

WHIPPLE PROCEDURE

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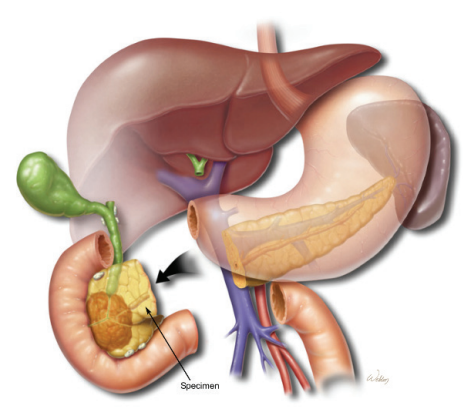
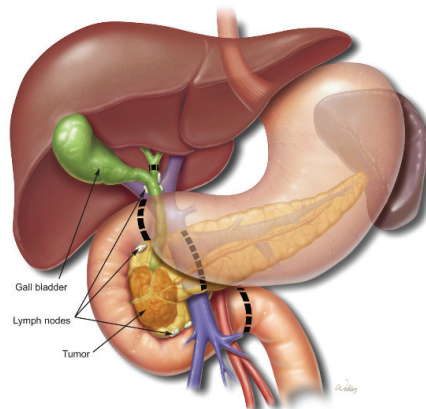
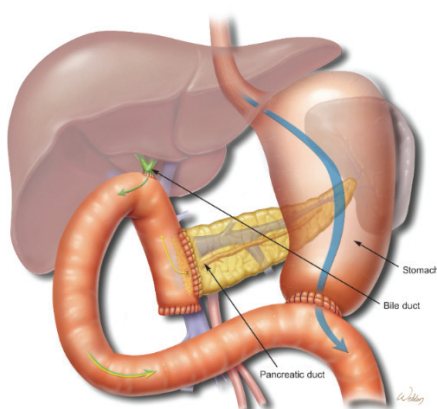
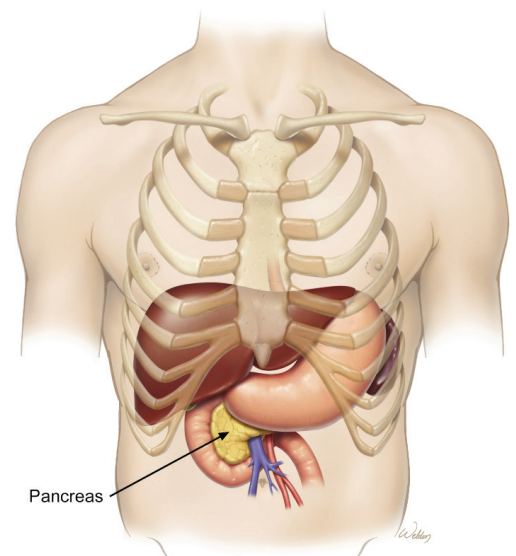
A Whipple procedure is a surgery that involves removing the head of the pancreas, part of the small intestine that is attached to the pancreas, part of the bile duct that runs through the head of the pancreas and the gallbladder.

The surgical team usually performs a modified version of this operation called Pylorus-preserving Whipple that saves the entire stomach and the valve at the bottom of the stomach. The advantage of this version is that it helps maintain your normal stomach function and may also prevent reflux of intestinal contents back into the stomach.

During this procedure, the pancreas, bile duct and stomach have to be reconnected to the small intestine. This restores your digestive functions by re-establishing the flow of pancreatic juice from the pancreatic duct, bile from the bile duct and food from the stomach. The areas that have been re-connected have to heal without a leak.

While this is a major surgery and can be very technically challenging, our surgeons specialize in pancreas surgery, have years of training and experience and are experts in performing surgery with very little blood loss and outstanding outcomes.

Most patients can safely go home about three days after surgery. However, your care team will make sure you are ready and it is safe for you to go home. On the day of discharge, plan to leave the hospital before 11am.



VARIATIONS OF THE SURGERY

- Pylorus-preserving Whipple: As described above, this variation saves the entire stomach and the valve at the bottom of the stomach. The advantage of this variation is that it preserves gastric function, maintaining the normal stomach function and preventing reflux of intestinal contents back into the stomach.
- Classic Whipple: In this version, the last third of the stomach and the valve at the bottom of the stomach are removed. In some cases, the reconstruction of the small intestine is slightly different. This is usually performed when the tumor is too close to the stomach and complete removal of the tumor requires removal of the bottom of the stomach.

BEFORE SURGERY

Nutrition

You may not have been able to eat well lately. Try to improve your nutrition as much as possible so you can heal well and avoid infection. Drink nutritional supplements like Ensure or Boost. If you have diabetes, you can drink Glucerna. Try to drink two or three of these each day for five days before surgery in addition to regular food.

On the day before surgery, eat a normal breakfast and lunch. After lunch, drink only liquids, preferably with calories, including nutritional supplements like Ensure or Boost. If you DO NOT have diabetes, also drink one bottle of ClearFast on the day before surgery after lunch. Drink a second bottle up to three hours before you arrive at the hospital for surgery. After midnight on the day before surgery, do not eat, drink or chew gum with the exception of ClearFast.

Exercise

If possible, exercise daily before surgery. Walking for 30-60 minutes every day prior to surgery will promote faster recovery.

Smoking/Alcohol

Smoking lowers the oxygen in your blood and impairs wound healing. It also increases the risk of pneumonia after surgery. All patients must stop smoking a minimum of two weeks before surgery.

Avoid all alcohol for at least one week prior to surgery and until you are fully recovered.

Skin Preparation

Do not shave or clip your hair prior to surgery, which may increase your risk of infection. Shower with a special soap called Hibiclens the night before surgery. You can buy this at most grocery stores or online. Do not apply makeup or wear any jewelry. Remove nail polish and artificial nails.

Diabetes

If you have diabetes, it is very important to make sure your blood sugar is well controlled before and after surgery. This decreases the risk of infection and problems with healing. If you are having trouble with this, contact your primary care doctor to get your blood sugar under control before surgery.

Blood Work/Other

Recent blood work is required prior to surgery to assess the patient's overall health and identify any potential complications that may arise. If there is a concern, your surgical team may ask you to visit other doctors.

DURING SURGERY

- You will be given anesthesia, so you will be asleep and pain-free.
- You will receive fluids and other medicines during the surgery through an intravenous line (IV).
- You will also receive a spinal block, or one shot in your back of a long-acting pain medicine called Duramorph. This decreases any pain in the area of your incision for days and decreases the amount of narcotic pain pills needed.
- A tube will be placed down your throat to help you breathe during the surgery. This will usually be removed before you wake up.
- You will also have a tube placed in your bladder to drain your urine. This will usually be removed on the first day after surgery.
- Your doctor will remove only the part of your pancreas that has to be removed and save as much of your remaining pancreas as possible.
- A temporary drain leading out of the body will be placed at the time of surgery to collect any fluid that may leak during the healing process. This drain is sometimes removed before you go home. However, most patients go home with the drain in place and it is removed later in the office. This is very easy and it does not cause any pain. Follow the instructions for drain care in this booklet.
- After surgery, your breathing and blood pressure will be monitored. You may receive oxygen and you will be given medicine to control any pain.

AFTER SURGERY

Most patients need about five to six weeks to completely recover from the procedure. Each week you will feel better and be able to do more. It is normal to be tired, have a poor appetite, not be able to eat much at a time, have indigestion and some moderate pain at the incision site. All these symptoms will improve gradually with time.

Walking

- It is very important you are up and walking in the hospital halls immediately after surgery. On the first day after surgery, we will have you do three laps around the nursing station in the halls in the morning, afternoon and evening.
- Walking prevents blood clots in your legs, helps prevent lung problems, keeps you from getting weak and wakes up your bowels after surgery.
- The PACE protocol will be used in the hospital to give you specific goals each day to spend more time out of your bed and increase your movement. This poster with the protocol will be in your hospital room and the nurses will help you follow it.
- Continue walking frequently after you go home.

PACE protocol
(Postoperative Ambulation Care Established protocol)

Post-Op Day #0-Discharge:	Post-Op Day #0:
<input type="checkbox"/> Upright in chair for ALL meals	<input type="checkbox"/> Chair Time: 30 minutes

Post-Op Day #1:	Post-Op Day #2:	Post-Op Day #3:
<input type="checkbox"/> Chair Time: 8 hours	<input type="checkbox"/> Chair Time: 12 hours	<input type="checkbox"/> Chair Time: 12 hours
<input type="checkbox"/> Ambulation: Every 8 hours <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> Ambulation: Every 8 hours <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> Ambulation: Every 6 hours <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<input type="checkbox"/> Laps: 3 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> Laps: 6 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> Laps: 9 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

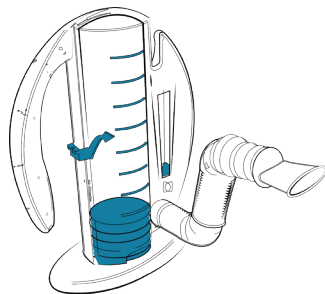
*Patients are required to check each box on the corresponding post-operative day

Blood Clots

- To prevent blood clots in your legs you will be given TED hose or compression stockings to wear while in the hospital bed and shots of a blood thinner called Lovenox. For patients with cancer, you and your family will be taught how to continue these shots at home for four weeks after surgery.
- Walk frequently once you go home to prevent blood clots in your legs.

Deep breathing

- An incentive spirometer will be given to you to help you take deep breaths. This prevents infection and fluid from building up in your lungs.
- Put the piece of plastic in your mouth and breathe in slowly and as deeply as you can. Hold the breath for as long as you can. Then let the air out. Do this 10 times every hour. You will also use this in the hospital and then take it home with you and continue to use it for about a week after surgery.



- You might need to support your abdomen by holding a pillow if this makes you cough.

Nutrition

- Most patients are able to resume eating solid food the first day after surgery. However, it is important to eat just a few small bites of food at a time, no more than two tablespoons every 30 minutes.
- Continue the liquid nutritional supplements after surgery (Glucerna, Boost or Ensure).
- It is a good idea to take a multivitamin with iron.
- If you have any nausea or don't feel like eating, don't force yourself to eat. Your appetite will return in time.

Activity

- Don't go home and go to bed. You need to be as active as you can.
- Increase your activity gradually. Take short walks on a level surface.
- Don't overexert yourself to the point of fatigue. If you become tired, rest.
- Limit stair climbing to once or twice a day. Climb slowly and stop to rest every few steps.
- Don't lift anything heavier than 10 pounds for six weeks after surgery.
- Don't mow the lawn or push a vacuum cleaner for six weeks after surgery.
- If you ride in the car for longer than an hour, stop each hour to stretch your legs.

Work

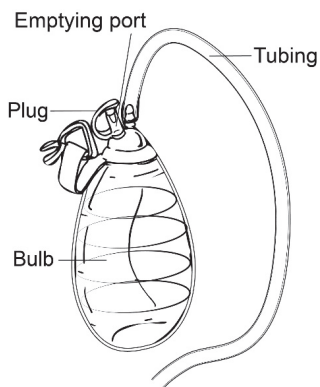
- Ask your doctor when you can expect to return to work.
- You can resume sedentary work as soon as you feel able.
- You can drive when you no longer require any pain medicine and you feel it is safe.
- It is okay to return to work sooner than six weeks after surgery if your job does not require lifting and you want to return to work sooner.

Incision Site Care

- The surgery team uses stitches that are under the skin that will dissolve and go away over time so you will not have to have any stitches removed.
- They will place Dermabond, a medical glue, on your skin so you will not have to have any tape removed and you can shower right away.
- Wash the incision site with soap and water and pat dry. Avoid scrubbing the incision.
- Inspect the incision site every day for increased redness, drainage, swelling or separation of the skin.

Drain Care

- It is very easy to care for the drain. It is okay to shower and get soap and water on the drain but do not take a bath or go swimming.
- Measure and record the fluid before emptying. There are markings on the side to help you measure. Empty the fluid and keep the bulb squeezed as you put the cap back on, which keeps the drain on suction. Take the drain output record to your follow-up appointment.
- If you notice a change in the color of the drain fluid, especially green fluid or bright red blood, this is not normal, and you should call your surgical team right away.



JP Drain Output Record
Please bring this form with you to each office visit

	JP # 1	JP # 2
Date:		
Morning		
Midday		
Evening		
	TOTAL	TOTAL
Date:		
Morning		
Midday		
Evening		
	TOTAL	TOTAL
Date:		
Morning		
Midday		
Evening		
	TOTAL	TOTAL
Date:		
Morning		
Midday		
Evening		
	TOTAL	TOTAL

Pain

- You will be given a prescription for pain pills to use at home after the surgery. Take as needed.

Medications

- Take your medications exactly as directed.
- Don't take any over-the-counter supplements or herbal medications unless your doctor says it's okay.

Bowel Movements

Avoid straining with bowel movements by increasing fiber in your diet, drinking eight to 10 glasses of water each day and taking a stool

softener called Colace and/or a laxative called Miralax to prevent constipation as long as you are taking any pain medication. It is normal to not pass any gas for about three days after surgery and to not have a bowel movement for about five days after surgery.

FOLLOW-UP

Your follow-up appointment will be scheduled and communicated to you before you are discharged. It will be set up for about a week after your surgery.

When to Call Your Doctor

Call your doctor right away if you have any of the following:

- Any chest pain
- Shortness of breath
- Rapid, irregular heartbeat
- Worsening abdominal pain
- Any unusual bleeding
- Fever of 101.5°F or higher, or chills
- Signs of infection around the incision (redness, drainage, warmth, pain)
- Incision that opens up or pulls apart
- Persistent nausea or diarrhea
- Yellowing of the skin or eyes; light-colored stool
- Trouble concentrating
- Dizziness or lightheadedness

YOUR EXPERIENCE

You may receive a text, email or letter from Baylor Medicine via our vendor, Press Ganey. This is a survey about your experience today.

- Your feedback is important to us so we can improve.
- We strive for excellence at Baylor Medicine. If for any reason you cannot rate your experience as "very good," please let a member of our team know so we can make immediate improvements.
- If any question does not apply to your visit, please leave it blank.

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