

# About Your Colon Resection Surgery

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# About Your Surgery

This guide will help you prepare for your colon resection surgery at Memorial Sloan Kettering Cancer Center (MSK), and help you understand what to expect during your recovery. Read through this guide at least once before your surgery and then 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, so that you and your healthcare team can refer to it throughout your care.

## Your Digestive System

Understanding how your digestive system works can be helpful as you prepare for and recover from your surgery. Your digestive system is made up of organs that break down food, absorb nutrients, and remove waste from your body. They include your mouth, esophagus (food pipe), stomach, small intestine, colon (large intestine), rectum, and anus (see Figure 1).

After your food has been chewed and swallowed, it moves into your esophagus. This is a long, muscular tube that serves as a passageway for food as it travels from your mouth into your stomach. Once the food enters your stomach, it mixes with stomach acids. These acids begin to break down or digest the food.

When the food leaves your stomach, it moves into your small intestine. There, it continues to be digested and absorbed. Many nutrients are absorbed in your small intestine. Anything that is not absorbed is called waste. The waste then moves to your colon, where some water is reabsorbed (taken back) into your body. The remaining waste enters the last portion of the colon known as the rectum. Your rectum serves as a holding area for these waste products until they are eliminated through your anus.

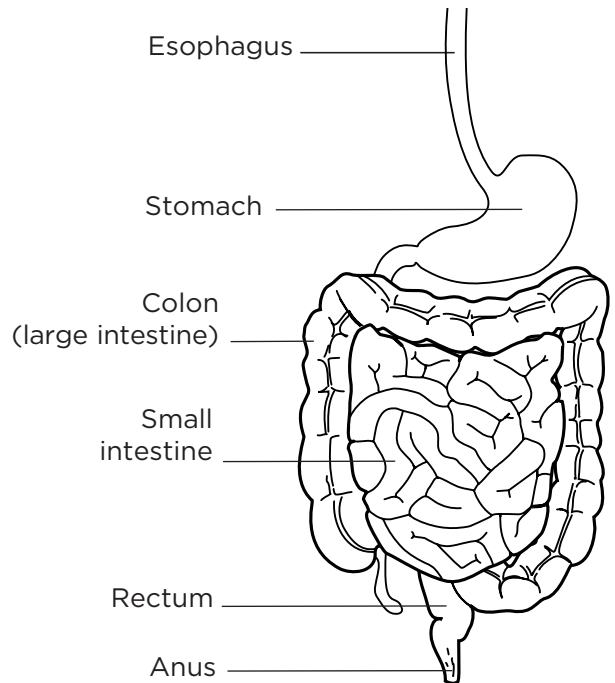


Figure 1: The digestive system

## Colon Resection

Colon resection is a surgery that is done to treat cancer of the colon. The part of your colon containing the cancer is removed. The healthy ends of your colon are then sewn back together. Your surgeon will explain which part of your colon will be removed (see Figure 2).

A colon resection can be done using different techniques. Your surgeon will talk with you about which options are right for you. Depending on what type of surgery you have, your surgeon will make one or more incisions (surgical cuts) on your belly. When one long incision is made on the belly, this is called open surgery. The part of the colon containing the cancer is removed through the incision. When several small incisions are made on the belly, this is called minimally invasive surgery. Small surgical instruments and a video camera are inserted into the incisions to remove the part of the colon containing the cancer. Some surgeons use a robotic device to assist with the surgery.

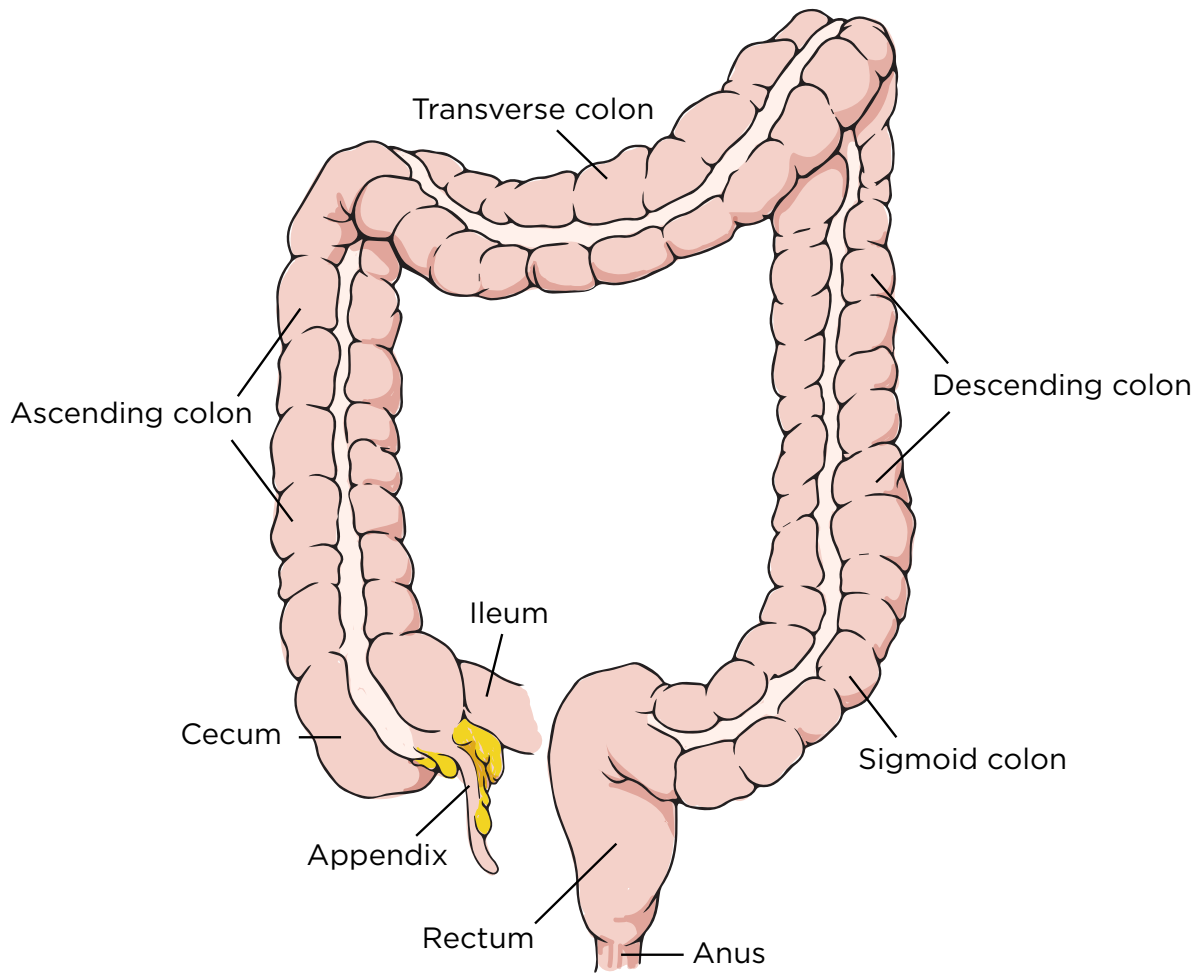


Figure 2: Parts of the colon

Notes

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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 is important that you talk with your healthcare providers 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 at risk for these complications, we can prescribe medications to help prevent them.
- If you drink alcohol regularly, you may be at risk for other complications during and after your surgery. These include bleeding, infections, heart problems, greater dependence on nursing care, and 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 treatment information will be kept confidential.

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 aspirin, heparin, warfarin (Coumadin®), clopidogrel (Plavix®), 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 any 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 have allergies, including latex.
- I am not willing to receive a blood transfusion.
- I drink alcohol.
- I smoke.
- I use recreational drugs.

## 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 want to quit, call our Tobacco Cessation Program at (212) 610-0507. You can also ask your nurse about the program.

## About Sleep Apnea

Sleep apnea is a common breathing disorder that causes a person to stop breathing for short periods while sleeping. The most common type is obstructive sleep apnea (OSA). This means that the airway becomes completely blocked during sleep, so no air can get through. OSA can cause serious problems when you have surgery. Please tell us if you have sleep apnea or if you think you may 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

Before your surgery, you will have an appointment for 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 be giving you medication to put you to sleep during your surgery). He or she 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. To help you remember, we've left space for you to write these medications down on page 11 of this guide. It is very helpful if you 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)

Use the space below to write in any notes about your PST appointment.

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## Health Care Proxy

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 or to learn more, talk with your nurse. If you have completed one or if you have any other advanced directive, bring it with you to your next appointment.

## 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, please read *How to Use Your Incentive Spirometer*, located in the "Resources" section of this guide. If you have any questions, ask your nurse.

## Exercise

Do some form of exercise every day. If it is cold outside, use stairs in your home or go to a mall or shopping market. Walking will help your body get into its best condition for your surgery and make your recovery faster and easier.

## Eat a Healthy Diet

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

# 10 Days Before Your Surgery

## Review Your Medications

If you take vitamin E, stop taking it 10 days before your surgery. If you take aspirin, ask your surgeon whether you should continue. Medications such as aspirin, medications that contain aspirin, and vitamin E can cause bleeding. For more information, please read *Common Medications Containing Aspirin and Other Nonsteroidal Anti-inflammatory Drugs (NSAIDs)*, located in the "Medications" section of this guide.

## Purchase Supplies

You will need to purchase the following supplies for your bowel preparation at your local pharmacy. Check the box next to the bowel preparation you will be doing. You do not need a prescription from your doctor.

- 1 (238-gram) bottle of polyethylene glycol (MiraLAX®)
- 1 (64-ounce) bottle of a clear liquid (see the clear liquid diet menu on page 9)

This is also a good time to stock up on clear liquids to drink the day before your surgery. For a list of clear liquids that you can drink, please see the table on page 9.



## 7 Days Before Your Surgery

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, please read *Herbal Remedies and Cancer Treatment*, located in the “Medications” section of this guide.

## 2 Days Before Your Surgery

Stop taking nonsteroidal anti-inflammatory drugs (NSAIDs), such as ibuprofen (e.g., Advil®, Motrin®) and naproxen (e.g., Aleve®), 2 days before your surgery. These medications can cause bleeding. For more information, please read *Common Medications Containing Aspirin and Other Nonsteroidal Anti-inflammatory Drugs (NSAIDs)*, located in the “Medications” section of this guide.

To reduce your risk of infection, avoid shaving or waxing your abdominal area.

## 1 Day Before Your Surgery

### Start Bowel Preparation

You will need to start your bowel preparation 1 day before your surgery. You will also need to follow a clear liquid diet the day before your surgery. Examples of clear liquids are listed in the table below. During your bowel preparation:

- Do not eat any solid foods.
- Make sure to drink plenty of liquids other than water, decaffeinated black coffee, and decaffeinated tea. Try to drink at least 1 (8-ounce) glass every hour while you’re awake.

Food/ Beverage	Drink	Do Not Drink
<b>Soups</b>	<ul style="list-style-type: none"><li>• Clear broth, bouillon</li><li>• Clear consommé</li><li>• Packaged vegetable, chicken, or beef broth mixes</li></ul>	Any products with any particles of dried food or seasoning
<b>Sweets and Desserts</b>	<ul style="list-style-type: none"><li>• Gelatin, such as Jell-O®</li><li>• Flavored ices</li><li>• Hard candies such as Lifesavers®</li></ul>	All others
<b>Beverages</b>	<ul style="list-style-type: none"><li>• Clear fruit juices, such as white cranberry, white grape, apple</li><li>• Soda, such as 7-Up®, Sprite®, ginger ale, seltzer</li><li>• Gatorade®</li><li>• Decaffeinated black coffee</li><li>• Decaffeinated tea</li></ul>	<ul style="list-style-type: none"><li>• Juices with pulp</li><li>• Nectars</li><li>• Milk or cream</li><li>• Alcoholic beverages</li></ul>

On the morning before your surgery, mix all 238 grams of MiraLAX® with the 64 ounces of clear liquid until the MiraLAX® powder dissolves. Once the MiraLAX® is dissolved, you can put the mixture in the refrigerator, if you prefer.

The MiraLAX® will cause frequent bowel movements, so be sure to be near a bathroom the evening before your surgery or procedure.

**At 5:00 pm on the day before your surgery**, start drinking the MiraLAX® bowel preparation. Drink 1 (8-ounce) glass of the mixture every 15 minutes until the container is empty. When you're finished drinking the MiraLAX®, drink 4 to 6 glasses of clear liquids. You can continue to drink clear liquids until midnight, but it is not required.

Apply zinc oxide ointment or Desitin® to the skin around your anus after every bowel movement. This helps prevent irritation.

## Note the Time of Your Surgery

A clerk from the Admitting Office will call you after 2:00 pm the day before your surgery. He or she will tell you what time you should arrive at the hospital for your surgery. If you are scheduled for surgery on a Monday, you will be called on Friday. If you do not receive a call by 7:00 pm the evening before your surgery, please call (212) 639-5014.

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

Date: \_\_\_\_\_ Time: \_\_\_\_\_

On the day of your surgery, go to the main hospital at 1275 York Avenue between East 67<sup>th</sup> and East 68<sup>th</sup> Streets. Take the B elevator to the 6<sup>th</sup> Floor to the Presurgical Center (PSC).

## Shower With Hibiclens®

Your nurse will give you a bottle of Hibiclens® skin cleanser before your surgery. Hibiclens® contains a strong antiseptic that kills germs and will reduce your risk of infection. The night before your surgery, shower using the Hibiclens®. To use the Hibiclens®, open the bottle and pour some of it into your hand or a clean washcloth. Rub it gently over your body from your neck to your waist and rinse. Do not let the solution get into your eyes, ears, mouth, or genital area. Dry yourself off with a clean towel after your shower.

## Sleep

Go to bed early and get a full night's sleep.

 **Do not eat or drink anything after midnight the night before your surgery. This includes water, hard candy, and gum.**

# The Morning of Your Surgery

## Shower With Hibiclens®

Shower using Hibiclens® just before you leave for the hospital. Use the Hibiclens® the same way you did the night before. Do not put on any lotion, cream, powder, deodorant, makeup, or perfume after your shower.

## Take Your Medications

If your doctor or nurse practitioner instructed you to take certain medications the morning of your surgery, take only those medications with a small 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.

Medication	Dose	Doctor/Nurse
Medication	Dose	Doctor/Nurse
Medication	Dose	Doctor/Nurse
Medication	Dose	Doctor/Nurse



**Do not eat or drink anything the morning of your surgery. This includes water, hard candy, and gum. If you were instructed to take any medications, take them with a sip of water.**

## Things to Remember

- Do not put on any lotion, cream, deodorant, makeup, powder, or perfume.
- Do not 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 are taken into the operating room, you will need to remove your eyeglasses, hearing aids, dentures, prosthetic device(s), wig, and religious articles, such as a rosary.

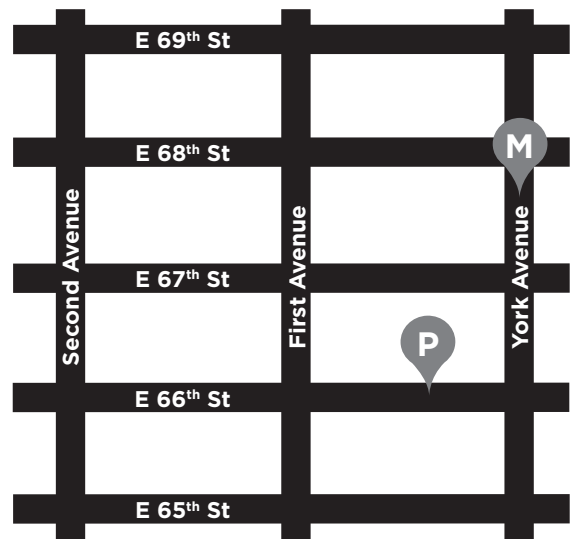
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## What to Bring

- A pair of loose-fitting pants (sweat pants are a good choice).
- Brief-style underwear that is 1 to 2 sizes larger than you normally wear.
- 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.
- A CD player and CDs or an iPod, if you choose. However, someone will need to hold these items for you when you go into surgery.
- Your breathing machine for sleep apnea (such as your CPAP), if you have one.
- Your incentive spirometer, if you have one.
- If you have a case for your personal items, such as eyeglasses, hearing aid(s), dentures, prosthetic device(s), wig, and religious articles such as a rosary, bring it with you.
- If you usually wear contact lenses, wear your glasses instead. Remember to bring a case for them.
- 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.
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## Parking When You Arrive

Parking at MSK is available in the garage on East 66<sup>th</sup> Street between York and First Avenues. To reach the garage, enter East 66<sup>th</sup> Street from York Avenue. The garage is located about a quarter of a block in from York Avenue, on the right-hand (north) side of the street. There is a pedestrian tunnel that connects the garage to the hospital. There are also other garages located on East 69<sup>th</sup> Street between First and Second Avenues, East 67<sup>th</sup> Street between York and First Avenues, and East 65<sup>th</sup> Street between First and Second Avenues. If you have questions about prices, call (212) 639-2338.



P = Parking  
M = Memorial Sloan Kettering

## Once You're in the Hospital

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

### Get Dressed for Surgery

You will be given a hospital gown, robe, and nonskid socks. Do not bring anything extra with you. Storage space is very limited.

### Meet With Your Nurse

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

### Meet With Your Anesthesiologist

He or she will:

- Review your medical history with you.
- Talk to you about your comfort and safety during your surgery.
- Talk to 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 is time for your surgery, your visitor(s) will be shown to the waiting area. Your visitors should read *Information for Family and Friends for the Day of Surgery* on page 15 of this guide.

You will walk into the operating room or you can 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.

Your anesthesiologist may also put an epidural catheter (thin, flexible tube) in your spine (back). This will be used to give you pain medication. The medication is delivered into your epidural space, which is the area just outside your spinal cord. It will give you pain relief with fewer side effects, such as nausea, vomiting, and sleepiness. This is similar to what is given to women when they have babies.

Once you are fully asleep, a breathing tube will be placed through your mouth into your windpipe to help you breathe. You will also have a urinary catheter placed to drain urine from your bladder.





# Information for Family and Friends for the Day of Surgery

This information explains to your family and friends what will happen on the day of surgery at Memorial Sloan Kettering Cancer Center (MSK).

## Before the Surgery

Upon arrival to the hospital, the patient will be asked to provide contact information for the person who will be speaking to the surgeon after the surgery. If the patient is having an outpatient procedure, he or she will also be asked to provide contact information for the person who will be taking the patient home.

Once the patient is checked in, he or she will go to the Presurgical Center (PSC) to be examined before surgery. One person may come along, but others should wait in the concierge waiting area. If the patient wishes, other people may join him or her when the nurse has finished the examination.

When the operating room (OR) is ready, the surgical team will take the patient there. They will prepare the patient for surgery, which usually takes 30 to 90 minutes, then the surgery will begin.

Please remember the following:

- Do not bring food or drinks to the waiting area or the PSC. Patients are not allowed to eat or drink before their surgery or procedure.
- If the patient brought any valuables, such as a cell phone, iPod, iPad, etc., please keep it safe for them.
- Children under the age of 11 are not allowed to go into the PSC. They must wait in the main lobby on the 1<sup>st</sup> floor with a responsible adult.

## During the Surgery

After the patient is taken to the OR, all visitors should go to the main lobby on the 1<sup>st</sup> floor.

- Food and drinks are available on the 1<sup>st</sup> floor in the cafeteria and in the gift shop. You can also bring your own food and eat it in the cafeteria.
- The coat-check room is at the bottom of the escalator on the ground level. It is open Monday through Friday from 11:00 am to 4:00 pm.
- Wireless Internet access is available in most areas of the hospital. You may also use the computers in the rooms off the main lobby.
- Please use the designated cell phone area to accept and make calls. It may be useful to bring your phone charger to the hospital. Please be courteous and mindful of others while using your cell phone.
- The Mary French Rockefeller Chapel, an interfaith chapel near the main lobby on the 1<sup>st</sup> floor, is open at all times for meditation and prayer.
- The Patient Recreation Pavilion is open daily from 9:00 am to 8:00 pm for patients and their visitors over the age of 11. Arts and crafts, a library, an outdoor terrace, and scheduled entertainment events are available in this area. To get there, take the M elevators to the 15<sup>th</sup> floor.

A clinical nurse specialist (CNS) will make rounds in the main lobby about every 2 hours to:

- Give you information about the patient
- Prepare you for your meeting with the surgeon
- Prepare you for visiting the patient in the Post-Anesthesia Care Unit (PACU)



You can contact the CNS between his or her regular visits in the lobby.

- From inside the hospital, use a hospital courtesy phone. Dial 2000 and ask for beeper 9000. Please be patient; this can take up to 2 minutes.
- From outside of the hospital, call (212) 639-2000. Ask for beeper 9000.
- You may also ask the information desk staff to contact the CNS for you.

## After the Surgery

When the patient's surgery is done, we will call you to come back to the concierge desk. Please take the B elevator to the 6<sup>th</sup> floor and check in at the concierge desk. The concierge staff will bring you to a private consultation room to speak with the surgeon.

After you have met with the surgeon, you should return to the concierge desk and tell them that you have finished your consultation.

After surgery, the patient will be taken to the PACU. It can take up to 90 minutes before the patient is ready to have visitors. You can use this time to take a walk or just relax in the waiting area until the patient is ready to see you.

Once the patient is ready for visitors, a nurse will take you to the PACU. Please remember that a limited number of visitors can go into the PACU. This is to keep the area quiet and avoid crowding.

## While visiting in the PACU

- Silence your cell phone.
- Apply hand sanitizer before entering.
- Keep noise to a minimum. All patients in the room need to rest.
- Do not wander away from the patient's bedside. It's important to respect each patient's right to privacy.
- Do not bring food or flowers into the PACU.
- Limit the time of your visit so that the patient can rest and recover.
- You may be asked to leave if there is an emergency, x-rays need to be done nearby, or patient care is being interrupted.

The nurse will update you on the patient's condition. He or she will also explain the plan of care for the patient, such as whether the patient is staying overnight and when he or she will be moved to an inpatient room. You should feel assured that you can leave the hospital after your visit. We will give you a card with the PACU phone number. Please appoint one person to call for updates.





The information in this section will tell you what to expect after your surgery, both during your hospital stay and after you leave the hospital. 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). You will stay there until you are awake and your pain is under control. Most patients return to their room after a few hours in the PACU, but some will need to stay in the PACU overnight for observation.

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 will have a patient-controlled analgesia (PCA) device. PCA uses a computerized pump to deliver pain medication into your IV or epidural space (in your spine). For more information, please read *Patient-Controlled Analgesia (PCA)*, located in the “Resources” section of this guide.

You will have a Foley® catheter in your bladder to monitor the amount of urine you are making. You will also have compression boots on your lower legs to help your circulation. They will be taken off when you are able to walk. You will also have 1 or 2 drains in your lower abdomen to drain extra fluid from the area. Most of the time, the drains are removed after a few days. If you will go home with a drain, your nurse will show you how to care for it.

Your visitors can see you briefly in the PACU, usually within 90 minutes after you arrive there. A member of the nursing staff will explain the guidelines to them. After your stay in the PACU, you will be taken to your hospital room in the inpatient unit. There, 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. Your nurse will help you get out of bed the day after your surgery. Your activity will be increased until you can walk the halls in the hospital without help. Walking every 2 hours is a good goal. This will help prevent blood clots in your legs and reduce your risk of pneumonia.
- Use your incentive spirometer. This will help your lungs expand, which prevents pneumonia. For more information, please read *How to Use Your Incentive Spirometer*, located in the “Resources” section of this guide.

## Commonly Asked Questions

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

You will have some pain from your incision(s) after your surgery. Your doctor and nurse will ask you about your pain often. You will be given medication to manage your pain as needed. If your pain is not relieved, please tell your doctor or nurse. It is important to control your pain so you can cough, breathe deeply, use your incentive spirometer, and get out of bed and walk.

You will be given pain medication through your PCA pump. For more information, please read *Patient-Controlled Analgesia (PCA)*, located in the “Resources” section of this guide. When you can swallow liquids, you will get your pain medication by mouth.

## Will I have pain when I am home?

The length of time each patient has pain or discomfort varies. Some patients may have incisional soreness, tightness, or muscle aches for up to 6 months or longer. This does not mean that something is wrong. Follow the guidelines below to manage your pain.

- You will be given a prescription for pain medication before you go home. Call your doctor if the medication prescribed for you doesn't relieve your pain.
- Do not drive or drink alcohol while you are taking prescription pain medication.
- Pain medication should help you as you resume your normal activities. Take enough medication to make sure you can gradually increase your activities. Pain medication is most effective 30 to 45 minutes after taking it.
- Keep track of when you take your pain medication. It will not be as effective if you allow your pain to increase. Taking it when your pain first begins is more effective than waiting for the pain to get worse.

As your incision(s) heals, you will have less pain and need less pain medication. A mild pain reliever such as acetaminophen (Tylenol®) or ibuprofen (Advil®) will relieve aches and discomfort.

## How do I care for my incision(s)?

Your incision(s) will be closed with stitches, staples, or surgical glue. If you have stitches or staples, they are usually removed the morning you leave the hospital. This is done in your hospital bed and is not painful. If you go home with your staples or stitches in place, you will need to come back to the clinic to have them removed.

Tape strips called Steri-Strips® will be placed across your incision(s) to make sure it stays closed. After about 14 days, these will loosen and you can remove them. Your incision(s) will stay closed.

You should check your incision(s) every day for any signs of infection until your doctor tells you it has healed. Call your doctor if you develop any of the following signs of a wound infection:

- Redness
- Swelling
- Increased pain
- Warmth at the incision site
- Foul-smelling or pus-like drainage from your incision
- A temperature of 101° F (38.3° C) or higher

To prevent infection, please do not let anyone touch your incision(s). Clean your hands with soap and water or an alcohol-based hand sanitizer before you touch your incision(s).

When you take a shower, gently wash your incision(s) with a fragrance-free, liquid soap. If you have Steri-Strips® or surgical glue on your incision(s), do not scrub it or use a washcloth on it. This could irritate your incision(s) and prevent it from healing. While it is safe to take a shower, do not let your incision(s) be wet for too long. When you are finished with your shower, gently pat your incision(s) with a clean towel. Allow it to air dry completely before getting dressed.

## **When can I shower?**

You will be able to shower in the hospital and after you go home. Do not take tub baths or go swimming until your doctor says it is okay.

## **How can I prevent constipation?**

You may experience constipation (trouble passing stool) after your surgery. This is a common side effect of pain medication. Gentle activity, such as walking, and drinking more water can help reduce this side effect.

To avoid constipation, take a stool softener such as docusate sodium (Colace®) 3 times a day and 2 tablets of senna (a laxative) at bedtime. Continue taking the stool softener and laxative until you are no longer taking pain medication. Drink plenty of liquids. If you feel boated, avoid foods that can cause gas, such as beans, broccoli, onions, cabbage, and cauliflower.

## **How will my bowel function change after surgery?**

When a part of your colon is removed, the part that is left adapts to this change. Your remaining colon will begin to adapt shortly after your surgery. During this time, you may have the following symptoms:

- Gas
- Cramps
- Changes in your bowel habits (i.e., frequent bowel movements)

If you have soreness around your anus from frequent bowel movements:

- Soak in warm water 2 to 3 times a day.
- Apply zinc oxide ointment or Desitin® to the skin around your anus. This helps prevent irritation.
- Do not use harsh toilet tissue. You can use a nonalcohol wipe instead.
- Take medication, if your doctor prescribes it.

## **Will I need to change my diet after my surgery?**

For the first few days after your surgery, you will be given clear liquids. Then, your diet will progress to solid food.

Parts of the colon can be removed without having a major impact on your nutritional health. However, while your remaining colon is adjusting, your body may not absorb nutrients, liquids, vitamins, and minerals as well as before your surgery. Therefore, it is important that you drink plenty of liquids and make sure you are getting enough nutrients while you are recovering from your surgery.

Your doctor will give you dietary guidelines to follow after your surgery. Your dietitian will go over these guidelines with you before you leave the hospital.

### **When can I resume my normal activities?**

Doing your normal activities is an important part of regaining your strength. However, follow the guidelines below:

- Do not lift heavy objects, strain, or do strenuous exercise for at least 6 weeks after your surgery.
- Walking is a good way to increase your endurance. You can climb stairs but try to limit how often you do this for the first week you are home. Do not go out by yourself until you are sure of what you can do.
- Rest as needed, but if you cannot sleep at night, it may be a sign that you are resting too much during the day.

### **When can I resume sexual activity?**

Your surgeon will tell you when you can resume sexual activity.

### **When is it safe for me to drive?**

Do not drive until your surgeon tells you it is okay. This will be some time after your first follow-up appointment after your surgery. If you are still taking your prescribed pain medication, your surgeon may want you to wait longer before driving. The pain medication can slow your reflexes and responses, making it unsafe to drive. Also, braking requires use of the abdominal muscles, so driving may increase your discomfort.

### **When will I get my test results?**

After your surgery, the tumor and the tissue around it will be sent to a pathologist. Your test results will be ready about 5 business days after your surgery. Your surgeon will discuss the results of the tests with you and recommend whether you need any additional treatments.

### **What type of follow-up care will I receive after I leave the hospital?**

Your surgeon will want to see you 1 to 3 weeks after you leave the hospital. If you do not have an appointment before you leave the hospital, please call your surgeon's office to schedule it.

At this visit, your surgeon will check your incision(s) and overall condition. At other follow-up visits, you may have blood tests, x-rays, or colonoscopies.

It is important that you go to all of your follow-up visits after your surgery. You can call your doctor or nurse if you have any questions in between these appointments.

If you need to have more treatment after your surgery, it can be done at MSK or at a facility near your home. Your surgeon will plan your care with the doctors in charge of these treatments.

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

After surgery for a serious illness, you may have new and upsetting feelings. Many patients say they felt sad, worried, nervous, irritable, or 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, your 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 surgeon or nurse. You can reach them Monday through Friday from 9:00 am to 5:00 pm at the numbers below.

Surgeon: \_\_\_\_\_ Telephone: \_\_\_\_\_

Nurse: \_\_\_\_\_ Telephone: \_\_\_\_\_

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



#### **Call Your Doctor or Nurse if You Have:**

- **A temperature of 101° F (38.3° C) or higher**
- **Abdominal pain, nausea, and/or vomiting**
- **The following signs of infection in your incision:**
  - **Redness**
  - **Swelling**
  - **Increased pain**
  - **Warmth at the incision site**
  - **Foul-smelling or pus-like drainage**
- **Difficulty urinating**
- **Pain at your incision that is not relieved by pain medication**
- **Bleeding from your rectum**
- **Any questions or concerns**

Notes \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

The information in this section contains important information about what medications, herbal remedies, and other dietary supplements you will need to stop taking before your surgery. Read through this section before your surgery so that you are prepared. Write down any questions you have and be sure to ask your doctor or nurse.

# 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.

Medications such as aspirin and other NSAIDs, vitamin E, and COX-2 inhibitors can increase your risk of bleeding during cancer treatment. These medications affect your platelets, which are blood cells that clot to prevent bleeding. If you take aspirin or other NSAIDs, vitamin E, or a COX-2 inhibitor such as celecoxib (Celebrex<sup>®</sup>), tell your doctor or nurse. He or she 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.

## **If you're having surgery:**

- Stop taking medications that contain aspirin or vitamin E 10 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.
- Ask your doctor if you should continue taking a COX-2 inhibitor.

## **If you're having a procedure in Radiology (including Interventional Radiology, Interventional Mammography, and General Radiology):**

- 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. If your doctor instructs you to stop taking aspirin, you should stop 5 days before your procedure or as directed by your doctor.
- Stop taking NSAIDs 24 hours before your procedure.
- Stop taking medications that contain vitamin E 10 days before your procedure, or as directed by your doctor.

**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.**

Medications are often called by their brand name, which can make it difficult to know their ingredients. To help you identify medications that contain aspirin, other NSAIDs, and vitamin E, please review the list of common medications in this leaflet. While this list includes the most common products, there are others. Please 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.



**The following common medications contain aspirin:**

Alka Seltzer®	Cama® Arthritis Pain Reliever	Genprin®	Roxiprin®
Anacin®	COPE®	Gensan®	Saleta®
Arthritis Pain Formula	Dasin®	Heartline®	Salocol®
Arthritis Foundation Pain Reliever®	Easprin®	Headrin®	Sodol®
ASA Enseals®	Ecotrin (most formulations)	Isollyl®	Soma® Compound Tablets
ASA Suppositories®	Empirin® Aspirin (most formulations)	Lanorinal®	Soma® Compound with Codeine Tablets
Ascriptin® and Ascriptin A/D®	Epromate®	Lortab® ASA Tablets	St. Joseph® Adult Chewable Aspirin
Aspergum®	Equagesic Tablets	Magnaprin®	Supac®
Asprimox®	Equazine®	Marnal®	Synalgos® DC Capsules
Axotal®	Excedrin® Extra- Strength Analgesic Tablets and Caplets	Micrainin®	Tenol-Plus®
Azdone®	Excedrin® Migraine	Momentum®	Trigesic®
Bayer® (most formulations)	Fiorgen®	Norgesic Forte® (most formulations)	Talwin® Compound
BC® Powder and Cold Formulations	Fiorinal®	Norwich® Aspirin	Vanquish® Analgesic Caplets
Bufferin®	Fiorinal® (most formulations)	PAC® Analgesic Tablets	Wesprin® Buffered
Bufferin® (most formulations)	Fiortal®	Orphengesic®	Zee-Seltzer®
Buffets II®	Gelpirin®	Painaid®	ZORprin®
Buffex®		Panasal®	
		Percodan® Tablets	
		Persistin®	
		Robaxisal® Tablets	

**The following common medications are NSAIDs that do not contain aspirin:**

Advil®	Children's Motrin®	Indomethacin	Mobic®	Piroxicam
Advil Migraine®	Clinoril®	Indocin®	Motrin®	Ponstel®
Aleve®	Daypro®	Ketoprofen	Nabumetone	Relafen®
Anaprox DS®	Diclofenac	Ketorolac	Nalfon®	Saleta 200®
Ansaid®	Etodolac®	Lodine®	Naproxen	Sulindac
Arthrotec®	Feldene®	Meclofenamate	Naprosyn®	Toradol®
Bayer® Select Pain Relief	Fenoprofen	Mefenamic Acid	Nuprin®	Voltaren®
Formula Caplets	Flurbiprofen	Meloxicam	Orudis®	
Celebrex®	Genpril®	Menadol®	Oxaprozin	
	Ibuprofen	Midol®	PediaCare Fever®	

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

Amino-Opt-E	Aquavit	E-400 IU	E complex-600
Aquasol E	D'alpha E	E-1000 IU Softgels	Vita-Plus E

**Acetaminophen (Tylenol®) is generally safe to take during your cancer treatment. It doesn't affect platelets, so it will not increase your chance of bleeding. The following common medications contain acetaminophen; those in bold require a prescription:**

Acephen®	Datril®	Norco®	<b>Tylenol® with Codeine No. 3</b>
<b>Aceta® with Codeine</b>	<b>Di-Gesic®</b>	Panadol®	Vanquish®
<b>Acetaminophen with Codeine</b>	Esgic®	<b>Percocet®</b>	<b>Vicodin®</b>
Aspirin-Free Anacin®	Excedrin P.M.®	<b>Repan</b>	<b>Wygesic®</b>
Arthritis Pain Formula®	<b>Fiorcet®</b>	<b>Roxicet®</b>	<b>Zydone®</b>
Aspirin-Free	<b>Lorcet®</b>	Talacen®	
<b>Darvocet-N 100®</b>	<b>Lortab®</b>	Tempra®	
	Naldegesic®	Tylenol®	

 **Read the labels on all your medications.**

● Acetaminophen (Tylenol®) is a very common ingredient found in over-the-counter and prescription medications. It's often an ingredient in pain relievers, fever reducers, sleep aids, and cough, cold, and allergy medications. The full name acetaminophen is not always written out, so look for these common abbreviations, especially on prescription pain relievers: APAP, AC, Acetaminoph, Acetaminop, Acetamin, and Acetam.

Acetaminophen is safe when used as directed, but there is a limit to how much you can take in 1 day. It's possible to take too much acetaminophen without knowing because it's in many different medications, so always read and follow the label on the product you are taking. Do not take more than 1 medication at a time that contains acetaminophen without talking with a member of your healthcare team.

If you have any questions or concerns, talk with a member of your healthcare team. You can reach them Monday through Friday from 9:00 am to 5:00 pm at \_\_\_\_\_. After 5:00 pm, during the weekend, and on holidays, please call \_\_\_\_\_. If there's no number listed, or you're not sure, call (212) 639-2000.

# Herbal Remedies and 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 because they can:

- Interact with other drugs
- Increase or lower blood pressure
- Thin the blood and increase the risk of bleeding
- Make radiation therapy less effective
- Lower the effects of medications that suppress the immune system
- Increase the effects of sedation or anesthesia

## ■ Below are examples of common herbs and a description of their effects.

### **Echinacea**

- Can cause an allergic reaction such as a rash or difficulty breathing
- Can lower the effect of drugs used to suppress the immune system

### **Garlic**

- Can lower blood pressure, fat, and cholesterol levels
- Can prevent platelets (the blood cells that help stop bleeding) from sticking together, which increases the risk of bleeding

### **Ginkgo (also known as ginkgo biloba)**

- Can change how platelets function, which can increase the risk of bleeding

### **Ginseng**

- Can act as a stimulant, which can decrease the effects of anesthesia or sedation
- Can interfere with platelet function, which can increase the risk of bleeding
- Can lower blood glucose (sugar) level

### **Turmeric**

- Can reduce the antitumor action of chemotherapy drugs

### **St. John's Wort**

- Can interact with medications given during surgery
- Can make the skin more sensitive to laser treatment

### **Valerian**

- Can have a sedative effect, which can increase the effects of anesthesia or sedation

## Herbal formulas

- Many herbal formulas contain different herbs. We don't know their side effects. You must also stop taking these products 1 week before and during treatment

For more information about herbs and botanicals, visit the About Herbs, Botanicals & Other Products website at [mskcc.org/aboutherbs](http://mskcc.org/aboutherbs).

You can also download the Memorial Sloan Kettering About Herbs app from the Apple App Store at [itunes.apple.com/us/app/about-herbs/id554267162?mt=8](https://itunes.apple.com/us/app/about-herbs/id554267162?mt=8).

This information does not cover all possible side effects. Please share any questions or concerns with your doctor or nurse.

If you have any questions or concerns, talk with a member of your healthcare team. You can reach them Monday through Friday from 9:00 am to 5:00 pm at \_\_\_\_\_. After 5:00 pm, during the weekend, and on holidays, please call \_\_\_\_\_. If there's no number listed, or you're not sure, call (212) 639-2000.

This section contains a list of MSKCC 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

## **Admitting**

(212) 639-5014

Call to discuss private room or luxury suite options. If you want to change your room choice after your presurgical testing visit, call (212) 639-7873 or 7874.

## **Anesthesia**

(212) 639-6840

Call with 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.

## **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 counseling helpful. We provide counseling for individuals, couples, families, and groups, as well as medications to help if you feel anxious or depressed.

## **Integrative Medicine Service**

(800) 525-2225

Integrative Medicine Service 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**

(212) 639-5665

Learn beauty techniques to help you feel better about your appearance. This program is for both women and men. To register for a workshop at MSKCC, call (212) 639-LOOK. To find out if a group program is available in your area, check the [www.lookgoodfeelbetter.org](http://www.lookgoodfeelbetter.org), or call 1-800-395-LOOK.

## **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.

**Patient Financial Services**

(212) 639-8242

Call with any questions about preauthorization from your insurance company. This is also called preapproval. Patient Financial Services can also help you with your billing or other insurance questions.

**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.

**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

Patients may request private nurses or companions. Call for more information.

**Resources for Life After Cancer (RLAC) Program**

(646) 888-4740

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**

(646) 888-5271 or (646) 888-5203

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 refer you to community agencies and programs, as well as financial resources if you're eligible.

**Tobacco Cessation 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>. You can also contact the library reference staff at (212) 639-7439 for help.

# External Resources

The following are resources outside of MSK that you may find helpful:

## **Access-A-Ride**

[www.mta.info/nyct/paratran/guide.htm](http://www.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](http://www.aircharitynetwork.org)

(877) 621-7177

Provides travel to treatment centers.

## **American Cancer Society (ACS)**

[www.cancer.org](http://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](http://www.cancerandcareers.org)

A comprehensive resource for education, tools, and events for employees with cancer.

## **CancerCare**

[www.cancercare.com](http://www.cancercare.com)

(800) 813-4673

275 Seventh Avenue (between West 25<sup>th</sup> & West 26<sup>th</sup> Streets) New York, NY 10001

Provides counseling, support groups, educational workshops, publications, and financial assistance.

## **Cancer Support Community**

<http://cancersupportcommunity.org>

Provides support and education to people affected by cancer.

## **Caregiver Action Network**

[www.caregiveraction.org](http://www.caregiveraction.org)

(800) 896-3650

Provides education and support for those who care for loved ones with a chronic illness or disability.

## **Chronic Disease Fund**

[www.cdfund.org](http://www.cdfund.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 CDF formulary.

## **Corporate Angel Network**

[www.corpangelnetwork.org](http://www.corpangelnetwork.org)

(866) 328-1313

Free travel to treatment across the country using empty seats on corporate jets.



**fertileHOPE**

[www.fertilehope.org](http://www.fertilehope.org)

(855) 220-7777

Provides reproductive information and support to cancer patients and survivors whose medical treatments have risks associated with infertility.

**Gilda's Club**

[www.gildasclubnyc.org](http://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.

**Healthwell Foundation**

[www.healthwellfoundation.org](http://www.healthwellfoundation.org)

(800) 675-8416

Provides financial assistance to cover copayments, health care premiums, and deductibles for certain medications and therapies.

**Hospital Hosts**

[www.hospitalhosts.com](http://www.hospitalhosts.com)

National resource to help reduce costs related to medical travel needs such as air, car, and lodging near hospitals.

**Joe's House**

[www.joeshouse.org](http://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.com>

Provides support and advocacy for the LGBT community, including a online support groups and a database of LGBT friendly clinical trials.

**National Cancer Institute**

[www.cancer.gov](http://www.cancer.gov)

**National Cancer Legal Services Network**

[www.nclsn.org](http://www.nclsn.org)

Free cancer legal advocacy program.

**National LGBT Cancer Network**

[www.cancer-network.org](http://www.cancer-network.org)

Provides education, training, and advocacy for LGBT cancer survivors and those at risk.

**Needy Meds**

[www.needymeds.com](http://www.needymeds.com)

Lists Patient Assistance Programs for brand and generic name medications.

**NYRx**

[www.nyrxplan.com](http://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](http://www.pparx.org)

(888) 477-2669

Helps qualifying patients without prescription drug coverage get free or low-cost medications.

**Patient Access Network Foundation**

[www.panfoundation.org](http://www.panfoundation.org)

(866) 316-7263

Provides assistance with copayments for patients with insurance.

**Patient Advocate Foundation**

[www.patientadvocate.org](http://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](http://www.rxhope.com)

(877) 267-0517

Provides assistance to help people obtain medications that they have trouble affording.

**The Ostomy Association**

[www.uoaa.org](http://www.uoaa.org)

**Wound Ostomy Continence Organization**

[www.wocn.org](http://www.wocn.org)

Go to this website to find a CWOCN in your area. The website also has information on resources, suppliers of ostomy products, and support groups.

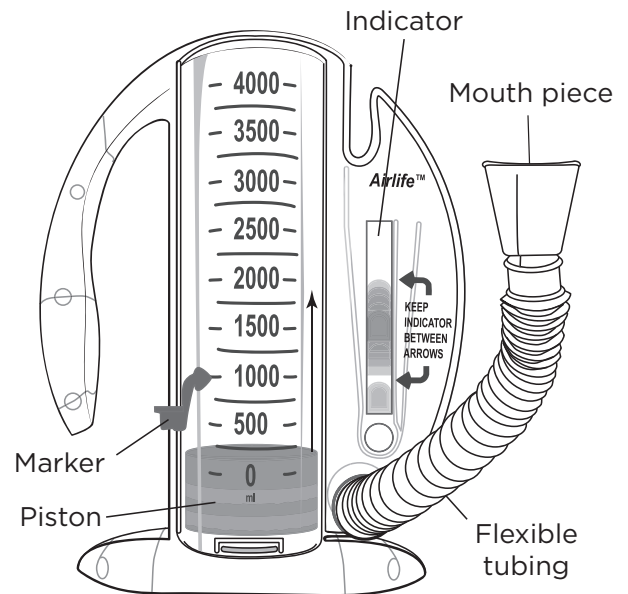
# How to Use Your Incentive Spirometer

An incentive spirometer will help you expand your lungs by encouraging you to breathe more deeply and fully. Using your incentive spirometer along with deep breathing and coughing exercises will help prevent complications such as pneumonia.



A video demonstrating how to use your incentive spirometer can be found on MSK's website at: <http://www.mskcc.org/videos/how-use-your-incentive-spirometer>.

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



- 1 Sit upright in a chair or in bed. Hold the incentive spirometer upright at eye level.
- 2 Breathe out (exhale) once slowly. Put the mouthpiece in your mouth and close your lips tightly around it.
- 3 Take a slow, deep breath in through your mouth. As you take a deep breath, you will see the piston rise on the left side of the device. While the piston rises, the indicator on the right should move upwards. It should stay in between the 2 arrows (see figure). If the indicator does not stay between the arrows, you are breathing either too fast or too slowly.
- 4 Try to get the piston as high as you can, while keeping the indicator between the arrows.
- 5 When you get it as high as you can, try to keep it at that level for as long as possible.
- 6 Exhale normally, allowing the piston to fall all the way back to the bottom. Rest for a few seconds. Take 10 to 12 breaths every hour with your incentive spirometer while you are awake. Try to get the piston to the same level with each breath.
- 7 After each set of breaths, cough 3 times. This will help loosen or clear any secretions in your lungs.

## Special Points

- If you feel dizzy at any time, stop and rest. Try again at a later time.
- Hug or hold a pillow to help splint your incision if you had surgery on your chest or abdomen. This will help decrease pain at your incision.
- 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.
- Keep the incentive spirometer clean by covering the mouthpiece when it is not in use.



Memorial Sloan Kettering  
Cancer Center

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# Patient-Controlled Analgesia (PCA)

This information will help you understand patient-controlled analgesia and how to use it.

Patient-controlled analgesia helps you control your pain by administering your pain medicine. It is often called “PCA.” PCA uses a computerized pump to deliver pain medicine into a vein (intravenous, or IV) or epidural space (in your spine). Whether you have an IV PCA or epidural PCA depends on what you and your doctor decided was right for you. When you have pain, you simply press the button attached to the pump. 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.**

## ■ How It Is Given:

The pump can be programmed to deliver your medicine in 2 ways:

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

## ■ Possible Side Effects:

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

- Constipation
- Nausea, vomiting
- Dry mouth
- Itching
- Changes in vision, such as seeing things that are not there
- Drowsiness, dizziness, or confusion
- Weakness, numbness, or tingling in your arms or legs
- Difficulty urinating



## ■ Special Instructions:

PCA is not right for everyone.

- Patients who are confused or cannot follow these instructions should not use PCA.
- If you have been told you have sleep apnea, tell your doctor. This may affect the way we prescribe your PCA.
- If you have weakness in your hands and may have trouble pushing the PCA button, talk with your doctor or nurse.

When using PCA, tell your doctor or nurse if:

- The medicine is not controlling your pain.
- Your pain changes. For example, tell them if:
  - It gets worse
  - You feel it in a new place
  - Feels different than before

If you have any questions or concerns, talk with a member of your healthcare team. You can reach them Monday through Friday from 9:00 am to 5:00 pm at \_\_\_\_\_. After 5:00 pm, during the weekend, and on holidays, please call \_\_\_\_\_. If there's no number listed, or you're not sure, call (212) 639-2000.