About Your Nephrectomy or Adrenalectomy Surgery

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This guide will help you prepare for your nephrectomy (surgery to remove your kidney) or adrenalectomy (surgery to remove your adrenal glands) at Memorial Sloan Kettering (MSK), and help you understand what to expect during your recovery. Read through this guide at least once before your surgery and use it as a reference in the days leading up to your surgery. Bring this guide with you every time you come to MSK, including the day of your surgery. You and your healthcare team will refer to it throughout your care.

About Your Kidneys and Adrenal Glands

**Kidney**

Kidneys are bean-shaped organs about the size of your fist (see Figure 1), located near the middle of your back. You have 2, one on each side. Your kidneys filter your blood, regulate your hormone levels, and regulate your blood pressure.

**Lymph nodes**

Lymph nodes are small oval or round structures found throughout your body. Lymph nodes make and store cells that fight infection. If the cancer spreads, one of the first places it spreads to is usually the lymph nodes. Your doctor may decide to remove some of your lymph nodes and check them for cancer cells. You have many lymph nodes, so your body will not miss these few.

**Adrenal glands**

Adrenal glands produce hormones that help you cope with stress. You have 2 adrenal glands, 1 on top of each kidney (see Figure 2).

**Ureter**

Your ureter is the tube that connects your kidney to your bladder.

**Bladder**

Your bladder stores your urine.
About Your Nephrectomy or Adrenalectomy

The type of surgery you’ll have depends on the size and location of the cancer. Your surgeon will talk with you about the option that is right for you.

- A **partial nephrectomy** is the removal of the part of the kidney that has the cancer and the tissue surrounding it. If necessary, your lymph nodes will also be removed. Some of your kidney will remain in your body.

- A **radical nephrectomy** is the removal of the entire kidney and the tissue that surrounds it. If necessary, your lymph nodes and adrenal gland will also be removed.

- A **nephroureterectomy** is the removal of the entire kidney, surrounding tissue, lymph nodes, the adrenal gland if necessary, all or part of the ureter, and part of the bladder.

- An **adrenalectomy** is the removal of your adrenal glands.

Surgery can be done using different techniques. Your surgeon will talk with you about which options are right for you.

**Laparoscopic or Robotic Surgery**

If you have this kind of surgery, your surgeon will make 3 to 5 small incisions (surgical cuts). Using small tools and a camera, they will remove all or part of your kidney or adrenal gland, depending on the cancer.

**Open Surgery**

If you have this kind of surgery, your surgeon will make 1 incision (surgical cut), usually about 5 inches long. They will remove all or part of your kidney or adrenal gland, depending on the cancer.
The information in this section will help you prepare for your surgery. Read through this section when your surgery is scheduled and refer to it as your surgery date gets closer. It contains important information about what you need to do before your surgery. Write down any questions you have and be sure to ask your doctor or nurse.
Preparing for Your Surgery

You and your healthcare team will work together to prepare for your surgery.

About Drinking Alcohol

The amount of alcohol you drink can affect you during and after your surgery. It’s important that you talk with us about your alcohol intake so that we can plan your care.

- Stopping alcohol suddenly can cause seizures, delirium, and death. If we know you are risk for these complications, we can prescribe medication to help prevent them.

- If you drink alcohol regularly, you may be at risk for other complications during and after surgery. These include bleeding, infections, heart problems, and a longer hospital stay.

Here are things you can do to prevent problems before your surgery:

- Be honest with your healthcare provider about how much alcohol you drink.
- Try to stop drinking alcohol once your surgery is planned. If you develop a headache, nausea, increased anxiety, or cannot sleep after you stop drinking, tell your doctor right away. These are early signs of alcohol withdrawal and can be treated.
- Tell your healthcare provider if you cannot stop drinking.
- Ask us any questions you have about drinking and surgery. As always, all of your medical information will be kept confidential.

About Smoking

People who smoke can have breathing problems when they have surgery. Stopping even for a few days before surgery can help. If you smoke, your nurse will refer you to our Tobacco Treatment Program. You can also reach the program at 212-610-0507.

Help us keep you safe during your surgery by telling us if any of the following statements apply to you, even if you aren’t sure.

- I take a blood thinner. Some examples are heparin, warfarin (Coumadin®), clopidogrel (Plavix®), enoxaparin (Lovenox®), and tinzaparin (Innohep®). There are others, so be sure your doctor knows all the medications you’re taking.
- I take prescription medications, including patches and creams.
- I take over-the-counter medications, herbs, vitamins, minerals, or natural or home remedies.
- I have a pacemaker, automatic implantable cardioverter-defibrillator (AICD), or other heart device.
- I have sleep apnea.
- I have had a problem with anesthesia in the past.
- I am allergic to certain medication(s) or materials, including latex.
- I am not willing to receive a blood transfusion.
- I drink alcohol.
- I smoke.
- I use recreational drugs.
About Sleep Apnea

Sleep apnea is a common breathing disorder that causes a person to stop breathing for short periods of time while sleeping. The most common type is obstructive sleep apnea (OSA). With OSA, the airway becomes completely blocked during sleep. It can cause serious problems during and after surgery.

Please tell us if you have sleep apnea or if you think you might have it. If you use a breathing machine (such as a CPAP) for sleep apnea, bring it with you the day of your surgery.

Within 30 Days of Your Surgery

Presurgical Testing (PST)

Before your surgery, you will have presurgical testing (PST). The date, time, and location of your PST appointment will be printed on the appointment reminder from your surgeon’s office. You can eat and take your usual medications the day of your PST appointment.

During your appointment, you will meet with a nurse practitioner who works closely with anesthesiology staff (doctors and specialized nurses who will give you medication to put you to sleep during your surgery). Your nurse practitioner will review your medical and surgical history with you. You will have tests, including an electrocardiogram (EKG) to check your heart rhythm, a chest x-ray, blood tests, and any other tests necessary to plan your care. Your nurse practitioner may also recommend you see other healthcare providers.

Your nurse practitioner will talk with you about which medications you should take the morning of your surgery.

Bring the following with you to your PST appointment:

- A list of all the medications you are taking, including patches and creams.
- Results of any tests done outside of MSK, such as a cardiac stress test, echocardiogram (echo), or carotid doppler study.
- The name(s) and telephone number(s) of your doctor(s).

Complete a Health Care Proxy Form

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 advance directive, bring it with you to your next appointment.

Identify Your Caregiver

Your caregiver plays an important role in your care. You and your caregiver will learn about your surgery from your healthcare provider. Your caregiver will need to be present after your surgery for the discharge instructions so that they are able to help you care for yourself at home. Your caregiver will also need to take you home after your surgery.
Do Breathing and Coughing Exercises

Practice taking deep breaths and coughing before your surgery. You will be given an incentive spirometer to help expand your lungs. For more information, read How to Use Your Incentive Spirometer, located in the “After Your Surgery” section of this guide. If you have any questions, ask your nurse or respiratory therapist.

Exercise

Try to do aerobic exercise every day, such as walking at least 1 mile, swimming, or biking. If it’s cold outside, use stairs in your home or go to a mall or shopping market. Exercising will help your body get into its best condition for your surgery and make your recovery faster and easier.

Eat a Healthy Diet

Eat a well-balanced, healthy diet before your surgery. If you need help with your diet, talk with your doctor or nurse about meeting with a dietitian.

10 Days Before Your Surgery

Stop Taking Vitamin E

If you take vitamin E, stop taking it 10 days before your surgery, because it can cause bleeding. For more information, read Common Medications Containing Aspirin and Other Nonsteroidal Anti-inflammatory Drugs (NSAIDs), located in this section.

Purchase Hibiclens® Skin Cleanser

Hibiclens is a skin cleanser that kills germs for 24 hours after using it. Showering with Hibiclens before surgery will help reduce your risk of infection after surgery. You can buy Hibiclens at your local pharmacy without a prescription.

7 Days Before Your Surgery

Stop Taking Certain Medications

If you take aspirin, ask your surgeon if you should continue. Aspirin and medications that contain aspirin can cause bleeding. For more information, read Common Medications Containing Aspirin and Other Nonsteroidal Anti-inflammatory Drugs (NSAIDs), located in this section.

Stop Taking Herbal Remedies and Supplements

Stop taking herbal remedies or supplements 7 days before your surgery. If you take a multivitamin, talk with your doctor or nurse about whether you should continue. For more information, read Herbal Remedies and Cancer Treatment, located in this section.
2 Days Before Your Surgery

Stop Taking Certain Medications

Stop taking nonsteroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen (e.g., Advil®, Motrin®), and naproxen (e.g., Aleve®). These medications can cause bleeding. For more information, read Common Medications Containing Aspirin and Other Nonsteroidal Anti-inflammatory Drugs (NSAIDs), located in this section.

1 Day Before Your Surgery

Note the Time of Your Surgery

A clerk from the Admitting Office will call you after 2:00 PM the day before your surgery. The clerk will tell you what time you should arrive for your surgery. If you’re scheduled for surgery on a Monday, you will be called on the Friday before. If you don’t receive a call by 7:00 PM, call 212-639-5014.

Use this area to write in information when the clerk calls:

Date______________    Time______________

Eat a Light Diet

Eat a light diet, such as small sandwiches, eggs, toast, crackers, soup, or cereal. Limit the amount of dairy products, and avoid fried foods and foods with a lot of seasoning.

Shower with Hibiclens

The night before your surgery, shower using Hibiclens. To use Hibiclens, open the bottle and pour some solution into your hand or a washcloth. Move away from the shower stream to avoid rinsing off the Hibiclens too soon. Rub it gently over your body from your neck to your waist and rinse.

Don’t let the solution get into your eyes, ears, mouth, or genital area. Don’t use any other soap. Dry yourself off with a clean towel after your shower.

Sleep

Go to bed early and get a full night’s sleep.
Instructions for eating and drinking before your surgery

- Do not eat anything after midnight the night before your surgery. This includes hard candy and gum.
- Between midnight and up until 2 hours before your scheduled arrival time, you may drink a total of 12 ounces of water (see figure).
- Starting 2 hours before your scheduled arrival time, do not eat or drink anything. This includes water.

The Morning of Your Surgery

Shower with Hibiclens

Shower using Hibiclens just before you leave. Use the Hibiclens the same way you did the night before. Don’t use any other soap. Don’t put on any lotion, cream, powder, deodorant, makeup, or perfume after your shower.

Take Your Medications as Instructed

If your doctor or nurse practitioner instructed you to take certain medications the morning of your surgery, take only those medications with a sip of water. Depending on what medications you take and the surgery you’re having, this may be all, some, or none of your usual morning medications.

Things to Remember

- Don’t put on any lotion, cream, deodorant, make-up, powder, or perfume.
- Don’t wear any metal objects. Remove all jewelry, including body piercings. The equipment used during your surgery can cause burns if it touches metal.
- Leave valuables, such as credit cards, jewelry, or your checkbook, at home.
- Before you’re taken into the operating room, you will need to remove your glasses, hearing aids, dentures, prosthetic device(s), wig, and religious articles such as a rosary.
- If you wear contact lenses, wear your glasses instead.

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What to Bring

- A pair of loose-fitting pants (sweat pants are a good choice).
- Sneakers that lace up. You may have some swelling in your feet. Lace-up sneakers can accommodate this swelling.
- Only the money you may need for a newspaper, bus, taxi, or parking.
- Your portable music player, if you choose. However, someone will need to hold this item for you when you go into surgery.
- Your incentive spirometer, if you have one.
- Your breathing machine for sleep apnea (such as your CPAP), if you have one.
- A case for your personal items, such as eyeglasses, hearing aid(s), dentures, prosthetic device(s), wig, and religious articles.
- Your Health Care Proxy form, if you have completed one.
- This guide. Your healthcare team will use this guide to teach you how to care for yourself after your surgery.

Once You’ve Arrived for Your Surgery

You will be asked to state and spell your name and birth date many times. This is for your safety. People with the same or similar names may be having surgery on the same day.

Get Dressed for Surgery

When it is time to change for surgery, you will get a hospital gown, robe, and non-skid socks to wear.

Meet With Your Nurse

You will meet with your nurse before your surgery. Tell your nurse the dose of any medications (including patches and creams) you took after midnight and the time you took them.

Marking Your Surgical Site

In addition to being asked your name and birth date, you may also be asked the name of your surgeon, what operation you are having, and which side is being operated on. Your surgeon or another member of the surgical
team will use a marker to initial the site on your body that will be operated on. This is for your safety; it is to make sure that all members of the surgical staff are clear about the plan for your surgery.

Meet With Your Anesthesiologist

Your anesthesiologist will:

• Review your medical history with you.
• Talk with you about your comfort and safety during your surgery.
• Talk with you about the kind of anesthesia (medication to make you sleep) you will receive.
• Answer any questions you may have about your anesthesia.

Prepare for Surgery

Once your nurse has seen you, 1 or 2 visitors can keep you company as you wait for your surgery to begin. When it’s time for your surgery, your visitor(s) will be shown to the waiting area.

You will either walk into the operating room or you be taken in on a stretcher. A member of the operating room team will help you onto the operating bed. Compression boots will be placed on your lower legs. These gently inflate and deflate to help circulation in your legs.

Your anesthesiologist will place an intravenous (IV) line into a vein, usually in your arm or hand. The IV line will be used to give you fluids and anesthesia during your surgery.
Common Medications Containing Aspirin and Other Nonsteroidal Anti-inflammatory Drugs (NSAIDs)

This information will help you identify medications that contain aspirin and other nonsteroidal anti-inflammatory drugs (NSAIDs). It’s important to stop these medications before many cancer treatments.

Aspirin, other NSAIDs (such as ibuprofen), and vitamin E can increase your risk of bleeding during cancer treatment. These medications affect your platelets, which are blood cells that clot to prevent bleeding.

Read the section “Examples of Medications” to see if your medications contain aspirin, other NSAIDs, or vitamin E.

If you take aspirin, medications that contain aspirin, other NSAIDs, or vitamin E, tell your doctor or nurse. They will tell you if you need to stop taking these medications before your treatment. You will also find instructions in the information about the treatment you’re having.

Before Your Surgery

If you’re having surgery, follow the instructions below.

- Stop taking medications that contain vitamin E 10 days before your surgery or as directed by your doctor.

- Stop taking medications that contain aspirin 7 days before your surgery or as directed by your doctor. If you take aspirin because you’ve had a problem with your heart or you’ve had a stroke, be sure to talk with your doctor.
before you stop taking it.

- Stop taking NSAIDs 48 hours before your surgery or as directed by your doctor.

**Before Your Radiology Procedure**

If you’re having a radiology procedure (including Interventional Radiology, Interventional Mammography, and General Radiology), follow the instructions below.

- Stop taking medications that contain vitamin E 10 days before your procedure, or as directed by your doctor.
- If your doctor tells you to stop taking aspirin, stop taking it 5 days before your procedure or as directed by your doctor. If you take aspirin because you’ve had a problem with your heart or you’ve had a stroke, be sure talk with your doctor before you stop taking it.
  - If you take low dose aspirin (81 mg), you may not need to stop it before your procedure. Your doctor will tell you if you should stop taking low dose aspirin.
- Stop taking NSAIDs 24 hours before your procedure or as directed by your doctor.

**Before and During Your Chemotherapy**

Chemotherapy can decrease your platelet count, which can increase your risk of bleeding. Whether you’re just starting chemotherapy or you’ve been receiving it, talk with your doctor or nurse before taking aspirin or NSAIDs.

**Examples of Medications**

Medications are often called by their brand name, which can make it hard to know their ingredients. To help you identify medications that contain aspirin, other NSAIDs, and vitamin E, please review the lists below.

These lists include the most common products, but there are others. Check with your healthcare provider if you aren’t sure. Always be sure your doctor knows all
the medications you’re taking, both prescription and over-the-counter.

### Common medications that contain aspirin

| Common Medications Containing Aspirin and Other Nonsteroidal Anti-inflammatory Drugs (NSAIDs) 3 of 6 |
| --- | --- | --- | --- | --- | --- |
| **Aggrenox** | Bayer® (most formulations) | Equagesic Tablets | Isolly® | Panasal® | Synalgos®-DC Capsules |
| **Alka Seltzer** | BC® Powder and Cold Formulations | Equazine® | Lanorinal® | Percodan® Tablets | Tenol-Plus® |
| **Anacin** | Bufferin® (most formulations) | Excedrin® Extra-Strength Analgesic Tablets and Caplets | Lortab® ASA Tablets | Persistin® | Trigesic® |
| **Arthritis Pain Formula** | Buffets II® | Excedrin® Migraine | Magnaprin® Tablets | Robaxisal® Tablets | Talwin® Compound |
| **Arthritis Foundation Pain Reliever** | Buffex® | Fiorgen® | Marnal® | Roxiprin® | Vanquish® Analgesic Caplets |
| **ASA Enseals** | Cama® Arthritis Pain Reliever (most formulations) | Fiorinal® | Micrainin® | Saleto® | Wesprin® Buffered |
| **ASA Suppositories** | COPE® | Fiortal® | Momentum® | Salocol® | Zee-Seltzer® |
| **Ascriptin® and Ascriptin A/D®** | Dasin® | Gelpirin® | Norgesic Forte® (most formulations) | Sodol® | ZORprin® |
| **Aspergum®** | Easprin® | Genprin® | Norwich® Aspirin | Soma® Compound Tablets |
| **Asprimox®** | Ecotrin® (most formulations) | Gensan® | PAC® Analgesic Tablets | Soma® Compound with Codeine Tablets |
| **Axotal®** | Empirin® Aspirin (most formulations) | Heartline® | Orphengesic® | St. Joseph® Adult |
### Common medications that are NSAIDs that don’t contain aspirin

<table>
<thead>
<tr>
<th>Advil®</th>
<th>Celecoxib</th>
<th>Flurbiprofen</th>
<th>Meclofenamate</th>
<th>Nalfon®</th>
<th>Ponstel®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advil Migraine®</td>
<td>Children’s Motrin®</td>
<td>Genpril®</td>
<td>Mefenamic Acid</td>
<td>Naproxen</td>
<td>Relafen®</td>
</tr>
<tr>
<td>Aleve®</td>
<td>Clinoril®</td>
<td>Ibuprofen</td>
<td>Meloxicam</td>
<td>Naprosyn®</td>
<td></td>
</tr>
<tr>
<td>Anaprox DS®</td>
<td>Daypro®</td>
<td>Indomethacin</td>
<td>Menadol®</td>
<td>Nuprin®</td>
<td>Saleto 200®</td>
</tr>
<tr>
<td>Ansaid®</td>
<td>Diclofenac</td>
<td>Indocin®</td>
<td>Midol®</td>
<td>Orudis®</td>
<td>Sulindac</td>
</tr>
<tr>
<td>Arthrotec®</td>
<td>Etodolac®</td>
<td>Ketoprofen</td>
<td>Mobic®</td>
<td>Oxaprozin</td>
<td>Toradol®</td>
</tr>
<tr>
<td>Bayer Select Pain Relief Formula Caplets</td>
<td>Feldene®</td>
<td>Ketorolac</td>
<td>Motrin®</td>
<td>PediaCare Fever®</td>
<td>Voltaren®</td>
</tr>
<tr>
<td>Celebrex®</td>
<td>Fenoprofen</td>
<td>Lodine®</td>
<td>Nabumetone</td>
<td>Piroxicam</td>
<td></td>
</tr>
</tbody>
</table>

### Products with Vitamin E

Most multivitamins contain vitamin E. If you take a multivitamin be sure to check the label. The following products contain vitamin E:

<table>
<thead>
<tr>
<th>Amino-Opt-E</th>
<th>Aquavit</th>
<th>E-400 IU</th>
<th>E complex-600</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquasol E</td>
<td>D’alpha E</td>
<td>E-1000 IU Softgels</td>
<td>Vita-Plus E</td>
</tr>
</tbody>
</table>

### About Acetaminophen

Acetaminophen (Tylenol®) is generally safe to take during your cancer treatment. It doesn’t affect platelets, so it won’t increase your chance of bleeding. However, talk with your doctor before taking acetaminophen if you’re getting chemotherapy.
The following common medications contain acetaminophen.

<table>
<thead>
<tr>
<th>Acephen®</th>
<th>Datril®</th>
<th>Lortab®</th>
<th>Roxicet®</th>
<th>Vicodin®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aceta® with Codeine</td>
<td>Di-Gesic®</td>
<td>Naldegesic®</td>
<td>Talacen®</td>
<td>Wygesic®</td>
</tr>
<tr>
<td>Acetaminophen with Codeine</td>
<td>Esgic®</td>
<td>Norco®</td>
<td>Tempra®</td>
<td>Zydone®</td>
</tr>
<tr>
<td>Aspirin-Free Anacin®</td>
<td>Excedrin P.M.®</td>
<td>Panadol®</td>
<td>Tylenol®</td>
<td></td>
</tr>
<tr>
<td>Arthritis Pain Formula® Aspirin-Free</td>
<td>Fiorcet®</td>
<td>Percocet®</td>
<td>Tylenol® with Codeine No. 3</td>
<td></td>
</tr>
<tr>
<td>Darvocet-N 100®</td>
<td>Lorct®</td>
<td>Repan</td>
<td>Vanquish®</td>
<td></td>
</tr>
</tbody>
</table>
Herbal Remedies and Cancer Treatment

This information explains herbal remedies and how they can affect your cancer treatment.

One week before you have surgery or start chemotherapy or radiation therapy, you must stop taking any herbal or botanical home remedies or other dietary supplements. This is because they can:

- Interact with your other medications.
- Increase or lower your blood pressure.
- Thin your blood and increase your risk of bleeding.
- Make radiation therapy less effective.
- Increase the effects of sedation or anesthesia (medications to make you sleepy).

You can continue to use herbs in your food and drinks, such as spices in cooking, but you must stop taking them in supplemental form before your treatment. Herbal supplements are stronger than the herbs you would use in cooking.

Common Herbal Supplements and Their Effects

These are some commonly used herbs and their side effects on cancer treatments.

**Echinacea**

- Can cause an allergic reaction, such as a rash or difficulty breathing.
- Can lower the effects of medications used to weaken the immune system.
Garlic

- Can lower your blood pressure, fat, and cholesterol levels.
- Can increase your risk of bleeding.

Gingko (also known as *Gingko biloba*)

- Can increase your risk of bleeding.

Ginseng

- Can lower the effects of sedation or anesthesia.
- Can increase your risk of bleeding.
- Can lower your blood glucose (sugar) level.

Turmeric

- Can make chemotherapy less effective.

St. John’s Wort

- Can interact with medications given during surgery.
- Can make your skin more sensitive to radiation or laser treatment.

Valerian

- Can increase the effects of anesthesia or sedation.

Herbal formulas

- Herbal formulas contain different herbs. We don’t know their side effects. You must also stop taking these products 1 week before treatment. Do not start taking herbal formulas again until your doctor tells you it’s safe.

This information does not cover all herbal remedies or possible side effects. Speak with your healthcare provider if you have any questions or concerns.

For more information about herbs and botanicals, visit the Memorial Sloan Kettering (MSK) Integrative Medicine Service website at www.aboutherbs.com.
The information in this section will tell you what to expect after your surgery, both during your stay and after you leave. You will learn how to safely recover from your surgery. Write down any questions you have and be sure to ask your doctor or nurse.
What to Expect

When you wake up after your surgery, you will be in the Post-Anesthesia Care Unit (PACU) or your recovery room. You will receive oxygen through a thin tube called a nasal cannula that rests below your nose. A nurse will be monitoring your body temperature, pulse, blood pressure, and oxygen levels.

You may have a urinary catheter (thin, flexible tube). The urinary catheter, also called a Foley catheter, drains the urine from your bladder into a bag.

You may also have a Jackson Pratt® drain. The drain is used to collect extra fluid to decrease your risk for infection and help your body heal.

Your nurse will tell you how to recover from your surgery. Below are examples of ways you can help yourself recover safely.

- It is important to walk around after surgery. Walking every 2 hours is a good goal. This will help prevent blood clots in your legs.

- Use your incentive spirometer. This will help your lungs expand, which prevents pneumonia. When using your incentive spirometer or other breathing exercises, it may help to splint your incision. To do this, hold a pillow or blanket against the incision sites. This will reduce movement in your muscles. For more information, read How to Use Your Incentive Spirometer, located in this section.

Commonly Asked Questions

**Will I have pain after my surgery?**

You will have pain on the side where you had your surgery and in area of your incisions. Your doctor and nurse will ask you about your pain often. You will get medications to control your pain and keep you comfortable. There are different ways that these medications can be given.

- **Nerve block:** Some people may get a nerve block before or during surgery. In a nerve block, your doctor injects medication into some of your nerves to reduce pain after surgery.

- **Intravenous (IV) medications:** Some people may get pain medication straight into a vein through their IV line.

- **Oral medications:** Some people may get oral pain medications (medication that’s swallowed, such as pills).

If you had an open nephrectomy, you will have patient-controlled analgesia (PCA). See the insert titled Patient-Controlled Analgesia (PCA) located in this section for more information.

If your pain is not relieved, tell your doctor or nurse. Your goal is to feel comfortable enough to increase your activity every day. The pain will slowly get better as your body heals.

You will be given a prescription for pain medication before you leave the hospital. Pain medication may cause constipation (having fewer bowel movements than what is normal for you).

**How can I prevent constipation?**

- Go to the bathroom at the same time every day. Your body will get used to going at that time.
• If you feel the urge to go, don’t put it off. Try to use the bathroom 5 to 15 minutes after meals.

• After breakfast is a good time to move your bowels. The reflexes in your colon are strongest at this time.

• Exercise, if you can. Walking is an excellent form of exercise.

• Drink 8 (8-ounce) glasses (2 liters) of liquids daily, if you can. Drink water, juices, soups, ice cream shakes, and other drinks that don’t have caffeine. Drinks with caffeine, such as coffee and soda, pull fluid out of the body.

• Slowly increase the fiber in your diet to 25 to 35 grams per day. Fruits, vegetables, whole grains, and cereals contain fiber. If you have an ostomy or have had recent bowel surgery, check with your doctor or nurse before making any changes in your diet.

• Both over-the-counter and prescription medications are available to treat constipation. Start with 1 of the following over-the-counter medications first:
  − Docusate sodium (Colace®) 100 mg. Take _____ capsules _____ times a day. This is a stool softener that causes few side effects. Do not take it with mineral oil.
  − Polyethylene glycol (MiraLAX®) 17 grams daily.
  − Senna (Senokot®) 2 tablets at bedtime. This is a stimulant laxative, which can cause cramping.

• If you haven’t had a bowel movement in 2 days, call your doctor or nurse

**Will I be able to eat?**

The day of your surgery, you will only drink liquids. The first day after surgery, you can have a light breakfast and light foods during the day (sandwich, yogurt, soup, and liquids). Drinking plenty of liquids is important during the first few days after your surgery. Soups and broth are good choices until you regain your appetite.

When you go home, you can start eating normally again. We recommend eating 3 to 6 meals a day, depending what feels the most comfortable for you. Because you might have fewer red blood cells for the first couple months after your surgery, you should eat foods high in iron, such as:

• Red meat
• Cooked clams and oysters
• All types of liver
• Iron enriched baked goods and cereals
• Legumes and spinach

You should also eat foods high in protein, such as chicken, fish, and eggs. Protein will help you heal after your surgery. For more tips on increasing the amount of calories and protein in your diet, ask your nurse for the resource *Eating Well During and After Your Cancer Treatment.*

**Can I shower?**

Yes. Taking a warm shower is relaxing and can help decrease muscle aches. Use soap when you shower and gently wash your incision. Pat the areas dry with a towel after showering, and leave your incision uncovered.
(unless there is drainage). Call your doctor if you see any redness or drainage from your incision.

Do not take tub baths until you discuss it with your doctor at the first appointment after your surgery.

**How do I care for my incisions?**

The location of your incision will depend on the type of surgery you had. It’s normal for the skin below your incision to feel numb, because some of the nerves in the area were cut. The numbness will fade over time.

- You and your caregiver should look at your incision with your nurse before you leave the hospital so you know what it looks like.

- If any liquid is draining from your incision, write down the amount and color. Call your doctor’s office and speak with the nurse about any drainage from your incision.

Change your bandages at least once a day and more often if they become wet with drainage. When there’s no longer any drainage coming from your incision, they can be left uncovered.

If you go home with Steri-Strips™ on your incision, they will loosen and fall off by themselves. If they haven’t fallen off within 10 days, you may remove them.

If you go home with Dermabond® glue over your sutures (stitches), it will also loosen and peel off, similarly to the Steri-Strips.

**Will I have any tubes or drains when I go home?**

The urinary catheter is usually removed the day after surgery, but in some situations the catheter is left in longer. If you go home with the catheter still in, your nurse will teach you how to take care of it and will give you a resource called *Caring for Your Urinary (Foley) Catheter*.

You may also have your Jackson Pratt drain. Your doctor will decide when to remove the drain, depending on how much fluid is coming out. If you will need to go home with the drain still in, your nurse will teach you how to care for it and insert information into this guide called *Caring for Your Jackson-Pratt Drainage System*.

**When can I resume driving?**

Check with your doctor before you start driving.

**When can I go back to work?**

Most people return to work 3 to 4 weeks after the surgery. Some people may return to work earlier, with light activity only. If your work requires heavy physical activity, you may need more time. You may be comfortable with desk or office work. Talk with your doctor about when it would be safe to return to work.

**When can I lift heavy objects?**

Check with your doctor before you do any heavy lifting. Normally, you shouldn’t lift anything heavier than 10 pounds (4.6 kilograms) for at least 6 weeks after your surgery. Ask your doctor how long you should avoid heavy lifting.
**What exercises can I do?**

Exercise will help you gain strength and feel better. Walking and stair climbing are excellent forms of exercise. Gradually increase the distance you walk. Climb stairs slowly, resting or stopping as needed. Ask your doctor or nurse before starting more strenuous exercises.

**When is my first appointment after my surgery?**

Your first appointment after surgery will be in 4 weeks. Your nurse will give you instructions on how to make this appointment, including the phone number to call.

During this appointment your doctor will discuss your final pathology results, any problems with your recovery, and any further treatment that you may need.

**How can I cope with my feelings?**

After surgery for a serious illness, you may have new and upsetting feelings. Many people say they felt weepy, sad, worried, nervous, irritable, and angry at one time or another. You may find that you cannot control some of these feelings. If this happens, it’s a good idea to seek emotional support.

The first step in coping is to talk about how you feel. Family and friends can help. Your nurse, doctor, and social worker can reassure, support, and guide you. It is always a good idea to let these professionals know how you, your family, and your friends are feeling emotionally. Many resources are available to patients and their families. Whether you are in the hospital or at home, the nurses, doctors, and social workers are here to help you and your family and friends handle the emotional aspects of your illness.

**What if I have other questions?**

If you have any questions or concerns, please talk with your doctor or nurse. You can reach them Monday through Friday from 9:00 AM to 5:00 PM at the numbers listed below.

Doctor: ________________________________ Telephone: ________________________________

Nurse: ________________________________ Telephone: ________________________________

After 5:00 PM, during the weekend, and on holidays, please call 212-639-2000 and ask for the doctor on call for your doctor.

**Call your doctor immediately if you:**

- Have swelling or tenderness in your calves or thighs
- Have one leg that is more swollen than the other
- Become short of breath
- Cough up blood
- Have a temperature of 101° F (38.3° C) or higher
- Have blood in your urine
How to Use Your Incentive Spirometer

This information will help you learn how to use your incentive spirometer.

About Your Incentive Spirometer

An incentive spirometer is a device that will expand your lungs by helping you to breathe more deeply and fully. The parts of your incentive spirometer are labeled in Figure 1.

![Incentive Spirometer Diagram]

Figure 1. Incentive Spirometer

Use your incentive spirometer after your surgery and do your deep breathing and coughing exercises. This will help keep your lungs active throughout your
How To Use Your Incentive Spirometer

Here is a video demonstrating how to use your incentive spirometer:

Please visit mskcc.org/pe/incentive_spirometer to watch this video.

Setting up your incentive spirometer

The first time you use your incentive spirometer, you will need to take the flexible tubing with the mouthpiece out of the bag. Stretch out the tubing and connect it to the outlet on the right side of the base (see Figure 1). The mouthpiece will be attached to the other end of the tubing.

Using your incentive spirometer

When you are using your incentive spirometer, make sure to breathe through your mouth. If you breathe through your nose the incentive spirometer will not work properly. You can plug your nose if you have trouble.

If you feel dizzy at any time, stop and rest. Try again at a later time.

To use your incentive spirometer, follow the steps below.

1. Sit upright in a chair or in bed. Hold the incentive spirometer at eye level.
   - If you had surgery on your chest or abdomen (belly), hug or hold a pillow to help splint or brace your incision (surgical cut) while you’re using the incentive spirometer. This will help decrease pain at your incision.

2. Put the mouthpiece in your mouth and close your lips tightly around it. Slowly breathe out (exhale) completely.

3. Breathe in (inhale) slowly through your mouth as deeply as you can. As you take the breath, you will see the piston rise inside the large column. While the piston rises, the indicator on the right should move upwards. It should stay in between the 2 arrows (see Figure 1).

4. Try to get the piston as high as you can, while keeping the indicator
between the arrows.

- If the indicator does not stay between the arrows, you are breathing either too fast or too slowly.

5. When you get it as high as you can, hold your breath for 10 seconds, or as long as possible. While you’re holding your breath, the piston will slowly fall to the base of the spirometer.

6. Once the piston reaches the bottom of the spirometer, breathe out slowly through your mouth. Rest for a few seconds.

7. Repeat 10 times. Try to get the piston to the same level with each breath.

8. After each set of 10 breaths, try to cough. Holding a pillow over your incision, as needed. Coughing will help loosen or clear any mucus in your lungs.

Repeat these steps every hour that you are awake.

Cover the mouthpiece of the incentive spirometer when you are not using it.
Patient-Controlled Analgesia (PCA)

This information will help you understand what patient-controlled analgesia (PCA) is and how to use your PCA pump.

PCA helps you control your pain by letting you give yourself pain medication. It uses a computerized pump to deliver pain medication into your vein (intravenous, or IV PCA) or into your epidural space, which is in your spine (see Figure 1). Whether you have an IV PCA or an epidural PCA depends on what you and your doctor decide is right for you.

PCA is not right for everyone. Some people may not be able to use PCA. Tell your doctor if you have weakness in your hands and think you may have trouble pushing the PCA button. Also, before you get PCA, tell your doctor if you have sleep apnea. This may affect the way we prescribe your medication. People who are confused or cannot follow these instructions should not use PCA.

Using the PCA

To give yourself pain medication, press the button attached to the pump when you have pain. The pump will deliver a safe dose that your doctor has prescribed.

Only you should push the PCA button. **Family and friends should never push the button.**
The pump can be programmed to deliver your medication in 2 ways:

- As needed. You get your pain medication only when you press the button. It will not allow you to get more medication than prescribed. The pump is set to allow only a certain number of doses per hour.

- Continuous. You get your pain medication at a constant rate all the time. This can be combined with the as needed mode. That allows you to take extra doses safely if you’re having pain.

Tell your doctor if your PCA is not helping with your pain. Also, tell your doctor if your pain changes, such as if it gets worse, feels different than before, or you feel pain in a new place. Your doctor may be able to change the medication to one that may work better for you.

**Side Effects**

Pain medication delivered by the PCA can have side effects. Tell your doctor or nurse if you have any of these problems:

- Constipation
- Nausea or vomiting
- Dry mouth
- Itching
- Changes in your vision, such as seeing things that aren’t there
- Drowsiness, dizziness, or confusion
- Weakness, numbness, or tingling in your arms or legs
- Difficulty urinating
- Any other side effects or problems

Your doctor may be able to give you a different medication that has fewer side effects.
Constipation

This information describes the signs, causes, prevention, and treatment of constipation.

The normal length of time between bowel movements varies from person to person, but generally going 3 days without a bowel movement is too long. If you are having fewer bowel movements than what is normal for you, you are constipated. Other signs include having difficulty passing stool (feces), hard stools, and being unable to empty your bowel completely.

Causes of Constipation

- Medications, such as:
  - Pain medication
  - Chemotherapy
  - Antiemetics (medications to control nausea)
  - Antidepressants
  - Anticonvulsants
  - Blood pressure medication
  - Antihistamines (allergy medicine)
  - Antacids
  - Dietary supplements, such as iron and calcium
- Ignoring the urge to have a bowel movement
- Not having enough time or privacy to use the toilet
- Not moving around or walking enough
- Not drinking enough liquids
- Not eating enough fiber
• Age

• Illnesses, such as:
  ○ Diabetes
  ○ Depression
  ○ Diverticulosis
  ○ Parkinson disease
  ○ Hypothyroidism
  ○ Hypercalcemia
  ○ Spinal cord compression
  ○ Intestinal obstruction

Preventing and Treating Constipation

• Go to the bathroom at the same time everyday. Your body will get used to going at that time.

• If you feel the urge to go, do not put it off. Try to use the bathroom 5 to 15 minutes after meals.

• After breakfast is a good time to move your bowels because the reflexes in your colon are strongest then.

• Exercise if you can; walking is an excellent form of exercise.

• Drink 8 (8-ounce) glasses (2 liters) of liquids daily, if you can. Drink water, juices, soups, ice cream shakes, and other drinks that do not have caffeine. Beverages with caffeine, such as coffee and soda, pull fluid out of the body.

• Slowly increase the fiber in your diet to 25 to 35 grams per day. Fruits, vegetables, whole grains, and cereals contain fiber. If you have an ostomy or have had recent bowel surgery, check with your doctor or nurse before making any changes in your diet.

• Both over the counter and prescription medications are available to treat constipation. Start with 1 of the following over the counter medications first:
Docusate sodium (Colace®) 100 mg. Take ______ capsules ______ times a day. This is a stool softener that causes few side effects. Do not take it with mineral oil.

Polyethylene glycol (MiraLAX®) 17 grams daily.

Senna (Senokot®) 2 tablets at bedtime. This is a stimulant laxative, which can cause cramping.

Bulk-forming laxatives, such as psyllium (Metamucil®, Fiberall®, Perdiem®), polycarbophil (Fibercon®), and methylcellulose (Citrucel®) can also helpful when taken with 8 ounces of fluid. Do not use these if your constipation is due to pain medication. Use caution if you are unable to get out of bed or if you are only able to have a limited amount of liquids everyday. If you have strictures or a partial blockage in your intestines, talk with your doctor before trying bulk-forming laxatives.

- If these medications do not help, talk with your doctor or nurse. He or she may adjust the medication, suggest others, or your doctor might recommend prescription medication.
- Do not use suppositories or enemas unless your doctor or nurse tells you to.

**Call Your Doctor or Nurse if:**

- You have not had a bowel movement for 2 days.
- You have diarrhea after taking any of the medications listed above. Do not take any medication to manage the diarrhea without speaking to your doctor or nurse first
- You have any questions or concerns.
This section contains a list of MSK support services, as well as the resources that were referred to throughout this guide. These resources will help you prepare for your surgery and recover safely. Write down any questions you have and be sure to ask your doctor or nurse.
MSK Resources

**Anesthesia**
212-639-6840
Call with any questions about anesthesia.

**Blood Donor Room**
212-639-7643
Call for more information if you are interested in donating blood or platelets.

**Bobst International Center**
888-675-7722
MSK welcomes patients from around the world. If you are an international patient, call for help coordinating your care.

**Chaplaincy Service**
212-639-5982
At MSK, our chaplains are available to listen, help support family members, pray, contact community clergy or faith groups, or simply be a comforting companion and a spiritual presence. Anyone can request spiritual support, regardless of formal religious affiliation. The interfaith chapel is located near the main lobby of Memorial Hospital, and is open 24 hours a day. If you have an emergency, please call the hospital operator and ask for the chaplain on call.

**Counseling Center**
646-888-0200
Many people find that counseling helps them. We provide counseling for individuals, couples, families, and groups, as well as medications to help if you feel anxious or depressed.

**Integrative Medicine Service**
646-888-0800
Offers patients many services to complement traditional medical care, including music therapy, mind/body therapies, dance and movement therapy, yoga, and touch therapy.

**Look Good Feel Better Program**
800-227-2345
Learn techniques to help you feel better about your appearance by taking a workshop or visiting the program online at www.lookgoodfeelbetter.org.

**Patient Billing**
646-227-3378
Call Patient Billing with any questions regarding preauthorization with your insurance company. This is also called preapproval.

**Patient Representative Office**
212-639-7202
Call if you have any questions about the Health Care Proxy Form or if you have any concerns about your care.

**Patient-to-Patient Support Program**
212-639-5007
You may find it comforting to speak with a cancer survivor or caregiver who has been through a similar treatment. Through our Patient-to-Patient Support Program, we are able to offer you a chance to speak with former patients and caregivers.
Perioperative Clinical Nurse Specialist
212-639-5935
Call if you have any questions about MSK releasing any information while you are having surgery.

Private Nursing Options
212-639-6892
You may request private nurses or companions. Call for more information.

Resources For Life After Cancer (RLAC) Program
646-888-8106
At MSK, care doesn’t end after active treatment. The RLAC Program is for patients and their families who have finished treatment. This program has many services, including seminars, workshops, support groups, counseling on life after treatment, and help with insurance and employment issues.

Social Work
212-639-7020
Social workers help patients, family, and friends deal with issues that are common for cancer patients. They provide individual counseling and support groups throughout the course of treatment, and can help you communicate with children and other family members. Our social workers can also help referring you to community agencies and programs, as well as financial resources if you're eligible.

Tobacco Treatment Program
212-610-0507
If you want to quit smoking, MSK has specialists who can help. Call for more information.

For additional online information, visit LIBGUIDES on MSK’s library website at http://library.mskcc.org or the kidney cancer section of mskcc.org. You can also contact the library reference staff at 212-639-7439 for help.
External Resources

**Access-A-Ride**
web.mta.info/nyct/paratran/guide.htm
877-337-2017
In New York City, the MTA offers a shared ride, door-to-door service for people with disabilities who are unable to take the public bus or subway.

**Air Charity Network**
www.aircharitynetwork.org
877-621-7177
Provides travel to treatment centers.

**American Cancer Society (ACS)**
www.cancer.org
800-227-2345
Offers a variety of information and services, including Hope Lodge, a free place for patients and caregivers to stay during cancer treatment.

**Cancer and Careers**
www.cancerandcareers.org
A comprehensive resource for education, tools, and events for employees with cancer.

**CancerCare**
www.cancercare.org
800-813-4673
275 Seventh Avenue (Between West 25th & 26th Streets)
New York, NY 10001
Provides counseling, support groups, educational workshops, publications, and financial assistance.

**Cancer Support Community**
www.cancersupportcommunity.org
Provides support and education to people affected by cancer.

**Caregiver Action Network**
www.caregiveraction.org
800-896-3650
Provides education and support for those who care for loved ones with a chronic illness or disability.

**Corporate Angel Network**
www.corpangelnetwork.org
866-328-1313
Offers free travel to treatment across the country using empty seats on corporate jets.

**Gilda’s Club**
www.gildasclubnyc.org
212-647-9700
A place where men, women, and children living with cancer find social and emotional support through networking, workshops, lectures, and social activities.
**Good Days**  
www.mygooddays.org  
877-968-7233  
Offers financial assistance to pay for copayments during treatment. Patients must have medical insurance, meet the income criteria, and be prescribed medication that is part of the Good Days formulary.

**Healthwell Foundation**  
www.healthwellfoundation.org  
800-675-8416  
Provides financial assistance to cover copayments, health care premiums, and deductibles for certain medications and therapies.

**Joe's House**  
www.joeshouse.org  
877-563-7468  
Provides a list of places to stay near treatment centers for people with cancer and their families.

**LGBT Cancer Project**  
http://lgbtcancer.org  
Provides support and advocacy for the LGBT community, including an online support groups and a database of LGBT friendly clinical trials.

**LIVESTRONG Fertility**  
www.livestrong.org/we-can-help/fertility-services  
855-744-7777  
Provides reproductive information and support to cancer patients and survivors whose medical treatments have risks associated with infertility.

**National Cancer Institute**  
www.cancer.gov  
800-4-CANCER (800-422-6237)

**National Cancer Legal Services Network**  
www.nclsn.org  
Free cancer legal advocacy program.

**National LGBT Cancer Network**  
www.cancer-network.org  
Provides education, training, and advocacy for LGBT cancer survivors and those at risk.

**Needy Meds**  
www.needymeds.org  
Lists Patient Assistance Programs for brand and generic name medications.

**NYRx**  
www.nyrxplan.com  
Provides prescription benefits to eligible employees and retirees of public sector employers in New York State.
Partnership for Prescription Assistance  
www.pparx.org  
888-477-2669  
Help qualifying patients without prescription drug coverage get free or low-cost medications.

Patient Access Network Foundation  
www.panfoundation.org  
866-316-7263  
Provides assistance with copayments for patients with insurance.

Patient Advocate Foundation  
www.patientadvocate.org  
800-532-5274  
Provides access to care, financial assistance, insurance assistance, job retention assistance, and access to the national underinsured resource directory.

RxHope  
www.rxhope.com  
877-267-0517  
Provides assistance to help people obtain medications that they have trouble affording.