PATIENT & CAREGIVER EDUCATION

About Your Curettage, Cryotherapy, and Internal Fixation Surgery

This guide will help you get ready for your curettage, cryotherapy, and internal fixation surgery at Memorial Sloan Kettering (MSK). It will also help you understand what to expect during your recovery.

Use this guide as a source of information in the days leading up to your surgery. Bring it with you on the day of your surgery. You and your healthcare team will refer to it as you learn more about your recovery.

Your healthcare team

Doctor: ___________________________________________________________
Nurse: ___________________________________________________________
Phone number: ___________________________________________________
Fax number: _____________________________________________________

Your caregiver

It’s important to choose a person to be your caregiver. They’ll 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: _______________________________________________________

To view this guide online, visit www.mskcc.org/pe/curettage_cryotherapy_internal_fixation
Table of contents

About Your Surgery .................................................................................................. 3
  Curettage .................................................................................................................. 3
  Cryotherapy .............................................................................................................. 3
  Internal fixation ......................................................................................................... 3

Before Your Surgery ................................................................................................. 5
  Getting ready for your surgery ................................................................................. 6
  Within 30 days of your surgery ................................................................................. 8
  7 days before your surgery ......................................................................................... 9
  2 days before your surgery ........................................................................................ 10
  1 day before your surgery .......................................................................................... 10
  The morning of your surgery ..................................................................................... 11

After Your Surgery ................................................................................................. 15
  In the Post-Anesthesia Care Unit (PACU) ................................................................. 16
  In your hospital room ................................................................................................. 16
  At home ...................................................................................................................... 19
  When to call your healthcare provider ..................................................................... 23
  Exercises after your surgery ..................................................................................... 25

Support Services ..................................................................................................... 27
  MSK support services ............................................................................................... 28
  External support services ......................................................................................... 30

Educational Resources ............................................................................................. 31

*Common Medications Containing Aspirin, Other Nonsteroidal Anti-inflammatory Drugs (NSAIDs), or Vitamin E*

*Herbal Remedies and Cancer Treatment*

*Patient-Controlled Analgesia (PCA)*

*Preventing an Infection in Your Bone or Joint Replacement Prosthesis*
About Your Surgery

Curettage
Curettage is a procedure used to treat:

- Enchondromas (non-cancerous bone tumors found in cartilage)
- Bone cysts
- Low-grade lesions (areas of abnormal tissue)
- Metastatic disease (when cancer has spread beyond where it started) to the bone

Your surgeon will use a curette, a surgical tool that looks like a small ice cream scoop. This instrument has sharp edges that lets it scrape out the diseased part of your bone.

Cryotherapy
Cryotherapy (also called cryosurgery or cryoablation) is a procedure that may be used along with your curettage procedure. It’s used to destroy any remaining diseased bone by freezing it with liquid nitrogen.

Your surgeon will be extremely careful to protect your healthy bone when they remove the diseased bone.

Internal fixation
Internal fixation protects your healthy bone from becoming weak while you have these procedures. It also helps keep your bone in the right position while it’s healing.

Types of internal fixation
There are different types of internal fixation. Your surgeon may use one or more type. They’ll talk with you about what to expect.

Bone graft
A bone graft can be taken from you (an autograft) or from a donor (an allograft).

- If you’re having an autograft, your surgeon will take the bone graft from your iliac bone (a bone in the upper part of your hip). After your surgery, you’ll have another incision (surgical cut) near the top part of your hip.
- If you’re having an allograft, your surgeon will use sterilized bone chips. They may also use coral, which has many of the same properties as bone.

Your surgeon will talk with you about which kind of bone graft will work best for you.
**Bone cement**
Bone cement is also called polymethylmethacrylate (PMMA). It’s made of a powder and a liquid. When they’re mixed together, they form a hard substance (like cement). This substance can fill the space where your diseased bone was removed. Bone cement is radiopaque, which means your surgeon can see it on your x-rays.

**Fixation with metal hardware**
Your surgeon may also keep your bone in place with metal hardware, such as an orthopedic screw or pin. This hardware will be inside your bone and only visible on an x-ray.

Your surgeon will only use metal hardware if they think your bone will need extra support while it heals. Your hardware may be left in for a long period of time or removed when your bone is fully healed.

---

Notes
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
Before Your Surgery

The information in this section will help you get ready for your surgery. Read 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.

As you read through this section, you can use the space below to write down any questions you want to ask your healthcare provider.

Notes
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
______________________________________________________________________________
Getting ready for your surgery

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

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, such as:
  - Aspirin
  - Heparin
  - Warfarin (Jantoven® or Coumadin®)
  - Clopidogrel (Plavix®)
  - Enoxaparin (Lovenox®)
  - Dabigatran (Pradaxa®)
  - Apixaban (Eliquis®)
  - Rivaroxaban (Xarelto®)
  There are others, so be sure your healthcare provider knows all the medications you’re taking.

- 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’ve had a problem with anesthesia (medication to make me sleep during surgery) in the past.

- I’m allergic to certain medication(s) or materials, including latex.

- I’m not willing to receive a blood transfusion.

- I drink alcohol.

- I smoke or use an electronic smoking device (such as a vape pen, e-cigarette, or Juul®).

- I use recreational drugs.

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 your medical information will be kept confidential.

**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 healthcare provider 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 device (such as a CPAP device) for sleep apnea, bring it with you the day of your surgery.

**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. You can also invite your caregiver to create their own account so they can see information about your care.

If you don’t have a MyMSK account, you can visit my.mskcc.org, call 646-227-2593, or call your doctor’s office for an enrollment ID to sign up. You can also watch our video *How to Enroll in MyMSK: Memorial Sloan Kettering’s Patient Portal* (www.mskcc.org/pe/enroll_mymsk). For help, contact the MyMSK Help Desk by emailing mymsk@mskcc.org or calling 800-248-0593.
Within 30 days of your surgery

Presurgical Testing (PST)

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

During your PST appointment, you’ll meet with a nurse practitioner (NP) who works closely with anesthesiology staff (specialized healthcare providers who will give you anesthesia during your surgery). Your NP will review your medical and surgical history with you. You may have tests, such as 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 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. Before your surgery, you and your caregiver will learn about your surgery from your healthcare providers. After your surgery, your caregiver will take you home when you’re discharged from the hospital. They’ll also help you care for yourself at home.

For caregivers

Resources and support are available to help manage the responsibilities that come with caring for a person going through cancer treatment. For support resources and information, visit www.mskcc.org/caregivers or read A Guide for Caregivers. You can find it online at www.mskcc.org/pe/guide_caregivers or ask your healthcare provider for a copy.
Complete a Health Care Proxy form

If you haven’t already completed a Health Care Proxy form, we recommend you complete one now. If you’ve already completed one or have any other advance directives, bring them to your next appointment.

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.

Talk with your healthcare provider if you’d like to complete a health care proxy. You can also read the resources Advance Care Planning and How to Be a Health Care Agent for information about health care proxies, other advance directives, and being a health care agent. You can find them online at www.mskcc.org/pe/advance_care_planning and www.mskcc.org/pe/health_care_agent or ask your healthcare provider for a copy.

Follow a healthy diet

Follow a well-balanced, healthy diet before your surgery. If you need help with your diet, talk with your healthcare provider about meeting with a clinical dietitian nutritionist.

Buy a 4% chlorhexidine gluconate (CHG) solution antiseptic skin cleanser (such as Hibiclens®)

4% CHG solution is a skin cleanser that kills germs for 24 hours after you use it. Showering with it before your surgery will help lower your risk of infection after surgery. You can buy a 4% CHG solution antiseptic skin cleanser at your local pharmacy without a prescription.

7 days before your surgery

Follow your healthcare provider’s instructions for taking aspirin

If you take aspirin or a medication that contains aspirin, you may need to change your dose or stop taking it 7 days before your surgery. Aspirin can cause bleeding.

Follow your healthcare provider’s instructions. Don’t stop taking aspirin unless they tell you to. For more information, read the resource Common Medications Containing Aspirin, Other Nonsteroidal Anti-inflammatory Drugs (NSAIDs), or Vitamin E. You can find it in the “Educational Resources” section of this guide.
Stop taking vitamin E, multivitamins, herbal remedies, and other dietary supplements

Stop taking vitamin E, multivitamins, herbal remedies, and other dietary supplements 7 days before your surgery. These things can cause bleeding. For more information, read the resource *Herbal Remedies and Cancer Treatment*. You can find it in the “Educational Resources” section of this guide.

2 days before your surgery

Stop taking nonsteroidal anti-inflammatory drugs (NSAIDs)

Stop taking NSAIDs, such as ibuprofen (Advil® and Motrin®) and naproxen (Aleve®), 2 days before your surgery. These medications can cause bleeding. For more information, read the resource *Common Medications Containing Aspirin, Other Nonsteroidal Anti-inflammatory Drugs (NSAIDs), or Vitamin E*. You can find it in the “Educational Resources” section of this guide.

1 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’ll call you on the Friday before. If you don’t get a call by 7:00 PM, call 212-639-5014.

The staff member will tell you what time to arrive at the hospital for your surgery. They’ll also remind 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
- Take the B elevator to the 6th floor.

Shower with a 4% CHG solution antiseptic skin cleanser (such as Hibiclens)

The night before your surgery, shower using a 4% CHG solution antiseptic skin cleanser.

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 4% CHG solution bottle. Pour some into your hand or a clean washcloth.

4. Move away from the shower stream. Rub the 4% CHG solution gently over your body from your neck to your feet. Don’t put it on your face or genital area.

5. Move back into the shower stream to rinse off the 4% CHG solution. Use warm water.

6. Dry yourself off with a clean towel after your shower.

7. Don’t put on any lotion, cream, deodorant, makeup, powder, perfume, or cologne after your shower.

**Instructions for eating before your surgery**

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

**The morning of your surgery**

**Instructions for drinking before your surgery**

You can drink a total of 12 ounces of water between midnight and 2 hours before your scheduled arrival time. Do not drink anything else.

*Do not drink anything starting 2 hours before your scheduled arrival time.* This includes water.

**Take your medications as instructed**

If your healthcare provider 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, this may be all, some, or none of your usual morning medications.
Shower with a 4% CHG solution antiseptic skin cleanser (such as Hibiclens)

Shower with a 4% CHG solution antiseptic skin cleanser before you leave for the hospital. Use it 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 tools used during your surgery can cause burns if they touch metal.
- Leave valuable items at home.
- If you’re menstruating (have your monthly period), use a sanitary pad, not a tampon. You’ll get disposable underwear, as well as a pad if needed.

What to bring

- A pair of loose-fitting pants (such as sweatpants).
- Sneakers that lace up. You may have some swelling in your feet. Lace-up sneakers can fit over this swelling.
- Your breathing device for sleep apnea (such as your CPAP device), if you have one.
- Your rescue inhaler (such as albuterol for asthma), if you have one.
- Your incentive spirometer, if you have one.
- Your Health Care Proxy form and other advance directives, if you 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 your eyeglasses, hearing aid, dentures, prosthetic device, wig, and religious articles), if you have any.
- This guide. Your healthcare team will use it to teach you how to care for yourself after surgery.
Where to park

MSK’s parking garage is 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 about a quarter of a block in from York Avenue, on the right-hand (north) side of the street. There’s a tunnel you can walk through that connects the garage to the hospital.

There are also other garages 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. Check in at the desk in the PSC waiting room.

Many staff members will ask you to say and spell your name and birth date. This is for your safety. People with the same or a similar name may be having surgery on the same day.

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

Meet with a nurse

You’ll meet with a nurse before surgery. Tell them the dose of any medications you took after midnight (including prescription and over-the-counter medications, patches, and creams) and the time you took them.

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

Marking your surgical site

Along with asking your name and birth date, your healthcare providers may also ask what your doctor’s name is, what surgery you’re having, and which side is being operated on. Your surgeon 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 all members of your surgical team are clear about the plan for your surgery.
Meet with an anesthesiologist
You’ll also meet with an anesthesiologist before surgery. They will:

- Review your medical history with you.
- Ask 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’ll get.
- 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
When it’s time for your surgery, you’ll need to remove your hearing aids, dentures, prosthetic device, wig, and religious articles, if you have them. You’ll either walk into the operating room or a staff member will bring you there on a stretcher. A member of the operating room team will help you onto the operating bed and place compression boots on your lower legs. These gently inflate and deflate to help blood flow in your legs.

Once you’re comfortable, your anesthesiologist will give you anesthesia through your IV line and you’ll fall asleep. You’ll 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 over your affected bone. The length of the incision will depend on how much of your bone is affected. They’ll curettage the damaged bone and send it to the Pathology Department to be checked. Then your surgeon will get your bone ready for the additional procedures.

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

Your breathing tube is usually taken out while you’re still in the operating room.
After Your Surgery

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’ll learn how to safely recover from your surgery.

As you read through this section, you can use the space below to write down any questions you want to ask your healthcare provider.

Notes
_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
In the Post-Anesthesia Care Unit (PACU)

When you wake up after your surgery, you’ll be in the PACU. A nurse will be keeping track of 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’ll also have compression boots on your lower legs. If your surgery was on your tibia (shinbone), you may not have the boot on your affected leg.

Pain medication

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

Tubes and drains

You may have a Jackson-Pratt (JP) or ReliaVac® drainage tube near your incision. These drain fluid from around your incision. They’ll be taken out when your incision stops draining. This is usually 2 to 3 days after your surgery.

Moving to your hospital room

Most people stay in the PACU about the same amount of time they’re in the operating room. After your stay in the PACU, a staff member will bring you 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 1 to 3 days, while other people stay longer.

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

You’ll have some pain after your surgery. At first, you’ll get pain medication in your IV line. You’ll be able to control your IV pain medication with a PCA device. Once you’re able to eat solid food, you’ll get oral pain medication (medication you swallow).

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

You’ll get a prescription for pain medication before you leave the hospital. Talk with your healthcare provider about possible side effects and when you should start switching to over-the-counter pain medications.

Exercise and physical activity

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

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

- Build strength in your affected limb (the limb where your surgery was).
- Get in and out of bed.
- Move to your chair.
- Walk with your assistive device (walker, crutches, or cane), if your surgery was on one of your legs.
- Do the exercises in the “Exercises after your surgery” section of this guide.

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

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 the resource How to Use Your Incentive Spirometer. You can find it online at www.mskcc.org/pe/incentive_spirometer or ask your healthcare provider for a copy.
- Do coughing and deep breathing exercises. A member of your care team will teach you how.
**Eating and drinking**

You’ll gradually start following your usual diet again when you’re ready. Your healthcare provider 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 Your Cancer Treatment*. You can find it online at www.mskcc.org/pe/eating_cancer_treatment or ask your healthcare provider for a copy.

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

**Your drains, tubes, and incisions**

You’ll 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’ll 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. Most people go home without any tubes or drains.

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

**Leaving the hospital**

On the day of your discharge, plan to leave the hospital around 11:00 AM. Before you leave, your healthcare provider will write your discharge order and prescriptions. You’ll also get written discharge instructions. One of your healthcare providers will review them with you before you leave.

If your ride isn’t at the hospital when you’re ready to be discharged, you may be able to wait in the Patient Transition Lounge. A member of your healthcare team will give you more information.
At home

Read the resource *What You Can Do to Avoid Falling* to learn what you can do to stay safe and keep from falling at home and during your appointments at MSK. You can find it online at www.mskcc.org/pe/avoid_falling or ask your healthcare provider for a copy.

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 something is wrong.

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

- Take your medications as directed and as needed.
- Call your healthcare provider if the medication prescribed for you doesn’t ease your pain.
- Don’t drive or drink alcohol while you’re taking prescription pain medication. Some prescription pain medications can make you drowsy. Alcohol can make the drowsiness worse.
- As your incision heals, you’ll have less pain and need less pain medication. An over-the-counter pain reliever such as acetaminophen (Tylenol®) or ibuprofen (Advil® or Motrin®) will ease aches and discomfort.
  - Follow your healthcare provider’s instructions for stopping your prescription pain medication.
  - Don’t take more of any medication than the amount directed on the label or as instructed by your healthcare provider.
  - Read the labels on all the medications you’re taking, especially if you’re taking acetaminophen. Acetaminophen is an ingredient in many over-the-counter and prescription medications. Taking too much can harm your liver. Don’t take more than 1 medication that contains acetaminophen without talking with a member of your healthcare team.
- Pain medication should help you resume your normal activities. Take enough medication to do your activities and exercises comfortably. It’s normal for your pain to increase a little as you start to be more active.
- Keep track of when you take your pain medication. It works best 30 to 45 minutes after you take it. Taking it when you first have pain is better than waiting for the pain to get worse.

Some prescription pain medications (such as opioids) may cause constipation (having fewer bowel movements than usual).
**Swelling**

You may have some swelling in your affected limb after your surgery. To help with this, raise your affected limb above your chest. You can do this by lying down and resting your legs on pillows or placing your arm on pillows so the limb is higher than heart level. You can also ice the area of your incision with a padded ice pack for 20 minutes each hour.

If the swelling doesn’t go down after 4 hours, call your healthcare provider.

**Preventing and managing constipation**

Talk with your healthcare provider about how to prevent and 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. If you feel like you need to go, though, don’t put it off.
- Try to use the bathroom 5 to 15 minutes after meals. After breakfast is a good time to go. That’s when the reflexes in your colon are strongest.
- 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.
  - Choose liquids such as water, juices (such as prune juice), soups, and ice cream shakes.
  - Avoid liquids with caffeine (such as coffee and soda). Caffeine can pull fluid out of your body.
- Slowly increase the fiber in your diet to 25 to 35 grams per day. Unpeeled fruits and vegetables, whole grains, and cereals contain fiber. If you have an ostomy or have had recent bowel surgery, check with your healthcare provider before making any changes in your diet.
- Both over-the-counter and prescription medications are available to treat constipation. Check with your healthcare provider before taking any medications for constipation, especially if you have an ostomy or have had bowel surgery. Follow the instructions on the label or from your healthcare provider.
  Examples of over-the-counter medications for constipation include:
  - Docusate sodium (Colace®). This is a stool softener (medication that makes your bowel movements softer) that causes few side effects. You can use it to help prevent constipation. Don’t take it with mineral oil.
  - Polyethylene glycol (MiraLAX®). This is a laxative (medication that causes bowel movements) that causes few side effects. Take it with 8 ounces (1 cup) of a liquid. Only take it if you’re already constipated.
  - Senna (Senokot®). This is a stimulant laxative, which can cause cramping. It’s best to take it at bedtime. Only take it if you’re already constipated.
If any of these medications cause diarrhea (loose, watery bowel movements), stop taking them. You can start again if needed.

For more information, read the resource Constipation. You can find it online at www.mskcc.org/pe/constipation or ask your healthcare provider for a copy.

**Changing your dressing**

If your healthcare provider gave you other instructions (such as leaving your dressing in place until your post-op visit), follow their instructions.

If your healthcare provider covered your incision with a regular dressing (white gauze and tape):

- Don’t remove or change your dressing for 2 days after your surgery. Call your healthcare provider if your dressing becomes full.
- After 2 days, remove your dressing. Replace it with clean, dry gauze.
- Change the gauze every day and whenever it gets wet or dirty.

If your healthcare provider covered your incision with a Mepilex® dressing (a tan dressing with a soft, squishy center):

- Don’t remove or change your Mepilex dressing for 1 week after your surgery.
- After 1 week, remove your Mepilex dressing. Replace it with clean, dry gauze.
- Change the gauze every day and whenever it gets wet or dirty.

Look at your incision each time you change your gauze. It may look slightly red, swollen, or bruised. This is normal. If your incision is getting more red or swollen or if you notice drainage (liquid) or a bad smell coming from your incision, call your healthcare provider. These things are signs of an infection.

**Caring for your incision**

- Don’t get your incision wet until you see your healthcare provider at your follow-up appointment. You can sponge bathe, but make sure to cover your incision with a cast bag, clean garbage bag and tape, or plastic wrap and tape to keep it dry. Your healthcare provider will tell you when you can start washing your incision.
- Don’t put lotions or creams on your incision unless your healthcare provider tells you to.
- If your incision is closed with sutures or staples, they’ll probably be removed during your follow-up appointment.
- If your sutures are covered with Steri-Strips™ (thin pieces of paper tape), leave them in place until they fall off or until your healthcare provider takes them off.
**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®). You can buy a waterproof dressing from your local pharmacy. Remember, it’s important to keep your incisions dry.

After your sutures are removed and you start 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 healthcare provider 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 everyone. 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 your surgery was on your leg, don’t sit with your legs dangling for more than 1 hour at a time. For every hour 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.

- Keep doing the exercises in the “Exercises after your surgery” section until your healthcare provider tells you it’s OK to stop.

**Driving**

Ask your healthcare provider when you can drive. Don’t drive while you’re taking pain medication that may make you drowsy. You can ride in a car as a passenger at any time after you leave the hospital.

**Going back to work**

Talk with your healthcare provider about your job and when it may be safe for you to start working again. If your job involves lots of movement or heavy lifting, you may need to stay out a little longer than if you sit at a desk.

**Traveling**

Don’t travel by airplane until your healthcare provider says it’s OK. Talk with your healthcare provider before taking any long trips after your surgery.
When to call your healthcare provider

Call your healthcare provider if:

- You have a fever of 100.5 °F (38 °C) or higher
- You have pain that doesn't get better with pain medication
- You have chills
- You have shortness of breath
- You have bleeding that won’t stop
- There’s redness, drainage, or swelling around your incisions
- Your incisions smell bad
- There’s swelling in your legs that doesn’t get better after you raise your legs for 4 hours
- You have any problems you didn’t expect
- You have any questions or concerns

Contact information

Monday through Friday from 9:00 AM to 5:00 PM, call your healthcare provider’s office.

After 5:00 PM, during the weekend, and on holidays, call 212-639-2000 and ask to speak to the person on call for your healthcare provider.
Exercises after your surgery

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

Exercise tips

- Dress comfortably. 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 pain or discomfort and tell your physical therapist which exercises are hurting you. You can keep doing the other exercises.

Exercises

Do not do any of the exercises in this section without talking with your doctor and physical therapist. They may tell you to do additional exercises as well.

**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. Point your toes toward the floor.

4. Repeat 10 times.

Do this exercise every hour 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 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 (butt) 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 you’re awake.
Support Services

This section has a list of support services that may help you get ready for your surgery and recover safely.

As you read through this section, you can use the space below to write down any questions you want to ask your healthcare provider.

Notes _______________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________

MSK support services

Admitting Office
212-639-7606
Call if you have questions about your hospital admission, including requesting a private room.

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 the main lobby of Memorial Hospital and is open 24 hours a day. If you have an emergency, please call the hospital operator and ask for the chaplain on call.

Counseling Center
646-888-0200
Many people find that counseling helps them. We provide counseling for individuals, couples, families, and groups, as well as medications to help if you feel anxious or depressed. 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 many services to complement (go along with) traditional medical care, including music therapy, mind/body therapies, dance and movement therapy, yoga, and touch therapy.
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 Peer Support Program**
212-639-5007
You may find it comforting to speak with someone who has been through a treatment similar to yours. You can talk with a former MSK patient or caregiver through our Patient and Caregiver Peer Support Program. These conversations are confidential. They may take place in person or over the phone.

**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** can help if you’re dealing with cancer-related sexual health challenges such as premature menopause or fertility issues. For more information, or to make an appointment, call 646-888-5076.

- **Our Male Sexual and Reproductive Medicine Program** can help if you’re dealing with cancer-related sexual health challenges such as erectile dysfunction (ED). 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 cancer patients. They provide individual counseling and support groups throughout the course of treatment and can help you communicate with children and other family members. Our social workers can also help 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**
There are many other support services available to help you before, during, and after your cancer treatment. Some offer support groups and information, while others can help with transportation, lodging, and treatment costs.

Visit www.mskcc.org/pe/external_support_services for a list of these support services. You can also talk with an MSK social worker by calling 212-639-7020.
Educational Resources

This section has the educational resources mentioned in this guide. These resources will help you get ready for your surgery and recover safely after surgery.

As you read through these resources, you can use space below to write down any questions you want to ask your healthcare provider.

Notes _______________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
_____________________________________________________________________________________
Common Medications Containing Aspirin, Other Nonsteroidal Anti-inflammatory Drugs (NSAIDs), or Vitamin E

This information will help you identify medications that contain aspirin, other NSAIDs, or vitamin E. It’s important to stop taking these medications before many cancer treatments. They affect your platelets (blood cells that clot to prevent bleeding) and can increase your risk of bleeding during treatment.

Other dietary supplements (such as other vitamins and herbal remedies) can also affect your cancer treatment. For more information, read the resource Herbal Remedies and Cancer Treatment (www.mskcc.org/pe/herbal_remedies).

Instructions Before Your Cancer Treatment

If you take aspirin, other NSAIDs, or vitamin E, tell your healthcare provider. They’ll tell you if you need to stop taking it. You’ll also find instructions in the information about your treatment. Read the “Examples of Medications” section to see if your medications contain aspirin, other NSAIDs, or vitamin E.

Before your surgery

Follow these instructions if you’re having surgery or a surgical procedure. If your healthcare provider gives you other instructions, follow those instead.

- If you take aspirin or a medication that contains aspirin, you may need to change your dose or stop taking it 7 days before your surgery. Follow your healthcare provider’s instructions. Don’t stop taking aspirin unless your
healthcare provider tells you to.

- If you take vitamin E or a supplement that contains vitamin E, stop taking it 7 days before your surgery or as directed by your healthcare provider.

- If you take an NSAID or a medication that contains an NSAID, stop taking it 48 hours (2 days) before your surgery or as directed by your healthcare provider.

**Before your radiology procedure**

Follow these instructions if you’re having a radiology procedure (including Interventional Radiology, Interventional Mammography, Breast Imaging, and General Radiology). If your healthcare provider gives you other instructions, follow those instead.

- If you take aspirin or a medication that contains aspirin, you may need to stop taking it 5 days before your procedure. Follow your healthcare provider’s instructions. **Don’t stop taking aspirin unless your healthcare provider tells you to.**

- If you take an NSAID or a medication that contains an NSAID, you may need to stop taking it 24 hours (1 day) before your procedure. Follow your healthcare provider’s instructions.

**Before and during your chemotherapy**

Chemotherapy can lower your platelet count, which can increase your risk of bleeding. Whether you’re just starting chemotherapy or have been getting it, talk with your healthcare provider before taking aspirin, other NSAIDs, or vitamin E.

**Examples of Medications**

Medications are often called by their brand name. This can make it hard to know their ingredients. The lists below can help you identify medications that contain aspirin, other NSAIDs, or vitamin E.

These lists include the most common products, but there are others. **Make sure your healthcare provider always knows all the prescription and over-**
the-counter (not prescription) medications you’re taking, including patches and creams.

<table>
<thead>
<tr>
<th>Common Medications Containing Aspirin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggrenox®</td>
</tr>
<tr>
<td>Alka Seltzer®</td>
</tr>
<tr>
<td>Anacin®</td>
</tr>
<tr>
<td>Arthritis Pain Formula</td>
</tr>
<tr>
<td>Arthritis Foundation Pain Reliever®</td>
</tr>
<tr>
<td>ASA Enseals®</td>
</tr>
<tr>
<td>ASA Suppositories®</td>
</tr>
<tr>
<td>Ascriptin® and Ascriptin A/D®</td>
</tr>
<tr>
<td>Aspergum®</td>
</tr>
<tr>
<td>Asprimox®</td>
</tr>
<tr>
<td>Axotal®</td>
</tr>
<tr>
<td>Azdone®</td>
</tr>
<tr>
<td>Bayer® (most formulations)</td>
</tr>
<tr>
<td>BC® Powder and Cold formulations</td>
</tr>
<tr>
<td>Bufferin® (most formulations)</td>
</tr>
<tr>
<td>Buffets II®</td>
</tr>
<tr>
<td>Buffex®</td>
</tr>
</tbody>
</table>
Common NSAID Medications That Don’t Contain Aspirin

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Brand Name 1</th>
<th>Brand Name 2</th>
<th>Brand Name 3</th>
<th>Brand Name 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advil®</td>
<td>Duexis®</td>
<td>Mefenamic Acid</td>
<td>PediaCare Fever®</td>
<td></td>
</tr>
<tr>
<td>Advil Migraine®</td>
<td>Etodolac®</td>
<td>Meloxicam</td>
<td>Piroxicam</td>
<td></td>
</tr>
<tr>
<td>Aleve®</td>
<td>Feldene®</td>
<td>Menadol®</td>
<td>Ponstel®</td>
<td></td>
</tr>
<tr>
<td>Anaprox DS®</td>
<td>Fenoprofen</td>
<td>Midol®</td>
<td>Relafen®</td>
<td></td>
</tr>
<tr>
<td>Ansaïd®</td>
<td>Flurbiprofen</td>
<td>Mobic®</td>
<td>Saleto 200®</td>
<td></td>
</tr>
<tr>
<td>Arthrotec®</td>
<td>Genpril®</td>
<td>Motrin®</td>
<td>Sulindac</td>
<td></td>
</tr>
<tr>
<td>Bayer® Select Pain Relief Formula Caplets</td>
<td>Ibuprofen</td>
<td>Nabumetone</td>
<td>Toradol®</td>
<td></td>
</tr>
<tr>
<td>Celebrex®</td>
<td>Indomethacin</td>
<td>Nalfon®</td>
<td>Treximet®</td>
<td></td>
</tr>
<tr>
<td>Celecoxib</td>
<td>Indocin®</td>
<td>Naproxen</td>
<td>Vicoprofen®</td>
<td></td>
</tr>
<tr>
<td>Children’s Motrin®</td>
<td>Ketoprofen</td>
<td>Naprosyn®</td>
<td>Vimovo®</td>
<td></td>
</tr>
<tr>
<td>Clinoril®</td>
<td>Ketorolac</td>
<td>Nuprin®</td>
<td>Voltaren®</td>
<td></td>
</tr>
<tr>
<td>Daypro®</td>
<td>Lodine®</td>
<td>Orudis®</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diclofenac</td>
<td>Meclofenamate</td>
<td>Oxaprozin</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Products Containing Vitamin E

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

Most multivitamins contain vitamin E. If you take a multivitamin, 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. But, talk with your healthcare provider before taking acetaminophen if you’re getting chemotherapy.
### Medications Containing Acetaminophen

<table>
<thead>
<tr>
<th>Acetaminophen with Codeine</th>
<th>Esgic®</th>
<th>Percocet®</th>
<th>Vanquish®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aceta®</td>
<td>Excedrin P.M.®</td>
<td>Primlev®</td>
<td>Vicodin®</td>
</tr>
<tr>
<td>Acetaminophen with Codeine</td>
<td>Fiorcet®</td>
<td>Repan®</td>
<td>Wygesic®</td>
</tr>
<tr>
<td>Aspirin-Free Anacin®</td>
<td>Loracet®</td>
<td>Roxicet®</td>
<td>Xartemis XR®</td>
</tr>
<tr>
<td>Arthritis Pain Formula® Aspirin-Free</td>
<td>Lortab®</td>
<td>Talacen®</td>
<td>Xodol®</td>
</tr>
<tr>
<td>Datril®</td>
<td>Naldegesic®</td>
<td>Tempra®</td>
<td>Zydone®</td>
</tr>
<tr>
<td>Di-Gesic®</td>
<td>Norco®</td>
<td>Tylenol®</td>
<td></td>
</tr>
<tr>
<td>Endocet®</td>
<td>Panadol®</td>
<td>Tylenol® with Codeine No. 3</td>
<td></td>
</tr>
</tbody>
</table>

### 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 a day. It’s possible to take too much without knowing because it’s in many different prescription and over-the-counter 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.

### Common Abbreviations for Acetaminophen

<table>
<thead>
<tr>
<th>APAP</th>
<th>AC</th>
<th>Acetaminop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetamin</td>
<td>Acetam</td>
<td>Acetaminoph</td>
</tr>
</tbody>
</table>

Always read and follow the label on the product you’re taking. Don’t take more than 1 medication that contains acetaminophen at a time without talking with a member of your healthcare team.
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 (plant-based) 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 trouble 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 sedation or anesthesia.

**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 doesn’t cover all herbal remedies or possible side effects. Talk 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.

If you have any questions, contact a member of your healthcare team directly. If you're a patient at MSK and you need to reach a provider after 5:00 PM, during the weekend, or on a holiday, call 212-639-2000.

For more resources, visit www.mskcc.org/pe to search our virtual library.
PATIENT & CAREGIVER EDUCATION

Patient-Controlled Analgesia (PCA)

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

About PCA

PCA helps you control your pain by letting you give yourself pain medication. It uses a computerized pump to send pain medication into your vein (called an IV PCA) or into your epidural space (epidural PCA), which is near 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 isn’t right for everyone. Some people may not be able to use a PCA pump. Before you get a PCA pump, tell your doctor if you have weakness in your hands or think you may have trouble pushing the PCA button. You should also tell your doctor if you have sleep apnea. This may affect the way we prescribe your medication.

Using the PCA Pump

To give yourself pain medication, press the button attached to the pump when you
have pain (see Figure 1). The pump will send a safe dose of the medication 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 give you medication in 2 ways:

- **As needed.** You get your pain medication only when you press the button. It won’t let you 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” way. This lets you take extra doses safely if you’re having pain.

Tell your doctor if the PCA isn’t helping with your pain. You should also tell your doctor if your pain changes, gets worse, feels different than before, or if you feel pain in a new place. Your doctor may change the medication to one that may work better for you.

**Side Effects**

Pain medication you get through a PCA can have side effects. Tell your healthcare provider if you have any of these problems:

- Constipation (having fewer bowel movements than usual)
- Nausea (feeling like you’re going to throw up)
- Vomiting (throwing up)
- 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
- Trouble urinating (peeing)
- Any other side effects or problems

Your doctor may adjust your dose or give you a different medication with fewer side effects.

If you have any questions, contact a member of your healthcare team directly. If you're a patient at MSK and you need to reach a provider after 5:00 PM, during the weekend, or on a holiday, call 212-639-2000.

For more resources, visit www.mskcc.org/pe to search our virtual library.
Preventing an Infection in Your Bone or Joint Replacement Prosthesis

This information will explain how to take antibiotics to prevent an infection in the area of your bone or joint replacement prosthesis.

When to Take Antibiotics

An infection in your prosthesis can lead to serious health problems. To prevent an infection, you must take an antibiotic when you have a bacterial infection.

You’ll also need to take antibiotics before having a procedure done if you’ll be at risk of an infection or if you have a cut or injury. Taking antibiotics before a procedure to prevent an infection is called taking antibiotics prophylactically.

Treating infections

If you get a bacterial infection anywhere in your body, including your throat, chest, bladder, or on your skin, let your healthcare provider know that you have a prosthesis and need antibiotics. It’s 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:

- Anything that may cause bleeding or a break in your skin, such as dental work, removal of a corn or callus, or injury when cutting your toenails. Unclean tools 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.

If you’re going to have a procedure that has a risk of causing infection, you should take an antibiotic before the procedure. Tell your healthcare provider doing the procedure that you have a prosthesis and that you need to take an antibiotic before your procedure. You should also take an antibiotic if you have a cut or injury that causes bleeding.

If your healthcare provider isn’t sure what to prescribe or if you have a cut or injury, call the surgeon who replaced your joint or bone. Take the antibiotics as prescribed. Usually, 1 dose is enough, but you may need to take more if you have bleeding after your procedure.
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’re having. Follow their instructions.

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 it</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 milligrams (mg)/kilograms (kg)</td>
</tr>
<tr>
<td>Ampicillin (If you can’t take an oral</td>
<td>A shot in the muscle (IM) or in the vein (IV) within 30 minutes of having the</td>
</tr>
<tr>
<td>antibiotic (antibiotic you take by mouth).</td>
<td>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’re allergic to penicillin.)</td>
<td>By mouth, 1 hour before the procedure.</td>
</tr>
<tr>
<td></td>
<td>Adults: 800 mg or 600 mg</td>
</tr>
<tr>
<td></td>
<td>Children: 20 mg/kg</td>
</tr>
</tbody>
</table>

If you have any questions, contact a member of your healthcare team directly. If you’re a patient at MSK and you need to reach a provider after 5:00 PM, during the weekend, or on a holiday, call 212-639-2000.

For more resources, visit www.mskcc.org/pe to search our virtual library.

Preventing an Infection in Your Bone or Joint Replacement Prosthesis - Last updated on February 2, 2021
All rights owned and reserved by Memorial Sloan Kettering Cancer Center