

# 11/15/2007 A PATIENT EDUCATION GUIDE TO NEPHRECTOMY

## CHRIS MOORE, MD

### *Welcome*

The primary purpose of this nephrectomy is to cure the cancer by removing it completely. This brochure is aimed at helping you understand your surgery, what will happen in the hospital, and what you can expect when you go home. Remember, the understanding and treatment of kidney cancer continues to change and evolve as our knowledge of kidney cancer grows. You should talk to your surgeon or a member of your healthcare team anytime you have concerns or questions. The following information provides an overview of your plan of care. Please keep this information. You may want to read it again later.

### *Your Surgery*

Your doctor suggests that you have your **kidney** removed. This surgery is called a **nephrectomy**.

A partial nephrectomy involves removing a portion of your kidney, where the tumor is located.

A radical nephrectomy involves removing the entire kidney and may include the adrenal gland, any lymph nodes that are close to the kidney and some surrounding tissue. Your kidney will be removed through an incision down the middle of your abdomen or across the abdomen or the flank

After surgery, your remaining kidney should be able to perform the work of both kidneys.

**Kidney:** a bean-shaped organ located just below your waist on either side of your spine. The kidneys' function is to remove waste products from the body and produce urine.

**Nephrectomy:** surgery to remove a kidney.

### *The hospital and who you will meet*

The hospital is a busy place. You will have a primary nurse who will frequently be helped by a nurse's aide. They will be responsible for getting your medicines, checking your vital signs, changing your dressings, and helping you with your daily activities. They will also teach you how to take care of your incision and catheter before you leave. There will also be people to draw your blood and start IVs, dieticians, physical therapists, cleaning staff and many others.

## Preparation for Surgery

### *Diagnostic tests before your surgery*

You may have the following tests:

- **ECG**
- **CXR**
- **PFT's** (if history of COPD)
- **Urinalysis**

### *Blood Tests*



**ECG:** (electrocardiogram) a test taken to record electrical activity of the heart

**CXR:** chest x-ray for the purpose of ensuring lungs are clear

**PFTs:** (pulmonary function tests) tests used to check the health of the lungs and detect any changes or abnormalities

**Urinalysis:** a test that checks for disease in the urinary tract

- **BUN and creatinine**
- **CBC**
- **PT and PTT**
- **Type and screen**
- **Electrolytes**

### ***Consultations***

Depending upon your test results and your general health, your doctor may request consultations from other services such as pulmonary (lung) or cardiology (heart).

### ***Blood donations***

You may be asked to donate 1 or 2 pints of your own blood for the surgery. Your doctor will give you a letter that states how much blood will need to be collected. Your doctor may also give you a prescription for iron to help strengthen your blood.

### ***Medications***

Stop taking aspirin, aspirin products, and blood thinners 10 days before your surgery unless directed by your physician. Also, be sure to tell your doctor and anesthesiologist about all other drugs you are taking, including over-the-counter medications, vitamins and herbs.

### ***About anesthesia***

You will also see an *anesthesiologist*. This doctor will talk to you about *general anesthesia*. General anesthesia is a drug-induced state that will affect your entire body causing you to sleep during surgery. You may receive a general anesthetic by inhaling it through a mask or tube, or you may receive it through a vein.

Your anesthesiologist will tell you which medicines you can take with a small amount of water on the day of surgery. Talk to your doctor or nurse about this.



## **24 hours prior to surgery**

### ***Clear Liquid Diet***

You will be advised to begin a clear liquid diet 24 hours prior to your surgery. A clear liquid diet leaves minimum residue in the intestinal tract while providing you with fluids, salts and minerals. This diet should only be used for brief periods of time.

***Only*** the following foods are permitted while on this diet:

**Stop smoking at least 2 weeks before your procedure.**

Smoking is associated with an increased risk of bladder and kidney cancers and delays wound healing.

Programs are available to help you and/or your loved ones to stop smoking. For more information, ask your doctor or nurse.

- Beverages: water, tea, coffee, decaffeinated coffee (nothing carbonated or with alcohol)
- Soups: fat free consommé, clear broth and bouillon
- Desserts/sweet: plain gelatin (any color or flavor), clear hard candy
- Sweeteners: granulated sugar, artificial sweeteners
- Fruit juices: apple juice, grape juice, cranberry juice, orange juice (without pulp)

***Sample meal plan***

<b>Breakfast</b>	<b>Lunch</b>	<b>Dinner</b>
½ cup (1.2dl) orange juice	½ cup (.25 liter) broth	1 cup (.25 liter) broth
Cherry gelatin	½ cup (1.2 dl) lime gelatin	½ cup (1.2 dl) orange gelatin
Black coffee	Hot tea	Hot tea
1 tsp (5 ml) sugar	1 tsp (5 ml) sugar	1 tsp (5 ml) sugar

***Bowel Preparation***

Your doctor may recommend a laxative such as Mag-Citrate to drink the morning before surgery (am of the day before surger). This will help clean out your bowels and make surgery safer for you. If you are unable to take of this product, please discuss this with your doctor or nurse.

***Possible side effects***

Mag-Citrate can cause nausea and/or vomiting. If this occurs, stop taking the drink until your symptoms disappear. You can also drink other liquids at the same time for a change in taste. If you start to vomit the *entire* drink, call your doctor, and he/she may suggest a different method for preparing your bowels. Vomiting is *not* a common side effect; however, if you do experience this, be sure to inform your health care team because your surgery cannot be performed without cleansing the bowels. If you do not pass clear stool after finishing the laxative, you should inform your health care team.

**The night before surgery**

**DO NOT eat or drink anything after midnight the night before your surgery.** You may brush your teeth and rinse your mouth with mouthwash, but you should avoid swallowing water or mouthwash. This will help prevent possible complications while you are under anesthesia.

**Day of surgery**

***The Operating Room***

***Before you are taken to the operating room***

- Do **not** wear anything that can come off during surgery, such as dentures or plates, eyeglasses or contact lenses, jewelry, wigs, or any removable prosthesis, such as an artificial eye or leg.
- Empty your bladder.
- You will be given a hospital gown to wear.
- An **IV** will be placed in a vein in your neck, arm, wrist, or hand.
- While you are waiting, you may be given medicine to help you relax. You will be helped onto a stretcher and taken to the operating room.

#### ***In the operating room***

- Most likely, you will receive an anesthetic that will make you sleep.
- The lower part of your body, including your abdomen, thighs, and genital area, will be cleansed and prepared for surgery.
- A blood pressure cuff that allows constant monitoring will be put on your arm.

#### ***Before and after your skin prep***

Before your procedure you will be washed with a solution called Betadine®. Like shellfish, it contains iodine. Be sure to tell your doctor and nurse if you are allergic to iodine or shellfish before the skin prep. If you begin to itch or develop a rash after the skin prep, tell your nurse. You may wash off the Betadine® as soon after your surgery as you are able.

**IV** (intravenous) **tube**: a small tube that gives you medicine and fluids through

## **Recovery after surgery**

### ***News of your progress***

Ask your family and friends to wait in the specified surgery waiting room.

Your doctor or member of the health care team will talk with them as soon as your surgery is completed.

### ***After your surgery***

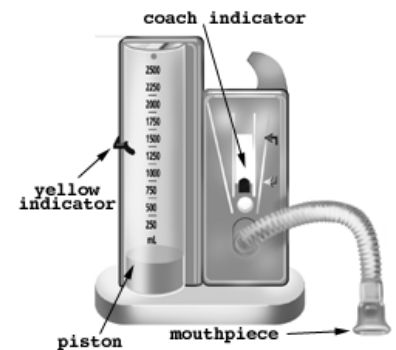
- You will wake up in either a **recovery area** or the **PACU**. Because a protective lubricant is put in your eyes while you are in the operating room, you may not see clearly when you first wake up.
- Once you are well awake, the breathing tube in your throat will be removed so you will be able to talk. You may have a sore throat for a day or two, and your mouth will probably feel dry. You may be given small amounts of ice chips after the tube is removed to rinse your mouth. Do not swallow any fluids, including water, until your doctor says you can.
- You will have a **central venous catheter (CVC)** or an **internal jugular catheter** placed into a vein during surgery. These are long, flexible tubes through which you receive fluids (also called IV's). A CVC goes into a large vein in the neck. The IV will remain in place until you are able to take enough fluids by mouth.
- You will also have stitches (sutures) or metal clips (staples) to hold the edges of your incision together. Your nurse will check your incision regularly to make sure there is no

bleeding. Although some of your stitches will dissolve, other stitches and all metal staples will be removed 7 to 10 days after surgery.

- You will have oxygen given to you through tubes in your nose, in addition to:
- A **nasogastric (NG) tube**
- A **pulse oximeter**
- An **abdominal drain**
- **Pelvic drains**

### ***Breathing and coughing exercises***

- You will use an **incentive spirometer** 10 times every hour while awake. Your nurse or respiratory therapist will demonstrate how to do this properly.
- You will be encouraged to cough 3-5 times every 2 hours while awake. *Splinting*, or using a pillow to support your incision, will make coughing less painful. When you prepare to cough, put a pillow over your incision. Hug the pillow to your chest and abdomen; take in a deep breath, and then cough. Be sure to cough; don't just clear your throat.



### ***Pain Management***

- You will be given medicine that can help relieve or decrease your pain so that you can move around and recover faster. For the first few days, you will receive continuous doses of pain medicine through an **IV PCA pump** or an **epidural pump**. When you get to your room, you will learn how to use the PCA pump, which is attached to your IV line.
- Tell your nurse if pain interferes with your ability to walk or do breathing and coughing exercises. Your dose of medicine can be adjusted to make you feel more comfortable.
- If you experience nausea, ask your nurse for medicine. It is important for your health care team to know if you are having any other reaction to the medicine besides pain relief. Many pain medicines are available, and knowing about any other symptoms you are experiencing will help your doctor prescribe the best medicine for you.

### ***Surgical Site***

Your nurses will regularly check the dressing over your surgical site to make sure there is no bleeding and no sign of infection. The fluid from your drainage tubes will be measured.

### ***Circulation***

- You will wear **SCDs (sequential compression devices)** while you are in bed for the first 24 hours after surgery or longer. Compression devices are inflating/deflating sleeves worn on the legs to improve circulation and prevent blood clots.

**Incentive spirometer:** a small device used in breathing exercises to prevent complications after surgery.

**PCA (patient-controlled analgesia):** provides small continuous doses of pain medicine plus extra doses of pain medicine you can give yourself when you feel you need them.

**Epidural:** a small tube in your back through which you receive continuous doses of pain medicine.

- You will also wear **compression stockings** or **TED hose**, on your legs to help improve your circulation and prevent blood clots. You must wear the stockings while you are in bed. After the stockings are removed exercise your legs every hour between walks. Do **not** allow anyone to massage your calves.

### ***The evening of your surgery***

- Your health care team will check on your progress
- You will be helped to sit on the side of your bed and dangle your feet.

## **Post-surgery**

### ***Each day your health care team will:***

- Weigh you
- Monitor your fluid intake and output
- Inspect your incision, drainage tubes and stoma to make sure everything is healing well.
- Take your vital signs
- Encourage and assist you in getting out of bed to the chair and walking as tolerated, do your coughing and deep breathing exercises, and incentive spirometry.

### **Post-surgery days 1, 2 and 3**

#### ***For the first 3 days after surgery, your health care team:***

- Will draw blood for lab tests
- Will administer IV fluids and medication
- Will instruct you on taking care of your incision
- May remove your pelvic drains during the first few days after surgery

#### ***On post-surgery day 1:***

- Your NG tube may be removed
- You will wear SCDs (sequential compression device) and TED stockings in bed
- You will get out of bed and walk with assistance as tolerated

#### ***On post-surgery day 2:***

- You will walk in the hall 4-5 times
- You will begin a clear liquid diet as tolerated
- You will talk with your health care team about getting ready to go home

#### ***On post-surgery day 3:***

- You will begin taking medication orally
- You will advance to a full liquid diet as tolerated

- You will increase the time you spend in the chair
- You will walk in the halls 4-5 times

## **Post-surgery Days 4 and 5**

### ***Your health care team will:***

- Draw blood for lab tests if needed
- Review your discharge and home care instructions
- Encourage you to walk as much as tolerated and advance to a regular diet

### ***On post-surgery day 4:***

- Your SCDs (sequential compression devices) and TED stockings may be removed if you are ambulating in hallway 4-5 times a day

### ***On post-surgery day 5:***

- The fluids from your IV may be stopped with a **heparin cap** (a small tube left in the vein which allows IV access for administration of medications and fluids if needed)
- If you need fluids again, it will not need to be restarted
- Your central line may be discontinued.
- You may be discharged on this day if your doctor feels you are ready

## ***Going Home***

Usually you will be ready to leave the hospital when:

- You do not have a fever
- Your vital signs are stable and within your normal range
- Your lungs are free of complications
- Your incision is clean, intact, and infection-free
- You are eating a regular diet again
- You are passing gas or have had a bowel movement
- You show an activity level appropriate for your condition (i.e. walking and sitting)
- You learn how to take care of your incision
- You understand instructions for taking prescriptions and other medications at home
- Your pain is under control
- Your doctor feels you are ready



### ***Discharge instructions:***

- You will review instructions in how to take care of yourself at home
- You will schedule follow-up appointments
- You will receive prescriptions for medications before you go home

## **Home Care**

### ***Caring for yourself***

When you go home, be sure to inspect your incision site daily. Report any of the following signs and symptoms to your doctor:

- **Swelling**
- **Increased redness or heat**
- **Separation of the skin**
- **Increased drainage containing pus**
- **A bad odor**
- **Increased pain or tenderness**
- **Temperature of 101° F (38.3° C) or higher**
- **Nausea or vomiting**
- **Dark or foul-smelling urine**
- **Flank pain (flank refers to the fleshy part of the lower back on the side between the ribs and the hip)**

If you have adhesive strips, they will gradually fall off and do not need to be replaced.

When you take a shower, place soap and water **above** the incision and allow it run down over the incision, then rinse and pat dry. The edges of your incision may be slightly red. If redness extends beyond the incision line, contact your doctor.

### ***Daily activities***

Try to get up and walk at least 4 or 5 times per day. This helps to prevent blood clots in the legs. You may walk up and down stairs. If you have any pain in your calves, **do not** rub them. Instead, contact your doctor or nurse for instructions.

Avoid lifting anything heavier than 5 to 10 pounds for 6 weeks after surgery.

Do not drive for at least 2 weeks after surgery. Your doctor will instruct you as to when it's okay to drive again. **Do not drive until you have stopped taking pain medicine.** Riding in a car is okay after surgery. However, during long rides, stop every hour and take a short walk.



### ***Diet***

- Drink 8 8-oz glasses of a variety of fluids each day
- Eat a well-balanced diet with adequate amounts of protein to promote tissue repair
- After you have stopped taking pain medicine, you may occasionally have an alcoholic drink
- Increase your intake of dietary fiber by eating oat bran, barley, beans, fruits and vegetables. This will help prevent constipation.
- You will go home with a stool softener. If your stools are hard or you become constipated, speak with your doctor or nurse.

### ***Sexual activity***

You may resume sexual activity 6 weeks after surgery. Please consult your health care provider if you have any difficulties with sexual ability.

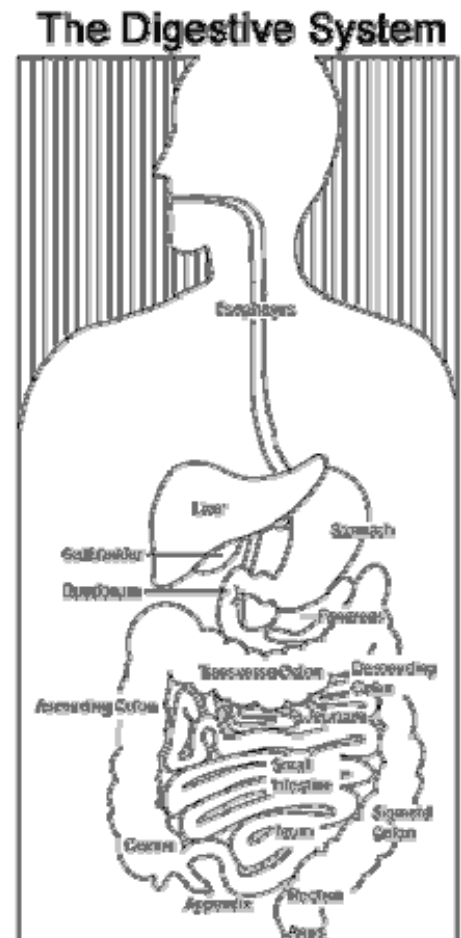
## **Bowel Management Guide**

Surgery, and the treatments to combat cancer, may alter the way your bowel works. These changes can affect how you feel and your ability to go about your daily activities. If you have bowel problems, this guide can help. It explains how your bowel works and what you can do to feel more comfortable.

### ***What is constipation?***

Constipation is the infrequent or difficult passing of hard, dry stool. Causes of constipation include:

- Not drinking enough fluid. Fluid includes liquid or anything that breaks down into liquid, like ice cream and gelatin (Jell-O®).
- A decrease of fiber in the diet. Fiber softens the stool by holding fluid in the intestine.
- Lack of exercise. An active body strengthens the circulation and wave-like movement of the GI tract. These movements decrease when a person remains at rest.



**You should report any of the following symptoms to your doctor:**

- If you have been unable to have a bowel movement or pass gas for more than 5 days
- If you have abdominal pain, cramping, fever and/or nausea or vomiting.

These problems could mean that something is blocking your intestines, and the symptoms are a special concern for patients with a history of intra-abdominal or intestinal cancers.

***What causes gas?***

Gas is a byproduct of digestion of food. Some foods (such as beans, broccoli, and cauliflower) produce more gas than others. Carbonated beverages and chewing gum may also cause gas. It is normal to pass gas 15 times a day. If your rate is much higher than this, keep a record of what you eat and drink. A specific food may be producing the excess gas.

***Treatment of gas***

- Simethicone can provide relief. This product is an over-the-counter drug with many brand names. It helps break large gas bubbles into smaller ones.
- Avoid foods that produce gas. If you have any questions about these, ask your dietitian.

**What You Can Do to Help Control Your Pain**

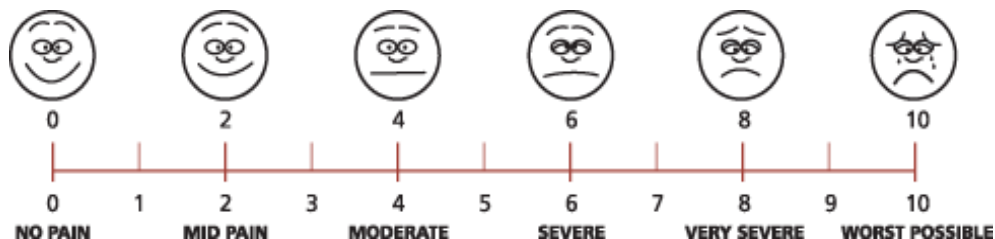
***Pain can be relieved***

There are many different medicines and methods available to control your pain. Pain is usually treated with a type of medicine called **analgesics**. Analgesics are classified into nonopioids (such as acetaminophen) and opioids (such as morphine, hydromorphone and fentanyl). You can buy effective pain relievers without a doctor’s prescription. These pain relievers are called nonprescription or over-the-counter medicine. For other pain relievers a prescription from your doctor is necessary. Ask your doctor, nurse, or pharmacist for advice before you take any medicine for pain. Non-drug treatments such as relaxation techniques, biofeedback, and imagery can be used to treat pain.

***Controlling your pain***

As an active participant in your health care, you can take the following steps:

- Describe exactly how your pain feels. Use words like sharp, radiating, aching, pounding, prickly, tight, deep, stabbing, dull, pinching and tingly
- Report the severity of your pain. On a scale of 0 (zero) to 10 (ten), where 0 is no pain and 10 is the worst pain you can imagine, how would you rate it?



- Take your medication exactly as prescribed. Be sure you understand when and how to take each of them. Report any side effects to your health care provider

### ***Side effects of Pain Medicine***

Many side effects from pain medicine can be prevented. Some side effects can be managed with other medications, by changing the medicine or the dose, or changing the time when the medicine is taken. Common side effects that may occur while taking opioid analgesics are drowsiness, nausea and vomiting, itching and constipation. These side effects, except constipation, will usually go away after a few days as your body adjusts to the medicine. Pain medicine can cause severe constipation if you do not take measures to prevent it. If you are not constipated when you begin taking pain medicine, you may prevent constipation by taking a stool softener and stimulant laxative.

***These are the most common side effects of pain medicine; others may occur. Please report any side effects or problems to your doctor or nurse and ask for help to control them.***

### **Who to call**

Feel free to call if you have a question or concern. There is always somebody available to help you. You may call one of the following two numbers:

#### **The Urology Clinic at Shands Medical Plaza (352)265-8240**

This is the best number to call during regular working hours (8:00 am – 5:00 p.m., Monday – Friday). Please call this number if you need a prescription refill, the nurses or Nurse Practitioner may handle the simple routine questions directly.

#### **The main UF Shands Switchboard (352) 265-0111**

This is the best number to call after 5:00 p.m. during the week, or on weekends and holidays. There is always somebody available at this number, 24 hours a day, 365 days a year. Ask the operator to page the Resident on call for Urology.