Patient & Caregiver Education

About Your Knee Replacement Surgery

This guide will help you get ready for your knee replacement surgery at Memorial Sloan Kettering (MSK). It will also 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.

Your Care Team

Doctor: _______________________________________________________

Phone number: ________________________________________________

Fax number: _________________________________________________

Nurse: _______________________________________________________

Physical Therapist: ___________________________________________

Your Caregiver

It’s important to choose a person to be your caregiver. They will learn about your surgery with you and help you care for yourself while you’re recovering after surgery. Write down your caregiver’s name below.

Caregiver: __________________________________________________
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About Your Surgery

The Parts of Your Knee

Your knee is the joint in the middle of your leg. A joint is a place where 1 or more bones meet. Your knee is made up of the end of your thighbone, your kneecap, and the end of your shinbone.

• Your **thighbone** is the bone that goes from your knee upward, to your hip. It’s also called your femur.

• Your **kneecap** is a small, triangle-shaped bone at the end of your thighbone. It’s also called your patella. Your kneecap protects your knee.

• Your **shinbone** is the bone that goes from your knee downward, to your ankle. It’s also called your tibia.

The ends of these bones are covered with a layer of cartilage (protective tissue). The cartilage lets your bones glide against one another when you bend your knee.

The bones in your knee are surrounded by muscles, tendons (strong tissue that connects muscles to bones), and ligaments (bands of tough tissue).

Figure 1. The parts of your knee
About Your Knee Replacement Surgery

During your surgery, your surgeon will remove the tumor in your bone and the parts of your knee damaged by the tumor. Then, they will replace the parts of your knee with artificial (man-made) parts called prostheses or implants (see Figure 2). These are usually made of metal, plastic, or a combination of both.

Figure 2. An example of a prosthesis
The information in this section will help you get ready for your surgery. Read through this section when your surgery is scheduled and refer to it as your surgery date gets closer. It has important information about what you need to do before your surgery.

Write down your questions and be sure to ask your doctor or nurse.

Notes
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Getting Ready for Your Surgery

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

**About Drinking Alcohol**

The amount of alcohol you drink can affect you during and after your surgery. It’s important to talk with your healthcare providers about how much alcohol you drink. This will help us plan your care.

- If you stop drinking alcohol suddenly, it can cause seizures, delirium, and death. If we know you’re at risk for these complications, we can prescribe medications to help keep them from happening.

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

Here are things you can do before your surgery to keep from having problems:

- Be honest with your healthcare providers about how much alcohol you drink.

- Try to stop drinking alcohol once your surgery is planned. If you develop a headache, nausea (feeling like you’re going to throw up), increased anxiety, or can’t sleep after you stop drinking, tell your healthcare provider right away. These are early signs of alcohol withdrawal and can be treated.

- Tell your healthcare provider if you can’t stop drinking.

- Ask your healthcare provider questions about drinking and surgery. As always, all of your medical 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®), enoxaparin (Lovenox®), dabigatran (Pradaxa®), apixaban (Eliquis®), and rivaroxaban (Xarelto®). There are others, so be sure your healthcare provider knows all the medications you’re taking.

- I take prescription medications (medications prescribed by a healthcare provider), including patches and creams.

- I take over-the-counter medications (medications I buy without a prescription), including patches and creams.

- I take dietary supplements, such as 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 (medication to make you sleep during surgery) 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 Smoking**

If you smoke, you can have breathing problems when you 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 by calling 212-610-0507.

**About Sleep Apnea**

Sleep apnea is a common breathing disorder that causes you to stop breathing for short periods of time while sleeping. The most common type is obstructive sleep apnea (OSA). With OSA, your airway becomes completely blocked during sleep. OSA 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 machine) 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 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 (NP) who works closely with anesthesiology staff (doctors and specialized nurses who will give you anesthesia during your surgery). Your NP 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 needed to plan your care. Your NP may also recommend that you see other healthcare providers.

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

It’s very helpful to bring the following things to your PST appointment:

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

**Identify Your Caregiver**

Your caregiver plays an important role in your care. You and your caregiver will learn about your surgery from your doctor and nurse. After your surgery, your caregiver should be with you when you’re given your discharge instructions so they’re able to help you care for yourself at home. Your caregiver will also need to take you home after you’re discharged from (leave) the hospital.
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 can’t communicate for yourself. The person you identify is called your health care agent. For more information about health care proxies and other advance directives, read the resource *Advance Care Planning*. You can find it online at www.mskcc.org/pe/advance_care_planning, or you can ask your nurse.

If you’re 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 directives, bring them to your next appointment.

Follow a Healthy Diet

Follow 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 clinical dietitian nutritionist.

**10 Days Before Your Surgery**

Stop Taking Vitamin E

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

**Buy Hibiclens® Skin Cleanser**

Hibiclens is a skin cleanser that kills germs for 24 hours after you use it (see figure). Showering with Hibiclens before your surgery will help lower 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 doctor if you should keep taking it. 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 the “Educational Resources” section of this guide.

Stop Taking Herbal Remedies and Other Dietary Supplements

Stop taking herbal remedies and other dietary supplements 7 days before your surgery. If you take a multivitamin, ask your doctor or nurse if you should keep taking it. For more information, read *Herbal Remedies and Cancer Treatment*, located in the “Educational Resources” section of this guide.
Watch a Virtual Tour
This video will give you an idea of what to expect when you come to Memorial Hospital (MSK’s main hospital) on the day of your surgery.

[Link: www.mskcc.org/pe/day-your-surgery]

Days Before Your Surgery

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

Day Before Your Surgery

Note the Time of Your Surgery
A staff member from the Admitting Office will call you after 2:00 PM the day before your surgery. If your surgery is scheduled for a Monday, they will call you on the Friday before. If you don’t get a call by 7:00 PM, please call 212-639-5014.

The staff member will tell you what time to arrive at the hospital for your surgery. Use the area to the right to write down your surgery date and scheduled arrival time.

The staff member will also tell you where to go. This will be the following location:

- Presurgical Center (PSC) on the 6th floor
- 1275 York Avenue (between East 67th and East 68th Streets)
- New York, NY 10065
- B elevator to 6th floor

Shower With Hibiclens
The night before your surgery, shower using Hibiclens.

1. Use your normal shampoo to wash your hair. Rinse your head well.
2. Use your normal soap to wash your face and genital area. Rinse your body well with warm water.
3. Open the Hibiclens bottle. Pour some solution into your hand or a washcloth.
4. Move away from the shower stream to avoid rinsing off the Hibiclens too soon.
5. Rub the Hibiclens gently over your body from your neck to your feet. Don’t put the Hibiclens on your face or genital area.
6. Move back into the shower stream to rinse off the Hibiclens. Use warm water.
7. Dry yourself off with a clean towel after your shower.
8. Don’t put on any lotion, cream, deodorant, makeup, powder, perfume, or cologne 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

Take Your Medications
If your doctor or NP told 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.

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

Things to Remember
- Wear something comfortable and loose-fitting.
- If you wear contact lenses, wear your glasses instead. Wearing contact lenses during surgery can damage your eyes.
- 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.
- Don’t put on any lotion, cream, deodorant, makeup, powder, perfume, or cologne.
• Leave valuable items (such as credit cards, jewelry, and your checkbook) at home.
• Before you’re taken into the operating room, you will need to remove your hearing aids, dentures, prosthetic device(s), wig, and religious articles.
• What to Bring

- A pair of loose-fitting pants (such as sweat pants).
- Sneakers that lace up. You may have some swelling in your feet. Lace-up sneakers can fit over this swelling.
- Your breathing machine for sleep apnea (such as your CPAP machine), if you have one.
- Your rescue inhaler (such as albuterol for asthma), if you have one.
- Your portable music player, if you choose. However, someone will need to hold it for you when you go into surgery.
- Your incentive spirometer, if you have one.
- Your Health Care Proxy form and other advance directives, if you have completed them.
- Your cell phone and charger.
- Only the money you may want for small purchases (such as a newspaper).
- A case for your personal items (such as eyeglasses, hearing aid(s), dentures, prosthetic device(s), wig, and religious articles), if you have one.
- A list of the medications you take at home.
- This guide. Your healthcare team will use this guide to teach you how to care for yourself after your surgery.
Where to Park

MSK’s parking garage is located on East 66th Street between York and First Avenues. If you have questions about prices, call 212-639-2338.

To reach the garage, turn onto East 66th 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’s a tunnel that you can walk through that connects the garage to the hospital.

There are also other garages located on East 69th Street between First and Second Avenues, East 67th Street between York and First Avenues, and East 65th Street between First and Second Avenues.

Once You’re in the Hospital

When you get to the hospital, take the B elevator to the 6th floor and check in at the desk in the PSC waiting room.

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

Get Dressed for Surgery

When it’s time to change for surgery, you will get a hospital gown, robe, and nonskid socks to wear.

Meet With Your Nurse

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

Your nurse may place an intravenous (IV) line into one of your veins, usually in your arm or hand. If your nurse doesn’t place the IV, your anesthesiologist will do it later once you’re in the operating room.

Marking Your Surgical Site

In addition to being asked your name and birth date, you may also be asked the name of your doctor, what surgery you’re having, and which side is being operated on. Your doctor or another member of your surgical team will use a marker to initial the site on your body that will be operated on. This 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.
- Ask you if you’ve had any problems with anesthesia in the past, including nausea or pain.
• Talk with you about your comfort and safety during your surgery.
• Talk with you about the kind of anesthesia you will have.
• Answer your questions about your anesthesia.

Your doctor or anesthesiologist may also talk with you about placing an epidural catheter (thin, flexible tube) in your spine (back). An epidural catheter is another way to give you pain medication after your surgery.

Get Ready for Your Surgery
Once your nurse has seen you, 1 or 2 visitors can keep you company as you wait for your surgery to start. When it’s 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, located in the “Educational Resources” section of this guide.

You will either walk into the operating room or be taken in on a stretcher. A member of the operating room team will help you onto the operating bed.

Once you’re comfortable, your anesthesiologist will give you anesthesia through your IV line and you will fall asleep. You will also get fluids through your IV line during and after your surgery.

During Your Surgery
After you’re fully asleep, a breathing tube will be placed through your mouth and into your windpipe to help you breathe.

Your surgeon will clean your leg and make an incision (surgical cut) over or near your kneecap. The incision will be about 8 to 12 inches (20 to 30 centimeters) long. They will remove the damaged bone and cartilage from your knee and send it to the Pathology Department to be checked for cancer cells. Then, your surgeon will prepare your knee joint for your prosthesis and attach the pieces of your artificial joint.

Once your surgery is finished, your surgeon will close your incision with staples, sutures (stitches), or Dermabond® (surgical glue). They will place a bandage over your incision.

Your breathing tube is usually taken out while you’re still in the operating room.
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 your questions and be sure to ask your doctor or nurse.
In the Post-Anesthesia Care Unit (PACU)

When you wake up after your surgery, you will be in the Post-Anesthesia Care Unit (PACU).

A nurse will be monitoring your body temperature, pulse, blood pressure, and oxygen levels. You may be getting oxygen through a thin tube that rests below your nose or a mask that covers your nose and mouth. You will also have compression boots on your lower legs. These gently inflate and deflate to help circulation in your legs.

Pain Medication

You will get epidural or IV pain medication while you're in the PACU.

- If you’re getting epidural pain medication, it will be put into your epidural space (the space in your spine just outside your spinal cord) through your epidural catheter.
- If you’re getting IV pain medication, it will be put into your bloodstream through your IV line.

You will be able to control your pain medication using a button called a patient-controlled analgesia (PCA) device. For more information, read Patient-Controlled Analgesia (PCA), located in the “Educational Resources” section of this guide.

Drainage Tubes

You will have 1 or 2 drainage tubes in your leg. Your nurse will give you information about the exact tubes and drains that you have. They may include:

- **Jackson-Pratt® (JP) drains near your incision.** These drain fluid from around your incision. They will be taken out when your incision stops draining. This is usually 2 to 3 days after your surgery.

- **ReliaVac® drains near your incision.** These drain fluid from around your incision. They will be removed 2 to 3 days after your surgery.

Visitors

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.

Moving to Your Hospital Room

Most people stay in the PACU overnight. After your stay in the PACU, you will be taken to your hospital room.
In Your Hospital Room

The length of time you’re in the hospital after your surgery depends on your recovery. Some people are discharged from the hospital after 3 to 4 days, while other people stay longer.

When you’re taken to your hospital room, you will meet one of the nurses who will care for you and teach you how to care for yourself while you’re recovering from your surgery.

Read the resource *Call! Don’t Fall!* to learn about what you can do to stay safe and keep from falling while you’re in the hospital. You can find it online at www.mskcc.org/pe/call_dont_fall, or you can ask your nurse.

**Managing Your Pain**

You will have some pain after your surgery.

- If you have an epidural catheter, you will get pain medication into your epidural space. You will be able to control your medication using a PCA device.
- If you don’t have an epidural catheter, you will get pain medication in your IV line.
- Once you’re able to eat normal food, you will get oral pain medication (medication you swallow).

Your doctor and nurse will ask you about your pain often and give you medication as needed. If your pain isn’t relieved, tell your doctor or nurse. It’s important to control your pain so you can use your incentive spirometer and move around.

You will be given a prescription for pain medication before you leave the hospital. Talk with your doctor or nurse about possible side effects and when you should start switching to over-the-counter pain medications.

**Exercising Your Lungs**

Moving around will help lower your risk for blood clots and pneumonia. Your nurse, physical therapist, and occupational therapist will help you until you’re able to move around on your own.

Your physical therapy will start the day after surgery. This is a very important part of your recovery. Your surgeon and physical therapist will plan your therapy based on your needs. They will help you:

- Build strength in your knee and leg.
- Get in and out of bed.
- Transfer to your chair.
- Walk with your assistive device, such as a walker, crutches, or cane.
- Do the exercises in the “Exercises After Your Surgery” section of this guide.
Continuous Passive Motion (CPM) Machine

You may be on a machine called a Continuous Passive Motion (CPM) (see Figure 3). A CPM machine is used to exercise your leg after knee replacement surgery. It will help you bend and extend your leg. Your physical therapist will show you how to use your CPM machine. You will need to use your CPM machine for about 1 to 3 weeks after your surgery.

You may also go home with your CPM machine. Your case manager will arrange for your CPM to be delivered to your home.

Knee Immobilizer

You will also have a splint called a knee immobilizer around your knee. The knee immobilizer protects your knee and keeps it from moving while it heals. Your doctor will give you more information about when to wear your knee immobilizer.

Exercising Your Lungs

It’s important to exercise your lungs so they expand fully. This helps prevent pneumonia.

- Use your incentive spirometer 10 times every hour you’re awake. For more information, read How to Use Your Incentive Spirometer, located in the “Educational Resources” section of this guide. You should also talk with your doctor about how to use your incentive spirometer.
- Do coughing and deep breathing exercises. A member of your care team will teach you how to do these exercises.

When using your incentive spirometer or doing other breathing exercises, it may help to hold a pillow or blanket against your incision. This will keep your leg muscles from moving as much so you have less pain.

Eating and Drinking

You will gradually start eating your normal diet again when you're ready. Your doctor or nurse will give you more information. Eating a balanced diet high in protein will help you heal after surgery. Your diet should include a healthy protein source at each meal, as well as fruits, vegetables, and whole grains. For more tips on increasing the calories and protein in your diet, read the resource Eating Well.
During and After Your Cancer Treatment. You can find it online at www.mskcc.org/pe/eating_cancer_treatment, or you can ask your nurse.

If you have questions about your diet, ask to see a dietitian.

Your Drainage Tubes and Incisions

You will probably have some discharge and tenderness around your incision or around your drains. Your nurses will show and tell you what’s normal and expected. They will also help you start learning how to care for your drains, tubes, and incisions.

Your drainage tubes will be removed 2 to 3 days after your surgery. Removing them won’t hurt, and you won’t need anesthesia. You won’t go home with any tubes or drains.

If you have staples in any of your incisions, they may be taken out before you leave the hospital. If you go home with sutures in your incisions, they will be removed at your first appointment after surgery. This is usually 2 to 3 weeks after surgery.

If you go home with Steri-Strips or Dermabond on your incisions, they will loosen and fall or peel off by themselves. If they haven’t fallen off within 10 days, you can take them off.

Leaving the Hospital

By the time you’re ready to leave the hospital, your incision will have started to heal. Before you leave the hospital, look at your incision with your nurse and caregiver. Knowing what your incision looks like will help you notice any changes or signs of infection later.

At Home

Read the resource What You Can Do to Avoid Falling to learn about what you can do to stay safe and keep from falling at home and during your follow-up appointments at MSK. You can find it online at www.mskcc.org/pe/avoid_falling, or you can ask your nurse.

Managing Your Pain

People have pain or discomfort for different lengths of time. You may still have some pain when you go home and will probably be taking pain medication. Some people have soreness, tightness, or muscle aches around their incision for 6 months or longer. This doesn’t mean that something is wrong.

Follow the guidelines below to help manage your pain at home.

- Take your medications as directed and as needed.
- Call your doctor if the medication prescribed for you doesn’t ease your pain.
- Don’t drive or drink alcohol while you’re taking prescription pain medication.
- As your incisions heal, you will have less pain and need less pain medication. An over-the-counter pain reliever such as acetaminophen (Tylenol®) or ibuprofen (Advil®) will ease aches and discomfort.
  - Follow your doctor or nurse’s instructions for stopping your prescription pain medication.
Don’t take more acetaminophen than the amount directed on the bottle or as instructed by your doctor or nurse. Taking too much acetaminophen can harm your liver.

- Pain medication should help you resume your normal activities. Take enough medication to do your exercises comfortably. However, it’s normal for your pain to increase slightly as you increase your level of activity.
- Keep track of when you take your pain medication. It works best 30 to 45 minutes after you take it. Taking it when your pain first begins is more effective than waiting for the pain to get worse.

Some pain medication may cause constipation (having fewer bowel movements than what’s normal for you).

**Swelling in your legs**

You may have some swelling in your legs after your surgery. To help with this, raise your legs above your chest. You can do this by lying down and resting your legs on pillows. If the swelling doesn’t go down after 4 hours, call your doctor.

**Managing Constipation**

Talk with your nurse about how to manage constipation. You can also follow the guidelines below.

- Go to the bathroom at the same time every day. Your body will get used to going at that time. However, 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 to 10 (8-ounce) glasses (2 liters) of liquids daily, if you can. Drink water, juices (such as prune juice), soups, ice cream shakes, and other drinks that don’t have caffeine. Drinks with caffeine, such as coffee and soda, pull fluid out of your body.
- Slowly increase the fiber in your diet to 25 to 35 grams per day. If you have an ostomy or have had recent bowel surgery, check with your doctor or nurse before making any changes in your diet. Foods high in fiber include:
  - Bran
  - Whole-grain cereals and breads
  - Unpeeled fruits and vegetables
  - Mixed green salads
  - Apricots, figs, and raisins
- Both over-the-counter and prescription medications are available to treat constipation. Try one of the following over-the-counter medications first. Follow the instructions on the label or from your healthcare provider.
  - Docusate sodium (Colace®): This is a stool softener that causes few side effects. Don’t take it with mineral oil.
- Polyethylene glycol (MiraLAX®): This is a laxative (medication to help you have a bowel movement) that causes few side effects. Take it with 8 ounces (1 cup) of a liquid.

- Senna (Senokot®): This is a laxative, which can cause cramping. It’s best to take it at bedtime.

For more information, read the resource Constipation. You can find it online at www.mskcc.org/pe/constipation, or you can ask your nurse.

Caring for Your Incision

Change your bandages at least once a day, or more often if they become wet with drainage. If there’s more than a small amount of drainage on any of your bandages, contact your doctor’s office to tell them.

You can stop covering your incision with a bandage after your first appointment after surgery. This is usually 2 to 3 weeks after surgery.

It’s normal for the skin below your incisions to feel numb. This happens because some of the nerves were cut. The numbness will go away over time.

Check your incision every day for any signs of infection. Call your doctor’s office if you have:

- A fever of 100.4°F (38°C) or higher.
- Redness, swelling or a smell from your incision.
- Drainage that looks like pus (thick, milky, bloody, or green).
- Chills.

Caring for Your Prosthesis

If you're going to have any procedure that might cause bleeding, tell your doctor or dentist that you have a knee prosthesis. You may need to take an antibiotic. If you get an infection, it may infect your new knee joint. For more information, read our resource Preventing an Infection to the Area of Your Bone or Joint Replacement Prosthesis, located in the “Educational Resources” section of this guide.

Showering

You can shower after your sutures are removed, which is usually 2 to 3 weeks after your surgery. Until then, you can take sponge baths or shower with your incision covered with a plastic bag or a waterproof dressing (such as AquaGuard®), which you can get from your local pharmacy. Remember, it’s important to keep your incisions dry.

After your sutures are removed and you begin showering without a waterproof dressing, remove your bandages and use soap to gently wash your incision. Pat the area dry with a clean towel after showering. Leave your incision uncovered unless there’s drainage. If you still have drainage, put a new bandage on your incision after your shower. Call your doctor if you have new drainage.

Don’t place your incision completely underwater, such as to take tub baths, swim in a pool, or soak in a hot tub, until all your scabs are gone and your skin is fully healed.
Physical Activity and Exercise

- It's normal to have less energy than usual after your surgery. Recovery time is different for each person. Increase your activities each day as much as you can. Always balance activity periods with rest periods. Rest is an important part of your recovery.

- If you have a CPM machine and your doctor wants you to use it at home, your case manager will arrange for it to be sent to your home. If you need help at home, the case manager will help to set that up for you.

- Don’t sit with your legs dangling for more than one hour at a time. For every hour that you’re sitting, standing, or walking, spend 1 hour lying down with your feet raised above the level of your heart. You can rest your feet on a pillow to do this.

- Continue to do the exercises in the “Exercises After Your Surgery” at home until your doctor tells you that you may stop.

Driving

Your doctor will tell you when you can start driving again. Don’t drive while you’re taking prescription pain medication that may make you drowsy.

Going Back to Work

The time it takes to return to work depends on the type of work you do, the type of surgery you had, and how fast your body heals. Ask your doctor when you will be able to return to work.

Traveling

Don’t travel by airplane until your doctor says it’s okay. Talk with your doctor before taking any long trips after your surgery.

Managing Your 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 can’t 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’s always a good idea to let these professionals know how you, your family, and your friends are feeling emotionally. Many resources are available to you and your family. Whether you’re 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.
Using MyMSK

MyMSK (my.mskcc.org) is your MSK patient portal account. You can use MyMSK to send and receive messages from your healthcare team, view your test results, see your appointment dates and times, and more.

If you don’t already have a MyMSK account, you can sign up by going to my.mskcc.org. For more information about signing up for a MyMSK account, watch our video How to Enroll in the Patient Portal: MyMSK. You can also contact the MyMSK Help Desk by emailing mymsk@mskcc.org or calling 800-248-0593.

Contact Your Doctor or Nurse if You Have:

- A fever of 100.4 °F (38 °C) or higher
- Pain that doesn’t get better with pain medication
- Chills
- Shortness of breath
- Bleeding that won’t stop
- Redness, drainage, swelling, or a smell from your incisions
- Swelling in your legs that doesn’t get better after you raise your legs for 4 hours
- Any problems you didn’t expect
- Any questions or concerns

You can contact your doctor’s office Monday through Friday from 9:00 AM to 5:00 PM.

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

Exercises After Your Surgery

After your surgery, you will need to do exercises to build strength in your knee and leg. Your physical therapist will show you how to do each exercise. They will also tell you when to start each one. You won’t be able to do all of these exercises right away. You will slowly add exercises to your therapy during your hospital stay and when you go home.

Not all knee replacement surgeries are done the same way. If you have a CPM machine or if your knee must stay in 1 position to heal, you won’t be able to do the exercises in this section. Your physical therapist will plan your therapy based on your needs.
Exercise tips

- Dress comfortably. You should wear clothing that won’t limit your movements. You can wear a hospital gown, pajamas, or athletic clothing.
- You can do these exercises while you’re in bed. Support your head and shoulders on 1 or more pillows. Make sure you’re comfortable.
- Breathe in through your nose and out through your mouth. Do the exercise movements when you breathe out.
- Don’t hold your breath while doing any of these exercises. Count out loud during the exercises to keep your breaths evenly paced.
- Stop any exercise that causes you pain or discomfort and tell your physical therapist which exercises are hurting you. You can continue to do the other exercises.

Exercises

Do not do any of the exercises in this section without talking with your doctor and physical therapist.

Ankle Pumps

1. Lie on your back with your head and shoulders supported on pillows. You can also do this exercise while sitting.
2. Point your toes up toward your nose (see Figure 1). You can do this with both feet at the same time.
3. Then, point them toward the floor.
4. Repeat 10 times.

Do this exercise every hour that you’re awake.

Figure 1. Ankle pumps
Quad sets
1. Lie on your back with your head and shoulders supported on pillows.
2. Straighten your legs as much as you can.
3. Push the backs of your knees down into the bed while tightening the muscles on the top of your thighs (see Figure 2).
4. Hold the position and count out loud to 5.
5. Relax.
6. Repeat 10 times.

Do this exercise every hour that you're awake.

Glute sets
1. Lie on your back with your head and shoulders supported on pillows.
2. Straighten your legs as much as you can.
3. Squeeze your buttock muscles together tightly (see Figure 3).
4. Hold the position and count out loud to 5.
5. Relax your buttocks.
6. Repeat 10 times.

Do this exercise every hour that you're awake.

Figure 2. Quad sets

Figure 3. Gluteal sets
Knee bends

Don’t do this exercise if you have a CPM machine. If you have a CPM machine, the machine will bend your knee for you.

1. Lie on your back with your head and shoulders supported on pillows.
2. Slowly bend your operated leg (leg you had surgery on), sliding your heel toward your buttocks (see Figure 4).
3. Gently slide your heel away from your buttocks until your knee is resting on the bed.
4. Repeat 10 times.

Do this exercise every hour that you’re awake.

Figure 4. Knee bends

Flexion and extension (bending and straightening) in sitting

1. Sit in a chair or at the edge of your bed. Let your knee bend as much as you can without hurting yourself.
2. Hook the ankle of the unoperated leg (leg you didn’t have surgery on) under your operated leg (see Figure 5).
3. Lift your unoperated leg slowly to gently help straighten your operated leg.
4. Lower your legs slowly until the operated knee is bent as much as possible again.
5. Relax your legs.
6. Repeat 10 times.

Do this exercise every hour that you’re awake.

Figure 5. Flexion and extension in sitting
**Straight leg raises**

1. Lie on your back with your head and shoulders supported on pillows.
2. Bend your unoperated leg and place your foot flat on the bed (see Figure 6).
3. Keeping your operated leg straight, lift it from the bed until your knees are even with each other (see Figure 7). This will be hard to do at first but will get easier with time.
4. Slowly lower your leg onto the bed and relax.
5. Repeat 10 times.

Do this exercise 5 times throughout your day.

**Short arc quads**

1. Lie on your back with your head and shoulders supported on pillows.
2. Place a rolled towel or pillow under your operated knee so that it’s slightly bent.
3. Straighten 1 of your legs by lifting your heel and pressing the back of your knee into the towel (see Figure 8).
4. Hold the position and count out loud to 5.
5. Gently lower your leg.
6. Repeat 10 times.
7. Repeat with your other leg.

Do this exercise every hour that you’re awake.
This section contains a list of support services that may help you get ready for your surgery and recover safely.

Write down your questions and be sure to ask your doctor or nurse.

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MSK Support Services

Anesthesia
212-639-6840
Call if you have questions about anesthesia.

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

Bobst International Center
888-675-7722
MSK welcomes patients from around the world. If you're an international patient, call for help arranging 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 Memorial Hospital's main lobby 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. To make an appointment, ask your healthcare provider for a referral or call the number above.

Food Pantry Program
646-888-8055
The food pantry program provides food to people in need during their cancer treatment. For more information, talk with your healthcare provider or call the number above.

Integrative Medicine Service
646-888-0800
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
www.lookgoodfeelbetter.org
800-395-LOOK (800-395-5665)
This program offers workshops to learn things you can do to help you feel better about your appearance. For more information or to sign up for a workshop, call the number above or visit the program's website.

MSK Library
library.mskcc.org
212-639-7439
You can visit our library website or speak with the library reference staff to find more information about your specific cancer type. You can also visit LibGuides on MSK’s library website at libguides.mskcc.org.
Patient and Caregiver Education
www.mskcc.org/pe
Visit the Patient and Caregiver Education website to search our virtual library. There, you can find written educational resources, videos, and online programs.

Patient and Caregiver 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 and Caregiver Support Program, you’re able to speak with former patients and caregivers. These conversations may take place in person, over the phone, or through email.

Patient Billing
646-227-3378
Call if you have questions about preauthorization with your insurance company. This is also called preapproval.

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

Perioperative Nurse Liaison
212-639-5935
Call if you have questions about MSK releasing any information while you’re having surgery.

Private Duty Nursing Office
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.

Sexual Health Programs
Cancer and cancer treatments can have an impact on your sexual health. MSK’s Sexual Health Programs can help you take action and address sexual health issues before, during, or after your treatment.

- Our Female Sexual Medicine and Women’s Health Program helps women who are dealing with cancer-related sexual health challenges, including premature menopause and fertility issues. For more information, or to make an appointment, call 646-888-5076.
- Our Male Sexual and Reproductive Medicine Program helps men who are dealing with cancer-related sexual health challenges, including erectile dysfunction. For more information, or to make an appointment, call 646-888-6024.

Social Work
212-639-7020
Social workers help patients, family, and friends deal with issues that are common for people with cancer. 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 refer 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.

Virtual Programs
www.mskcc.org/vp
MSK's Virtual Programs offer online education and support for patients and caregivers, even when you can’t come to MSK in person. Through live, interactive sessions, you can learn about your diagnosis, what to expect during treatment, and how to prepare for the various stages of your cancer care. Sessions are confidential, free, and led by expert clinical staff. If you’re interested in joining a Virtual Program, visit our website at www.mskcc.org/vp for more information.

For more online information, visit the “Cancer Types” section of www.mskcc.org.

External Support Services

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 aren’t able 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-ACS-2345 (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 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  
www.lgbtcancer.org  
Provides support and advocacy for the LGBT community, including 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
Helps 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 get medications that they have trouble affording.
This section contains the educational resources that were referred to throughout this guide. These resources will help you get ready for your surgery and recover safely after surgery.

Write down your questions and be sure to ask your doctor or nurse.

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Call! Don’t Fall!

This information describes what you can do to keep from falling and stay safe while you’re in the hospital. Being in the hospital can make you weak. Follow these guidelines to avoid falling.

- Call for help every time you need to get out of bed or up from a chair.
- Don’t go to the bathroom alone.
- Don’t bend over. If you drop something, call for help.
- Don’t lean on furniture that has wheels, such as your bedside table, over-bed table, or IV pole.
- Wear safe, supportive shoes. Examples include shoes with laces and slippers with nonskid soles. Don’t wear shoes or slippers with an open back.
- Call for help right away if you see any spills on the floor.
- Use the grab bars in the bathroom and railings in the hallways.
- If you have glasses or hearing aid(s), wear them when you’re awake.
- Let us know what you will need near you. Help us make sure we have:
  - Placed your call button where you can reach it
  - Placed items you may need (such as your phone, books, or glasses) where you can reach them
  - Turned on a night light before it gets dark
  - Raised the top bedrail to keep you safe
  - Removed any clutter from around your bedside and chairside
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.

### 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 of the medications you’re taking, both prescription and over-the-counter (not prescription).**

<table>
<thead>
<tr>
<th>Common Medications that Contain Aspirin</th>
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<tbody>
<tr>
<td>Aggrenox®</td>
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<tr>
<td>Alka Seltzer®</td>
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<tr>
<td>Anacin®</td>
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<tr>
<td>Arthritis Pain Formula</td>
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<tr>
<td>Arthritis Foundation Pain Reliever®</td>
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<tr>
<td>ASA Enseals®</td>
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<tr>
<td>ASA Suppositories®</td>
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<tr>
<td>Ascriptin® and Ascriptin A/D®</td>
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<tr>
<td>Aspergum®</td>
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<tr>
<td>Common Medications that are NSAIDs that Don’t Contain Aspirin</td>
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<tr>
<td>---------------------------------</td>
</tr>
<tr>
<td>Advil®</td>
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<tr>
<td>Advil Migraine®</td>
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<tr>
<td>Aleve®</td>
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<tr>
<td>Anaprox DS®</td>
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<tr>
<td>Ansaid®</td>
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<tr>
<td>Arthrotec®</td>
</tr>
<tr>
<td>Bayer® Select Pain Relief</td>
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<tr>
<td>Formula Caplets</td>
</tr>
<tr>
<td>Celebrex®</td>
</tr>
<tr>
<td>Celecoxib</td>
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<tr>
<td>Children’s Motrin®®</td>
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Most multivitamins contain vitamin E. If you take a multivitamin, be sure to check the label.

**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.

**Read the labels on all your medications**

Acetaminophen is safe when used as directed, but there’s 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.
Make sure to always read and follow the label on the product you’re taking. Acetaminophen 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 isn’t always written out. Look for the common abbreviations listed below, especially on prescription pain relievers.

<table>
<thead>
<tr>
<th>Common Abbreviations for Acetaminophen</th>
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<tbody>
<tr>
<td>APAP</td>
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<tr>
<td>Acetamin</td>
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</table>

Don’t take more than 1 medication that contains acetaminophen at a time without talking with a member of your healthcare team.
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 as instructed by your healthcare provider. 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. They 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 with your doctor or nurse first.

- You have any questions or concerns.
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 using spices in cooking and drinking tea. However, you must stop taking herbal supplements 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.
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](image)

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
recovery and prevent complications such as pneumonia.

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 slow.

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.

9. Put the marker at the level the piston reached on your incentive spirometer. This will be your goal next time.

Repeat these steps every hour that you are awake.

Cover the mouthpiece of the incentive spirometer when you are not using it.
Information for Family and Friends for the Day of Surgery

This information explains what to expect on the day your friend or family member is having surgery at Memorial Sloan Kettering’s (MSK) main hospital.

Before the Surgery

After arriving at the hospital, the patient will be asked to provide contact information for the person who will be meeting with the surgeon after the surgery. This is the same person who will get updates from the nurse liaison during the surgery. If the patient is having an outpatient procedure, they will also be asked to provide contact information for the person who will be taking them home.

Once the patient is checked in, they will go to the Presurgical Center (PSC) to be examined before surgery. Sometimes, they may need to wait before they are admitted to the PSC.

In the PSC, the nurse will do an exam. One person can come along to the PSC, but other visitors should wait in the waiting area. If the patient wants, other visitors may join them when the nurse has finished the exam.

When the operating room (OR) is ready, a member of the surgical team will come to escort the patient into the OR. They will prepare the patient for surgery, which can take 15 to 90 minutes. Then, the surgery will begin.

Please remember the following:

- **Do not bring food or drinks to the waiting area.** Patients are not allowed to eat or drink before their surgery or procedure.

- Our patients are at high risk for infection. Please do not visit if you have any cold or flu symptoms (fever, sneezing, sniffles, or a cough). We may ask you
to wear a mask if there are any concerns about your health.

- If the patient brought any valuables, such as a cell phone, iPod, or iPad, please keep them safe for them during surgery.
- Sometimes, surgeries may be delayed. We make every effort to tell you when this happens.

**During the Surgery**

After the patient is taken to the OR, please wait in the main lobby on the 1st floor, where you will be updated by the nurse liaison. While you’re waiting, here are some things you can do:

- Food and drinks are available in the cafeteria and gift shop. You can also bring your own food and eat it in the cafeteria.
- The coat-check room is located at the bottom of the escalator on the ground level. It’s open Monday through Friday from 11:00 am to 4:00 pm.
- Wireless Internet access is available in most areas of the hospital. The wifi network name is MSK_guest. You can also use the computers in the room off the main lobby.
- Please be courteous and mindful of others while using your cell phone. Use the designated area to accept and make calls on your cell phone. It may be useful to bring your phone charger to the hospital.
- The Mary French Rockefeller All Faith Chapel is an interfaith chapel located in room M106 near the main lobby on the 1st floor. It’s 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. Children are allowed in the pavilion as long as they are supervised by an adult. The pavilion has arts and crafts, a library, an outdoor terrace, and scheduled entertainment events. To get to the pavilion, take the M elevators to the 15th floor.

**Surgery updates**

A nurse liaison will keep you updated on the progress of surgery. They will:

- Give you information about the patient.
• Prepare you for your meeting with the surgeon.

• Arrange for you to visit the patient in the Post Anesthesia Care Unit (PACU).

To contact the nurse liaison:

• From inside the hospital, use a hospital courtesy phone. Dial 2000 and ask for beeper 9000. Please be patient, as this can take up to 2 minutes.


• Ask the information desk staff to contact the nurse liaison for you.

After the Surgery

Meeting with the surgeon

When the patient’s surgery is completed, we will call you and ask you to return to the concierge desk to tell you where to go to meet with the surgeon.

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

Visiting the patient in the PACU

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.

When the patient is able to have visitors, a staff member will take you to the PACU for one brief visit. No one is allowed to stay overnight with the patient in the PACU, except for caregivers of pediatric patients.

Please follow these guidelines before your visit:

• Silence your cell phone.

• Apply an alcohol-based hand sanitizer (such as Purell®) before entering. There are hand sanitizer stations located throughout the hospital.

• Do not bring food or flowers into the PACU.

Please remember that only a limited number of visitors can go into the PACU. This is to keep the area quiet and allow the patients to rest and receive care.
While visiting in the PACU

- Speak quietly.
- Respect other patients’ privacy by staying at the bedside of your friend or family member.
- If any PACU patient needs special nursing attention, we may ask you to leave or to delay your visit.

The nurse will update you with the plan of care for the patient, such as whether the patient is staying overnight and when they will be moved to an inpatient room. If the patient is staying overnight, you may visit them again in the PACU. If the patient is going home the same day, a caregiver must take them home.

After your visit, a staff member will escort you back from the PACU.

We will give you a card with the PACU phone number. Please choose one person to call for updates.
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.
Preventing an Infection to the Area of Your Bone or Joint Replacement Prosthesis

This information will help you prevent an infection in the area of your bone or joint replacement prosthesis.

When to Take Antibiotics

An infection in the area of your prosthesis can lead to serious complications. For the rest of your life, you must take an antibiotic if:

- You are diagnosed with a bacterial infection.
- You are going to have a procedure that may put you at risk for infection or if you have a cut or injury that causes bleeding. This is called taking antibiotics prophylactically.

Treating infections

If you develop a bacterial infection anywhere in your body, including your throat, chest, bladder, or on your skin, let your doctor know that you have a prosthesis and need antibiotics. It is important that you start the antibiotics as soon as possible. Your doctor will prescribe the antibiotic that best treats your infection.

If you get a bacterial infection, you should also call the surgeon who replaced your joint or bone.
Taking antibiotics prophylactically

Some procedures may put you at risk for an infection that could spread to the area of your prosthesis. These include:

- Any procedure that may cause bleeding, such as dental work, removal of a corn or callus, or injury when cutting your toenails. Unclean instruments can cause infection anywhere if you break the skin.

- Procedures done on your bladder, such as a cystoscopy or catheterization.

- Procedures done on your bowel, such as a colonoscopy.

- A gynecologic procedure that may cause bleeding.

- Anything that causes a break in your skin, such as mouth sores, a cut, or any open wound.

If you have any procedure that has a risk of causing infection, you should take an antibiotic before the procedure. You should also take an antibiotic if you have a cut or injury that causes bleeding. Take the antibiotics as prescribed. Usually 1 dose is enough; however, you may need to take more if you have bleeding after the procedure.

Tell your doctor doing the procedure that you have a prosthesis and that you need to take an antibiotic before your procedure. If your doctor is not sure what to prescribe or if you have a cut or injury, call the surgeon who replaced your joint or bone.
Antibiotics for Dental Work

The chart below lists common antibiotics used for dental work. Your dentist, oral surgeon, or nurse may use other antibiotics depending on the procedure you are having.

Please call your surgeon who replaced your joint if you don’t get a prescription for one of these antibiotics.

<table>
<thead>
<tr>
<th>Antibiotic</th>
<th>How to take</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amoxicillin</td>
<td>By mouth, 1 hour before the procedure.</td>
</tr>
<tr>
<td></td>
<td>Adults: 2 grams</td>
</tr>
<tr>
<td></td>
<td>Children: 50 mg/kg</td>
</tr>
<tr>
<td>Ampicillin (If you are unable to</td>
<td>A shot in the muscle (IM) or in the vein (IV) within 30</td>
</tr>
<tr>
<td>take an oral antibiotic.)</td>
<td>minutes of having the procedure.</td>
</tr>
<tr>
<td></td>
<td>Adults: 2 grams</td>
</tr>
<tr>
<td></td>
<td>Children: 50 mg/kg</td>
</tr>
<tr>
<td>Clindamycin (If you are allergic to</td>
<td>By mouth, 1 hour before the procedure.</td>
</tr>
<tr>
<td>penicillin.)</td>
<td>Adults: 800 mg or 600 mg</td>
</tr>
<tr>
<td></td>
<td>Children: 20 mg/kg</td>
</tr>
</tbody>
</table>
What You Can Do to Avoid Falling

This information describes what you can do to keep from falling when you come for your appointments at Memorial Sloan Kettering (MSK). It also describes how you can keep from falling while you’re at home.

Things That Can Make You Fall

Anyone can fall, but some things make you more likely to fall. You’re at higher risk for falling if you:

- Are 60 years old or older
- Have fallen before
- Are afraid of falling
- Feel weak, tired, or forgetful
- Have numbness or tingling in your legs or feet
- Have trouble walking or are unsteady
- Don’t see well
- Feel dizzy, lightheaded, or confused
- Use a walker or cane
- Have depression or anxiety
- Take certain medications, such as:
  - Laxatives (pills to cause a bowel movement)
  - Diuretics (water pills)
  - Sleeping pills
  - Medications to prevent seizures
Some medications for depression
- Pain medications
- Intravenous (IV) fluids (fluids into your vein)
- Any medication that makes you feel sleepy

How to Avoid Falling During Your MSK Appointments

- Come to your appointment with someone who can help you get around.
- If you use an assistive device such as a wheelchair or cane, bring it to your appointment.
- Wear safe, supportive shoes. Examples include shoes that have a low heel height, a thin, firm midsole, a slip-resistant sole, and laces or Velcro® to close the shoe. Don’t wear shoes with an open back.
- Ask a member of our staff, such as a security guard or person at the front desk, for help while you’re at MSK. They can also bring you a wheelchair to use during your appointment.
- Have someone help you while you’re in the dressing room or bathroom. If you don’t have anyone with you, tell the person at the reception desk. They will find a nurse to help you.
- Use the grab bars while you’re in the bathroom.
- When getting up after you’re lying down, sit at the side of the bed or exam table before you stand up.
- If you feel dizzy or weak, tell someone. If you’re in a bathroom, look for a call bell that you can use to call for help.

How to Avoid Falling at Home

- Set up your furniture so that you can walk around without anything blocking your way.
- Use a nightlight or keep a flashlight close to you at night.
- Remove rugs and other loose items from your floor. If you have a rug
covering a slippery floor, make sure the rug doesn’t have any loose or fringed edges.

- If your bathroom isn’t close to your bedroom (or wherever you spend most of your time during the day), get a commode. Place it nearby so you don’t have to walk to the bathroom.

- Put grab bars and handrails next to your toilet and inside your shower. Never use towel racks to pull yourself up. They aren’t strong enough to hold your weight.

- Apply anti-slip stickers to the floor of your tub or shower.

- Buy a shower chair and a hand-held shower head so you can sit while taking a shower.

- When getting up after you’re lying down, sit for a few minutes before you stand up.

- Place items in your kitchen and bathroom cabinets at shoulder height so you don’t have to reach too high or bend too low.

If you’re concerned about your risk for falling, talk with your doctor or nurse.

Additional Resources

For more information about how to keep from falling at home, read the Centers for Disease Control and Prevention (CDC) booklet Check for Safety: A Home Fall Prevention Checklist for Older Adults. It’s available in English and Spanish on www.cdc.gov or by calling 800-CDC-INFO (800-232-4636).

For more information about choosing safe shoes, read our resource How to Choose Safe Shoes to Prevent Falling (https://www.mskcc.org/pe/safe_shoes).