



West Michigan Cancer Center

Radiation & Surgical Specialties

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## SURGICAL ONCOLOGY

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### PANCREAS SURGERY

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A pancreaticoduodenectomy or whipple procedure is the removal of the head of the pancreas, part of the duodenum, the lower bile duct, and the gallbladder. Once you decide to have surgery, it will take place over the next few weeks. The surgeon's office will contact you with the date and time of your surgery. The surgery takes about 4 to 7 hours. You can expect to stay in the hospital for about a week. This handout will help you learn about the surgery, how to prepare for surgery and your care after surgery.

#### The Pancreas

Your pancreas produces enzymes that help to digest fat. Your pancreas also produces 2 hormones, insulin and glucagon. They help to regulate blood sugar levels. Although part of your pancreas will be removed during surgery, there is usually enough of it left to produce hormones and enzymes.

- High blood sugar level is rarely a problem after this surgery, but it can happen.
- If your remaining pancreas does not make enough enzymes to digest the food you eat, you may have diarrhea. If this happens, you may need to take pills with meals and snacks to replace the enzymes.

#### Pre-Surgical Testing Before Your Surgery

Pre-surgical nursing staff will call you with further instructions. We may also recommend you see other healthcare providers.

#### Complete an Advanced Directive

If you haven't already completed a Health Care Proxy form, we recommend you complete one now. A health care proxy is a legal document that identifies the person who will speak for you if you are unable to communicate for yourself. The person you identify is called your health care agent. If you are interested in completing a Health Care Proxy form, talk with your nurse. If you have completed one already, or if you have any other advanced directive, bring it with you to your next appointment.

#### Preparing Before Surgery

Keep up with your regular activities, exercise and eat a balanced diet. You want to be as strong as you can before you have the surgery. We may also offer a consultation with the dietician and physical therapy.

Arrange for someone to help you around the house and do errands for you when you come home after surgery.

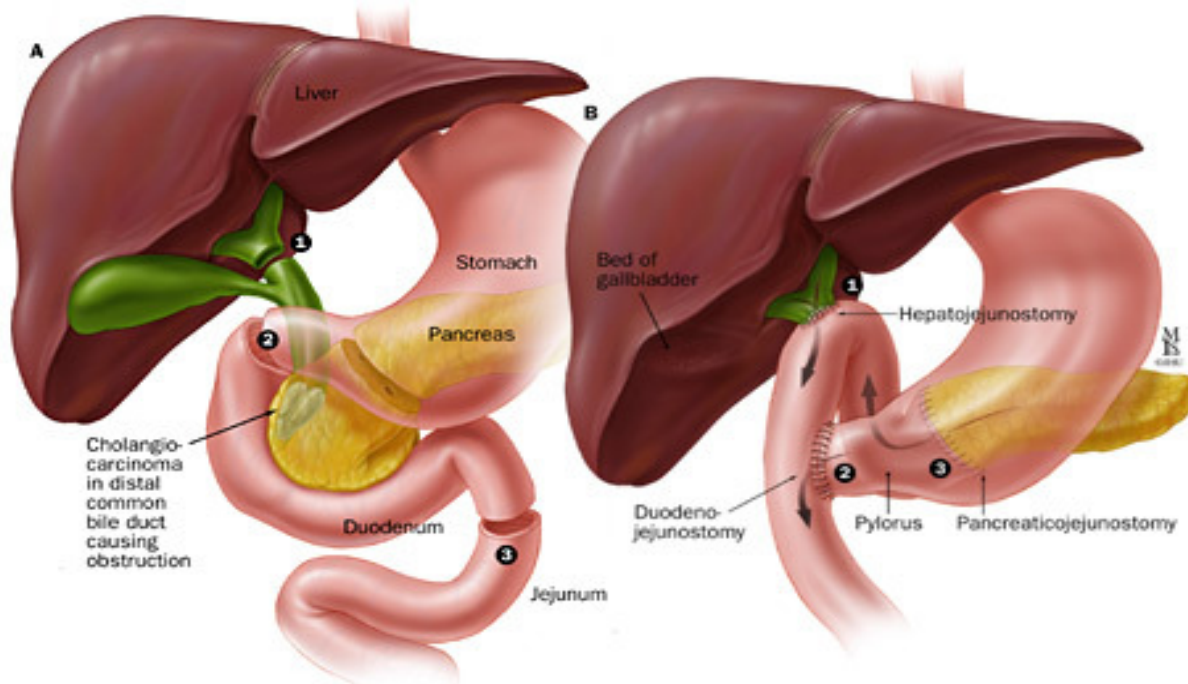
Follow the pre-op checklist and medication instructions that were given to you during your pre-op visit.

#### Day of Surgery

On the morning of your surgery go to the In-patient Surgical Unit. A nurse will admit you and start your intravenous, or IV. You may be given some medications. You will then go to the Operating Room, either walking or on a stretcher. Your family may go with you and wait in the waiting area outside of the Operating Room. You will see nurses and doctors in the Operating Room. The anesthesiologist will give you some medication to help you fall asleep.

#### About Your Surgery

During your surgery, your surgeon will remove the head of your pancreas, your duodenum (the first part of your small intestine), the end of your common bile duct, and your gallbladder (see figure below). Sometimes, part of the stomach must be removed. Your surgeon will then connect the rest of your common bile duct and your remaining pancreas to your jejunum (middle part of your small intestine). This ensures that the pancreatic enzymes and bile will flow into your small intestine, as before. Your surgery will take about 4-6 hours. Usually a feeding tube is placed in your small intestine.



### After Surgery

After your surgery, you will go to a hospital bed where you will be closely watched. This could be in the Intensive Care Unit, or ICU or Observational Unit.

A nurse will be with you as you wake up. On the unit the nurse will check your blood pressure, heart rate and temperature (vital signs) and dressing as needed.

Along with your IV, you may have:

- A Patient Controlled Analgesia (PCA) pump– where you push a button to give yourself the pain medication.
- An epidural catheter which is when the pain medicine is given through a thin tube into a small space in your lower back for 3-5 days.
- A tube called a Foley catheter in your bladder to drain urine during surgery for 1-2 days.
- Tubes or drains near your incision area to drain extra fluid that can build up after surgery.

### Pain

You will have pain and discomfort after surgery, especially around your incision. Pain medicine will be given to you on a regular basis to keep you comfortable and your pain under control. As you heal, your pain should lessen each day.

Pain medicine can be given in different ways:

- PCA pump
- Epidural - usually given for 3 to 5 days
- In your intravenous, or IV
- Pills - when you are able to drink fluids

Most pain medicines can make you constipated. Stool softeners will be given to help prevent this problem.

You may also have stomach discomfort related to gas pains for a few days after surgery. Walking helps to lessen this discomfort.

### Subcutaneous Injections

After surgery you will need medication to prevent blood clots. This medication is given with a needle under the skin. It is called a subcutaneous injection. You may need to continue this medication for 3 weeks after discharge. You may also need subcutaneous injections to stop digestive secretions.

## Medicines

Your doctor will tell you if and when you can restart your medicines. He or she will also give you instructions about taking any new medicines.

- If you take blood thinners, such as warfarin (COUMADIN®), clopidogrel (PLAVIX®), or aspirin, be sure to talk to your doctor. He or she will tell you if and when to start taking those medicines again. Make sure that you understand exactly what your doctor wants you to do.
- Take pain medicines exactly as directed.
- If the doctor gave you a prescription medicine for pain, take it as prescribed.
- If you are not taking a prescription pain medicine, take an over-the-counter medicine that your doctor recommends. Read and follow all instructions on the label.
- Do not take aspirin, ibuprofen (ADVIL®, MOTRIN®), naproxen (ALEVE®), or other non-steroidal anti-inflammatory drugs (NSAIDs) unless your doctor says it is okay.
- If you think your pain medicine is making you sick to your stomach:
- Take your medicine after meals (unless your doctor has told you not to).
- Ask your doctor for a different kind of pain medicine.
- If your doctor prescribed antibiotics, take them as directed. Do not stop taking them just because you feel better. You need to take the full course of antibiotics.

## Incision Care

- If you have strips of tape on the incision, leave the tape on for a week or until it falls off.
- Wash the area daily with warm, soapy water, and pat it dry. Don't use hydrogen peroxide or alcohol, which can slow healing. You may cover the area with a gauze bandage if it weeps or rubs against clothing. Change the bandage every day.
- Keep the area clean and dry.

## Activity

While in the hospital you will feel tired and unwell. While rest is important, getting up and walking can help most patients feel better and recover quicker. You will be encouraged to do deep breathing, coughing and leg exercises after surgery.

Walking and increasing your activities helps to keep your lungs healthy, prevent blood clots and get your bowels moving.

Move as much as possible while in the hospital:

- Sit up near the edge of the bed and dangle your legs.
- Sit up in a chair for meals.
- Sit up when visiting.
- Walk around the hallway (before doing this, ask for assistance from your nurse or therapist).

## Feeling Tired

It is normal to feel tired after surgery. It may take weeks to months for your energy to return to normal. Everyday do a bit more, walk a little farther.

At home, gradually resume your normal activities. Avoid heavy lifting (5 lbs or 2 kgs) or straining for at least 6 to 8 weeks. Do not do any heavy lifting or strenuous exercises until you check with your surgeon.

## Eating

You will have an IV for fluids and medicine. Your IV is removed when you are drinking and if not needed for medicine. Slowly, you will start drinking clear fluids then progress to eating solid foods. You may find that you need to eat small amounts of food 4 to 6 times a day.

You may also feel nauseated or sick to your stomach. Medicine will be given to decrease this feeling.

A dietitian is available to talk with you about eating a healthy diet as you recover from surgery. Due to the difficulty eating, you will usually be sent home with feeding through your small bowel tube.

## **Pancreas**

The pancreas helps our bodies digest food and control blood sugar levels. You may have a hard time digesting fats and have diarrhea. You will most likely lose weight after surgery. There is a small chance that you may develop diabetes after your surgery. Diabetes is when your body does not use sugar properly.

## **Going Home**

You will need to arrange for transportation home. If you are taking strong pain medicine with a narcotic, such as morphine do not drive, operate heavy machinery or drink alcohol.

When you go home, you will be given:

- Prescriptions for pain medicine, a stool softener and an antacid
- A follow-up appointment with your surgeon

Your nurse will review with you what you need to know about how to care for yourself at home. Discuss your concerns with your nurse. Ask the nurse to explain or clarify anything you do not understand. We want to ensure you know what to do when you go home.

## **Follow-up Care is a Key Part of Your Treatment and Safety**

Be sure to make and go to all appointments, and call your doctor or nurse call line if you are having problems. It's also a good idea to know your test results and keep a list of the medicines you take.

**Call 911** anytime you think you may need emergency care. For example, call if:

- You passed out (lost consciousness).
- You have severe trouble breathing.
- You have sudden chest pain and shortness of breath, or you cough up blood.
- You have severe pain in your belly.

**Call your doctor or nurse call line now** or seek immediate medical care if:

- You have pain that does not get better after you take your pain medicine.
- You have a fever, chills, or body aches.
- You have loose stitches, or your incision comes open.
- You are bleeding from the incision.
- You have signs of infection, such as:
  - Increased pain, swelling, warmth, or redness.
  - Red streaks leading from the incision.
  - Pus draining from the incision.
  - Swollen lymph nodes in your neck, armpits, or groin.
  - A fever  $>100.5^{\circ}$
  - Leg swelling, one more swollen than the other.
  - You have trouble passing urine or stool, especially if you have pain or swelling in your lower belly.
  - You have pale-colored stools along with dark urine and itching.
  - Your stools are black and tar-like or have streaks of blood.
  - Watch closely for changes in your health, and be sure to contact your doctor.
  - You do not have a bowel movement after taking a laxative.