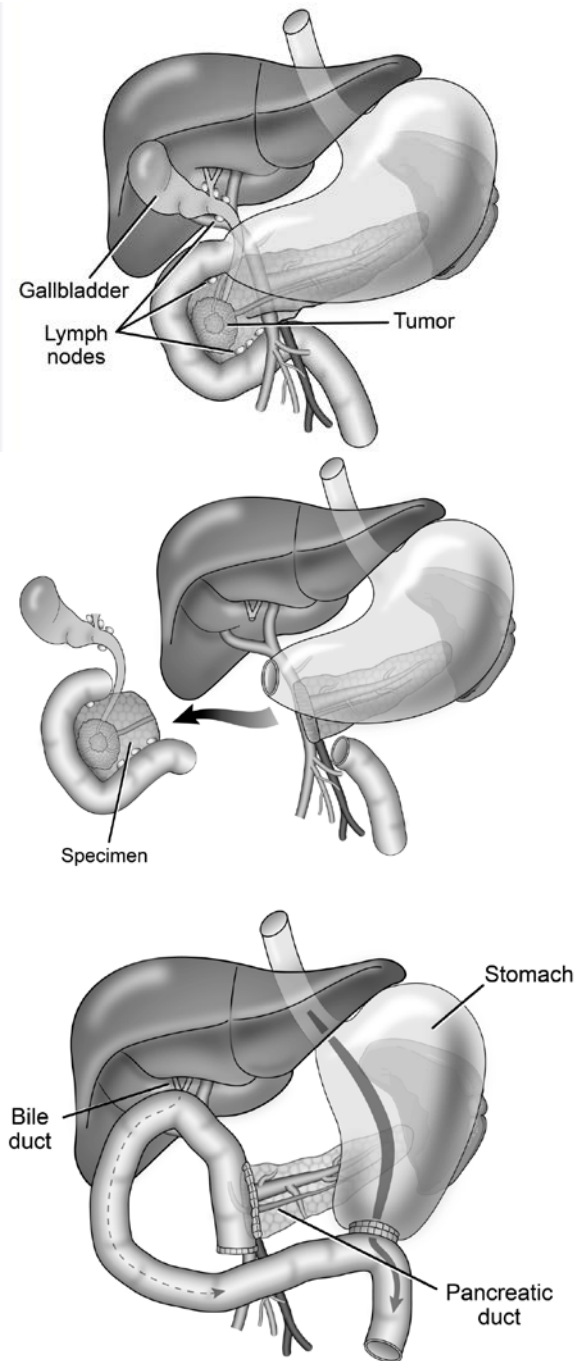
Steps of the Whipple Surgery

Step 1: The surgeon removes the part of the pancreas with the tumor. The first part of the small intestine, bile duct, gallbladder, and nearby lymph nodes will also be taken out. Sometimes the lower part of the stomach is also removed.

The goal of surgery is to remove the tumor and some of the normal tissue around it. The normal tissue is examined to see if it is free of cancer cells. This is known as getting "clear margins." Having clear margins improves the chances—but doesn't guarantee—that all cancer cells have been removed.

Step 2: The second part of the surgery involves sewing your digestive tract back together. You will have three new connections called "anastomoses."

Every surgery varies. It takes around 4-8 hours. When the surgery is done, the surgeon will talk with your family to give them an update.



Source of images: UW Media Solutions

Preparing for Surgery

Dealing with Distress

Distress is common for people with a new cancer diagnosis as well as their family and friends. Distress can be described as feeling powerless, discouraged, depressed, sad, hopeless, guilty, afraid, or uncertain. Some amount of distress is normal. It is normal to worry, especially when you are newly diagnosed. Reach out for more help if you are:

- unusually irritable and angry,
- unable to cope with the pain and tiredness,
- have a hard time making decisions, or
- feel overwhelmed to the point of panic.

Self-help support groups, a counselor, and/or keeping a journal to express your feelings, or explore spiritual and religious beliefs may be helpful. The American Cancer Society website offers great resources.
(<http://www.cancer.org/acs/groups/cid/documents/webcontent/002827-pdf.pdf>)

We have psychologists and social workers who are experts in cancer care. Please let us know if you would like their help.

Quit Smoking

If you smoke, quit smoking 4-6 weeks before your surgery. Stay smoke-free for at least 4 weeks afterwards. This can lower wound complications. Smoking lowers the amount of oxygen in your blood. This hinders the wound-healing process. It can also cause other problems. Resources to stop smoking:

- UW Health Smoking Cessation and Prevention Clinic: (608) 263-0573



- <https://www.facs.org/education/patient-education/patient-resources/prepare/quit-smoking>
- <https://ctri.wisc.edu/quit-line/>

Be Active

Be sure to exercise before your surgery. Getting exercise every day improves blood flow. It also makes breathing easier during recovery. Try walking each day for 30 minutes or try an aquatics program. With any type of exercise, be sure to warm-up for 5 minutes. Stretch before and after activity. Muscles tend to stretch better when the body is warmed up.

Nutrition

Extra protein in your system before surgery improves wound healing. It also helps you to maintain your muscle mass. We suggest 60 grams of protein or more a day. A piece of chicken breast the size of a deck of cards is about 30 grams of protein. For more nutrition information visit: www.uwhealth.org/nutrition. You can also call the Nutrition Clinic at (608) 890-5500.

If you keep losing weight and/or are having diarrhea, you may not have enough pancreas enzymes. Please report these symptoms to your nurse or doctor.

IMPACT Advanced Recovery® Drink

Studies have shown that drinking IMPACT Advanced Recovery® before Whipple surgery can shorten your time in the hospital. It can also lower your chance of infection.

- **5 days** before surgery, drink **3** IMPACT Recovery® drinks per day.

Medicines

Your medicines affect your care. Please talk to your nurse or doctor before stopping or changing any of them.



7 days before surgery:

- Stop all blood-thinning medicines, NSAIDS, vitamins and supplements. This includes aspirin (Excedrin®), ibuprofen (Advil®, Motrin®), and naproxen (Aleve®).
- All medicines will be reviewed at your clinic visit before surgery.
- Instructions will be given to you. Be sure to follow them or your surgery could be cancelled.

If you have diabetes, we want to be sure that your sugars are well managed. Talk with your primary care or diabetes provider before surgery. Discuss your blood sugars and changes that might be needed with your medicines before surgery.

Your Stay in the Hospital

Lines and Drains

After surgery, you will have several lines and drains. These could include:

- IV lines for fluids/hydration
- Nasogastric tube (NG tube) to drain your stomach so you don't throw up
- Foley catheter to help drain your bladder
- Epidural (PCEA) to give you pain medicine
- Drains in your belly to help monitor your pancreas

Doctors and nurses will monitor these lines and drains. Strict intake and output is recorded in the hospital. You will learn how to take care of any drains if needed at home.

Nutrition

Nutrition and hydration are very important after surgery. You will be asked to drink protein shakes. This starts the first day after surgery. Your fluid intake will need to increase during the first few days after surgery. The protein drinks come in a

variety of flavors. If you dislike a flavor, please ask your nurse for a new flavor. These drinks can be diluted with water to make them easier to drink.

If you can drink fluids without feeling sick, you will slowly be given more food options as you can tolerate. A dietitian will visit you in the hospital to review food choices. You will do best if eating 6 small meals rather than 3 big meals.

Bowel Changes

Pain medicine, changes to your diet, fluid intake, and less activity can cause constipation or diarrhea. This will be watched closely.

Activity

Our nurses will help you get out of bed within 6 hours after surgery. Staff will help you to a chair for meals and help you walk as able several times a day. Walking helps your lungs and bowels work better and lowers the risk of infection.

Deep breathing is very important. A nurse will teach you breathing exercises using an incentive spirometer (IS). We want you to use this 10 times every hour while awake.

To prevent blood clots in your legs, you will be asked to wear white anti-clot stockings. Sequential compression device (SCDs) will be wrapped around your legs while in bed. Heparin injections may be given as well.

At Home

Wound Care and Bathing

You will need to look at your incision every day. It will be closed with staples or steri-strips (small tape strips).

- **If closed with staples:**
 - Shower every day.
 - Do not rub the incision site. Just let the soapy water run over it.
 - Do not use any lotions or creams.
 - After your shower, keep the incision site clean and dry.
- **If closed with steri-strips:**
 - Shower every day.
 - Steri-strips often fall off on their own within 1-2 weeks.
 - Do not use any lotions or creams.
 - After your shower, keep the incision site clean and dry.

Drain Care

If you go home with a drain, you will learn how to take care of it. Things to know:

- You may shower with these drains.
- Allow soapy water to run over the site.
- After your shower, keep site clean and dry.
- Keep gauze over the site if needed. Some leaking may be normal.
- Keep track of drainage. Bring your notes about this with you to your clinic visits. This will help to decide when your drain can come out.

Refer to Health Facts for You #4603: Care of Your Surgical Drain at Home. Please watch our YouTube video on how to care for your drain at home. Search for “UW drains”. Choose the video called “Surgical Drain Care.”

Nutrition

It is very common to lose your taste, have a metallic taste, or loss of appetite after surgery. This will get better over time.

Tips for eating after surgery:

- Eat 6 small meals rather than 3 big meals.
- When able, try eating more than 3 small portions of lean proteins (skinless chicken breasts, beef, fish, egg whites), low-fat dairy products, fruits and vegetables. Include foods that are high in fiber (whole grains, fruits, nuts, and beans).
- Do not eat foods that are high in fat. These can be hard to digest.
- Drink enough fluids to keep your urine pale yellow.
- Weigh yourself every week.

Pain Control

When you go home, your pain will be under better control. Narcotic pain medicine will be prescribed to use as needed. Using Tylenol® and ibuprofen along with your narcotics can help manage your pain. This will help you to wean off the narcotic pain medicines. Also try strategies such as relaxation and distraction as ways to take your focus away from the pain.

Bowels

Constipation may be a problem after surgery. This will improve. Medicines are often needed as noted below, especially if you are taking narcotics.

- Most people need to take a stool softener. This helps stools pass more easily. You may take 1-2 tabs up to twice a day if needed. You should take these if you are taking narcotics.
- Another option is MiraLAX®. Use 1 heaping tablespoon of powder 1-2 times per day (or as directed by your

doctor). Mix it in 4-8 ounces of water or juice.

- If you have diarrhea, you will not need these medicines. We will need to figure out the cause. A stool sample might be needed for testing before taking anything to stop the diarrhea.

Life After Your Whipple

- Do not lift more than 20 pounds for about 6-8 weeks. After 6-8 weeks, you may slowly lift more as able and resume normal activities.
- About 3 months after surgery you should be able to return to your normal lifestyle. This includes going back to work depending on your job requirements.

When to Call

About your wound/incision:

- More pain or tenderness
- More swelling or opening of the incision
- Any change in the color or amount of drainage
- Redness or warmth around the incision site
- Temperature (by mouth) above 100.5° F or 38° C

About your drain:

- Redness, warmth, or firmness around drain
- Temperature (by mouth) above 100.5° F or 38° C
- Big increase or decrease in the amount of drainage
- Change in the color of the drainage

About your bowels:

- No bowel movement in the past 3 days
- 3 or more loose stools for more than 3 days

Who to Call

UW Health, General Surgery Clinic
(608) 263-7502
600 Highland Ave
Madison, WI 53792

UW Health Website

Use a QR reader on a smart phone or other device to scan the barcode below. It will take you to our website for more information. The direct website link is: <https://www.uwhealth.org/uw-carbone-cancer-center/pancreatic-cancer/pancreatic-cancer/36899>



Day Before Surgery: Check List



Bowel Prep

- Do a bowel prep if directed by your health care team.



Check Medicines

- Please refer to instructions provided during your clinic visit.



Skin Prep

- Shower the night before and the day of your surgery.
- Use the antibacterial soap given to you during your clinic visit. This soap (Hibiclens®) can lower the risk of infection after your surgery.
- Do not apply any creams, moisturizers, lotions, or make-up.
- Sleep in clean sheets the night before surgery.



Diet

- You may eat a normal to light breakfast and lunch. After this, only drink liquids including your IMACT® drinks.
- **No eating or drinking after midnight.**



Pack a Bag

- Leave any valuables at home.
- Do not bring your home medicines with you.
- If you use a CPAP machine, please bring this with you.

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 3/2018. University of Wisconsin Hospitals & Clinics Authority, All Rights Reserved. Produced by the Department of Nursing. HF#4477