



About Your Anterior Pelvic Exenteration

This guide will help you get ready for your anterior pelvic exenteration (eg-ZEN-teh-RAY-shun) at 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: _____



Visit www.mskcc.org/pe/anterior_pelvic_exenteration to view this guide online.

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About Your Surgery

An anterior pelvic exenteration is a surgery to remove organs from your urinary and gynecologic systems. You may be having this surgery because you have cancer in your cervix or another organ in your urinary or gynecologic systems.

About your urinary system

Your urinary system is made up of organs that make urine (pee) and get it out of your body. It includes your:

- Kidneys. These filter toxins out of your blood and make urine.
- Ureters. These carry urine from your kidneys to your bladder.
- Bladder. This stores your urine until you feel like you need to urinate.
- Urethra. This carries urine from your bladder out of your body. In females, it's located in front of the vagina.

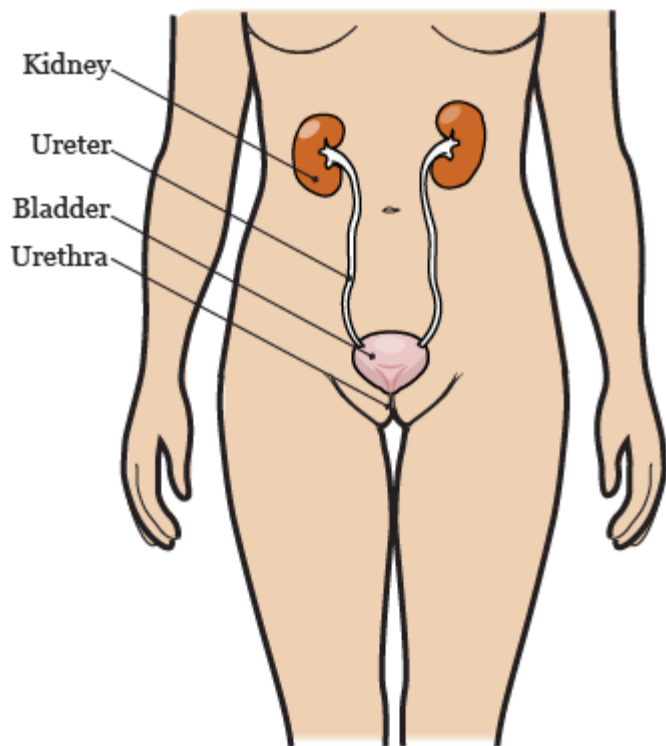


Figure 1. Your urinary system

Figure 1 shows the parts of your urinary system.

During your surgery, your surgeon will remove your bladder and urethra. This means you'll need a new place for urine to leave your body. Your surgeon will connect your ureters to a new urinary collection system called a urinary diversion or urostomy.

Types of urinary diversions

There are 2 types of urinary diversions: an ileal conduit and a urinary pouch. Each type opens onto your abdomen (belly). The opening is called a stoma.

- With an ileal conduit, your urine will drain into a bag that you put around your stoma. You'll drain the bag as needed.
- With a urinary pouch, you'll put a drainage catheter (thin, flexible tube) into the stoma several times a day to drain your urine.

Your healthcare provider will talk with you about which urinary diversion you'll have. Your nurse will give you a resource that describes the type of diversion you'll have. They'll also teach you how to care for it.

About your gynecologic system

Your gynecologic system includes your:

- Ovaries
- Fallopian tubes
- Uterus
- Cervix
- Vagina

Figure 2 shows the parts of your gynecologic system.

During your surgery, your surgeon will remove your ovaries, fallopian tubes, uterus, and cervix. This means you won't be able to have children naturally. If you want information about fertility (ability to get pregnant) options and your cancer treatment, read *Fertility Preservation Before Cancer Treatment: Options for People Born with Ovaries and a Uterus*.

You can ask your healthcare provider for a copy of find it online at www.mskcc.org/pe/fertility_starting_treatment

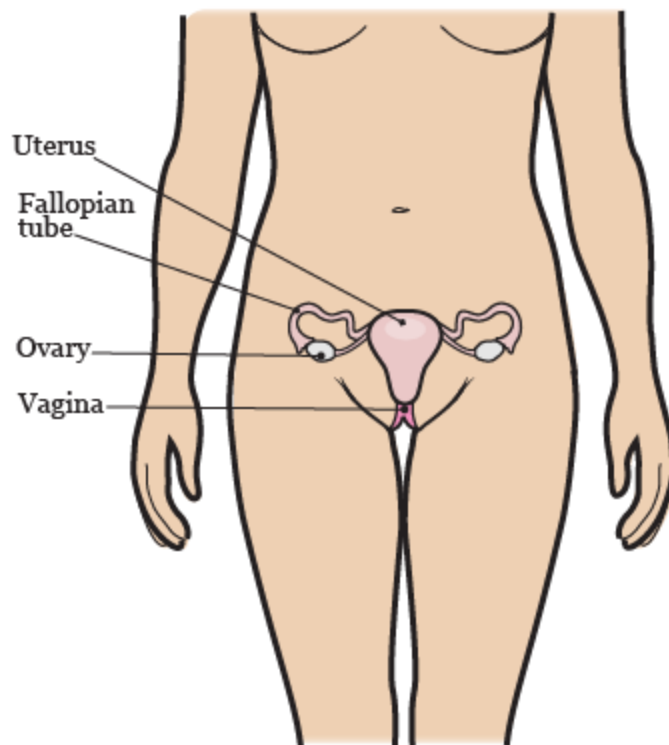


Figure 2. Your gynecologic system

Your surgeon may also remove all or part of your vagina. They'll talk with you about this if it's needed.

For some people, the vagina can be reconstructed. Ask your surgeon if this is an option for you. If it is, you'll meet with a plastic surgeon to discuss this surgery. The reconstruction would be done at the end of your surgery. Your plastic surgeon will create a new vaginal canal from the muscles and skin of other areas of your body. Your nurse will tell you about how to care for your new vagina. If you don't want your vagina reconstructed, the area can be closed or covered with a flap of skin.

If your vagina isn't removed, you should be able to have vaginal intercourse (sex). If you have vaginal reconstruction, you should be able to have intercourse again when the area heals. If you don't have vaginal reconstruction, remember that sex can include other forms of intimacy. Ask your surgeon if your clitoris will be removed and how much feeling you'll still have in your vaginal area.

Your healthcare providers will tell you what to expect after surgery. For example, sensations in your vaginal area may not be the same as they were before your surgery. Your surgeon can refer you to our Female Sexual Medicine & Women's Health Program so you can meet with a therapist and discuss your concerns.

Meeting with your healthcare team

You'll see many different healthcare providers before your surgery. Each one will describe their role in your care and answer your questions. You may see team members such as:

- Surgeons from other departments who will work with your surgeon to complete your surgery.
- A psychologist who works with people having this surgery.
- A wound, ostomy, and continence (WOC) nurse who will talk to you about the stoma you'll have.

It may be helpful for you to write down questions as you think of them. Bring your list of questions to your appointments.

You may also be able to speak with someone who has had the surgery. Your social worker can help plan this for you.

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®)
- I take prescription medications (medications my healthcare provider prescribes), 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'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.

There are others, so be sure your healthcare provider knows all the medications you're taking.

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 information, visit www.mskcc.org/caregivers or read *A Guide for Caregivers*. You can ask your healthcare provider for a copy or find it online at www.mskcc.org/pe/guide_caregivers

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.

Do breathing and coughing exercises

Practice taking deep breaths and coughing before your surgery. Your healthcare provider will give you an incentive spirometer to help expand your lungs. For more information, read the resource *How to Use Your Incentive Spirometer*. You can find it in the "Educational Resources" section of this guide.

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.

Buy bowel preparation supplies, if needed

Your healthcare provider may tell you to do a bowel preparation (clear the stool from your body) before your surgery. If they do, they'll tell you what to do. You'll need to buy the following supplies:

- 1 (238-gram) bottle of polyethylene glycol (MiraLAX®). You can buy this at your local pharmacy. You don't need a prescription.
- 1 (64-ounce) bottle of a clear liquid. For examples of clear liquids, read the section "Follow a clear liquid diet, if needed."
- Extra clear liquids to drink while you're following a clear liquid diet, if needed.

Your healthcare provider will give you a prescription for antibiotics to take as part of your bowel preparation. Be sure to also pick these up.

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 *How To Check if a Medicine or Supplement Has Aspirin, Other NSAIDs, Vitamin E, or Fish Oil*. 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 *How To Check if a Medicine or Supplement Has Aspirin, Other NSAIDs, Vitamin E, or Fish Oil*. You can find it in the "Educational Resources" section of this guide.

1 day before your surgery

Follow a clear liquid diet

You'll need to follow a clear liquid diet the day before your surgery. A clear liquid diet includes only liquids you can see through. You can find examples in the "Clear liquid diet" table.

While you're following a clear liquid diet:

- Do not eat any solid foods.
- Try to drink at least 1 (8-ounce) cup of clear liquid every hour you're awake.
- Drink different types of clear liquids. Do not just drink water, coffee, and tea.
- Do not drink any liquids you can't see through, such as milk or smoothies.
- Do not drink sugar-free liquids unless you have diabetes and a member of your care team tells you to.

For people with diabetes

If you have diabetes, ask the healthcare provider who manages your diabetes what you should do while you're following a clear liquid diet.

- If you take insulin or another medication for diabetes, ask if you need to change the dose.
- Ask if you should drink sugar-free clear liquids.
- Make sure to check your blood sugar level often while you're following a clear liquid diet. If you have any questions, talk with your healthcare provider.

Clear liquid diet

	OK to have	Do not have
Soups	<ul style="list-style-type: none"> • Clear broth, bouillon, and consommé. 	<ul style="list-style-type: none"> • Anything with pieces of food or seasoning.
Sweets	<ul style="list-style-type: none"> • Gelatin, such as Jell-O®. • Flavored ices. • Hard candies, such as Life Savers®, lemon drops, and peppermints. 	<ul style="list-style-type: none"> • All others.
Drinks	<ul style="list-style-type: none"> • Clear fruit juices, such as lemonade, apple, cranberry, and grape juices. • Soda, such as ginger ale, 7UP®, Sprite®, and seltzer. • Sports drinks, such as Gatorade® and Powerade®. • Coffee without milk or creamer. • Tea without milk or creamer. • Water, including carbonated (fizzy) and flavored water. • Clear nutritional drinks, such as Boost® Breeze, Ensure Clear™, Pedialyte®, and Diabetishield®. 	<ul style="list-style-type: none"> • Juices with pulp. • Nectars. • Smoothies or shakes. • Milk, cream, and other dairy products. • Nut milks, plant milks, non-dairy creamers, and other dairy alternatives. • Drinks with alcohol.

Start your bowel preparation, if needed

Your healthcare provider will tell you if you need to do a bowel preparation the day before your surgery. If you do, follow the instructions below.

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

At 5:00 PM on the day before your surgery, start drinking the MiraLAX mixture. The MiraLAX will cause frequent bowel movements, so make sure you're near a bathroom.

- Drink 1 (8-ounce) glass of the mixture every 15 minutes until it's gone.
- When you finish the MiraLAX mixture, drink 4 to 6 glasses of clear liquids. You can keep drinking clear liquids until midnight, but you don't have to.
- Apply zinc oxide ointment or Desitin® to the skin around your anus after every bowel movement. This helps prevent irritation.

At 7:00 PM on the day before your surgery, take your antibiotics as instructed.

At 11:00 PM on the day before your surgery, take your antibiotics as instructed.

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.

Visit www.msk.org/parking for parking information and directions to all MSK locations.

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



Stop eating at midnight (12 a.m.) the night before your surgery.
This includes hard candy and gum.

If your healthcare provider told you to stop eating earlier than midnight, follow their instructions. Some people need to fast (not eat) for longer before their surgery.

The morning of your surgery

Instructions for drinking

Between midnight (12 a.m.) and 2 hours before your arrival time, only drink the liquids on the list below. Do not eat or drink anything else. Stop drinking 2 hours before your arrival time.

- Water.
- Clear apple juice, clear grape juice, or clear cranberry juice.
- Gatorade or Powerade.
- Black coffee or plain tea. It's OK to add sugar. Do not add anything else.
 - Do not add any amount of any type of milk or creamer. This includes plant-based milks and creamers.
 - Do not add honey.
 - Do not add flavored syrup.

If you have diabetes, pay attention to the amount of sugar in these drinks. It will be easier to control your blood sugar levels if you include sugar-free, low-sugar, or no added sugar versions of these drinks.

It's helpful to stay hydrated before surgery, so drink if you are thirsty. Do not drink more than you need. You will get intravenous (IV) fluids during your surgery.



Stop drinking 2 hours before your arrival time. This includes water.

Take your medicines as instructed

A member of your care team will tell you which medicines to take the morning of your surgery. Take only those medicines with a sip of water. Depending on what you usually take, this may be all, some, or none of your usual morning medicines.

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

- Your breathing device for sleep apnea (such as your CPAP device), 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 aids, dentures, prosthetic devices, wig, and religious articles), if you have any.
- This guide. You'll use it when you learn how to care for yourself after surgery.

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.

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 surgeon 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 devices, wig, and religious articles, if you have them.

You'll either walk into the operating room or a staff member will bring you there 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. A urinary (Foley) catheter will also be placed to drain urine (pee) from your bladder. Your breathing tube is usually taken out while you're still in the operating room.

Notes _____

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.

Pain medication

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

- If you're getting epidural pain medication, it'll 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'll 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 online at www.mskcc.org/pe/pca or ask your healthcare provider for a copy.

Tubes and drains

You'll have tubes, drains, pouches, and bandages on your abdomen (see Figure 3). They may include:

- Jackson-Pratt (JP) drains to drain fluid from around your incisions. They'll be removed when your incisions stop draining.
- A catheter to drain urine from your urinary pouch.
- A drainage tube at the incision site. This serves as a safety catheter. It's placed in case the catheter in your urinary pouch gets blocked or comes out. It will be clamped shut.
- A urostomy pouch on your ileal conduit stoma to collect urine.

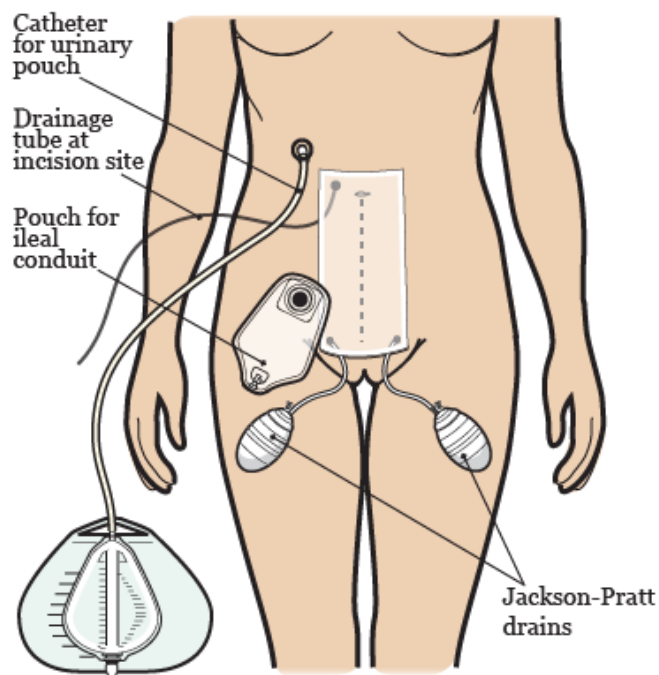


Figure 3. Tubes, drains, and pouches after your surgery

You'll also have:

- Bandages and drains on your upper inside thighs if you had vaginal reconstruction.
- An IV line to give you fluids.
- Compression boots on your calves to help your blood flow. You'll wear these whenever you're in bed.

Your abdomen will become more swollen over the next few days after your surgery. After that, the swelling will go down.

Most of the drains and tubes will be removed over the next days to weeks. In about 3 to 6 weeks, most people will have either 1 stoma for a urinary pouch or a pouch for the ileal conduit (see Figure 4).

Your WOC nurse and other nursing staff will teach you how to care for your stoma and urinary diversion as you recover.

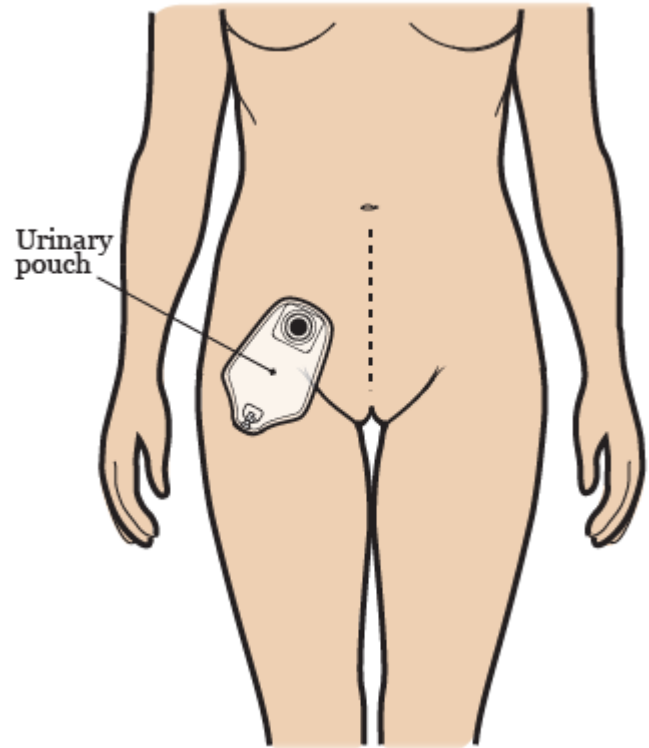


Figure 4. Your urinary pouch

Moving to your hospital room

Most people stay in the PACU overnight. After your stay in the PACU, a staff member will take 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. Most people stay in the hospital for 4 to 7 days.

When you're taken to your hospital room, you'll meet one of the nurses who will care for you while you're in the hospital. While you're in the hospital, your healthcare providers will teach you how to care for yourself while you're recovering from your surgery.

If you had vaginal reconstruction, you won't be able to sit for 6 to 8 weeks. You can lie on your back or side or stand. Your nurse will help you with this.

Managing your pain

You may have pain at your incision sites and your abdomen.

- If you have an epidural catheter, you'll get pain medication into your epidural space. You'll be able to control your medication using a PCA device.
- If you don't have an epidural catheter, you'll get pain medication in your IV line.
- Once you're able to eat normal 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. Controlling your pain will help you recover better.

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

Moving around and walking

Moving around and walking will help lower your risk for blood clots and pneumonia (lung infection). It will also help you start passing gas and having bowel movements (pooping) again. Your nurse, physical therapist, or occupational therapist will help you move around, if needed.

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 in the "Educational Resources" section of this guide.
- Do coughing and deep breathing exercises. A member of your healthcare team will teach you how.

Eating and drinking

Your diet will advance slowly after surgery. First, you'll have clear liquids. After that, you can start eating normal foods again, as tolerated.

When you're able to eat normal foods again, it's important to eat a balanced diet high in protein to 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 ask your healthcare provider for a copy or find it online at www.mskcc.org/pe/eating_cancer_treatment

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

Caring for your drains and incisions

You'll likely have some bleeding from most of your incisions or around your drains. You may also have some discharge and tenderness around your incisions and drains for a few days. Your nurses will show and tell you what's normal and expected as they care for you. You'll also start to learn how to care for your stoma and incisions.

Some of the tubes and drains may be removed before you're discharged from the hospital. If you go home with the drains, your nurses will teach you how to care for them.

If you have an incision that was closed with staples, the staples are usually taken out before you leave the hospital. Some people will have them removed at their first follow-up visit.

Showering

You can shower while you're in the hospital. Your healthcare provider will tell you when it's OK to start. Wash your incisions with a 4% CHG solution antiseptic skin cleanser such as Hibiclens until your staples are removed.

Planning for discharge

Before you go home, one of your healthcare providers will give you the supplies you need to care for yourself for the first month. After that, you can order your supplies from an outside source.

Your discharge nurse case manager will arrange to have a visiting nurse see you at home. The visiting nurse will help you care for your drains and stoma.

You may still have drains in when you go home. Ask your healthcare provider when they'll be removed. Your visiting nurse will help you while you're learning to care for your incisions and urinary diversion.

You'll get a prescription for pain medication. Take your medication as instructed by your doctor and as you need it. Don't drive or drink alcohol while you're taking prescription pain medication.

Read the resource *Gynecology Service: What You Should Know About Going Home* for more information about getting ready for your discharge. You can find it online at www.mskcc.org/pe/gyn_going_home or ask your healthcare provider for a copy.

Leaving the hospital

By the time you're ready to leave the hospital, your incisions will have started to heal. Before you leave, look at your incisions with one of your healthcare providers. Knowing what they look like will help you notice any changes later.

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.

Filling out your Recovery Tracker

We want to know how you're feeling after you leave the hospital. To help us continue caring for you, we'll send questions to your MyMSK account every day for 10 days after you leave the hospital. These questions are known as your Recovery Tracker.

Fill out your Recovery Tracker every day before midnight (12:00 AM). It only takes 2 to 3 minutes to complete. Your answers to these questions will help us understand how you're feeling and what you need.

Based on your answers, we may reach out to you for more information or ask you to call your surgeon's office. You can always contact your surgeon's office if you have any questions. For more information, read *About Your Recovery Tracker*. You can find it online at www.mskcc.org/pe/recovery_tracker 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). Talk with your healthcare provider about how to prevent and manage constipation.

Caring for your incision

Take a shower every day to clean your incision. Follow the instructions in the “Showering” section below.

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

Call your healthcare provider’s office if:

- The skin around your incision is very red.
- The skin around your incision is getting more red.
- You see drainage that looks like pus (thick and milky).
- Your incision smells bad.

If you go home with staples in your incision, your healthcare provider will take them out during your first appointment after surgery. It’s OK to get them wet.

Caring for your urinary diversion

Your nurse will teach you how to care for your urinary diversion before you leave the hospital. Your WOC nurse will give you written information to help you remember at home.

Showering

Take a shower every day to clean your incision. If you have staples in your incision, it’s OK to get them wet.

Take your bandage(s) off before you shower. Use soap during your shower, but don’t put it directly on your incision. Don’t rub the area around your incision.

After you shower, pat the area dry with a clean towel. Leave your incision uncovered or cover it with a small bandage if your clothing (such as the waistline of your pants) may rub it.

Don’t take a bath for the first 4 weeks after your surgery.

Eating and drinking

You can eat all the foods you did before your surgery unless your healthcare provider gives you other instructions. Eating a balanced diet with lots of calories and protein will help you heal after surgery. Try to eat a good protein source (such as meat, fish, or eggs) at each meal. You should also try to eat fruits, vegetables, and whole grains.

It’s also important to drink plenty of liquids. Choose liquids without alcohol or caffeine. Try to drink 8 to 10 (8-ounce) glasses of liquids every day. For more tips on eating and

drinking after surgery, 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.

Physical activity and exercise

When you leave the hospital, your incision will look like it's healed on the outside, but it won't be healed on the inside. For the first 6 to 8 weeks after your surgery:

- Don't lift anything heavier than 10 pounds (4.5 kilograms).
- Don't do any strenuous activities (such as jogging and tennis).
- Don't play any contact sports (such as football).

Talk with your healthcare provider before you start doing strenuous exercise or lifting heavy objects.

Doing aerobic exercise, such as walking and stair climbing, will help you gain strength and feel better. Walk at least 2 to 3 times a day for 20 to 30 minutes. You can walk outside or indoors at your local mall or shopping center.

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.

Sexual activity

If you have a vagina or a reconstructed vagina, don't put anything inside it or have vaginal intercourse until your first appointment after surgery. At this appointment, your healthcare provider will tell you when you can start having vaginal intercourse again.

If your healthcare provider told you it's OK have vaginal intercourse but you feel pain during vaginal intercourse, call them. They can refer you to physical therapy for an evaluation.

Driving

Your healthcare provider will tell you when you can start driving again. 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

Most people can go back to work about 8 weeks after surgery. 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 for 2 weeks after your surgery. After 2 weeks, talk with your healthcare provider about when you can start traveling again.

Managing your feelings

This surgery will change your body, and it will probably take time for you to get used to these changes. You may feel scared, angry, or worried. You may have questions or fears about how this surgery will impact your sexuality. These feelings are normal, and many people feel the same way.

Everyone gets used to these changes in their own way. For some people, it can take a few months to get used to their changed body image. For other people, it can take longer. You'll get stronger as time goes on. You'll be more confident in caring for your incisions and pouch. Your appetite and energy will get better. And eventually you'll be able to start doing most of your usual activities again.

We have many resources to help you. Your healthcare providers will answer your questions. We also have social workers, psychologists, psychiatrists, and WOC nurses who have helped many people through this change. You can have one-on-one counseling, or you can join one of our online or in-person support groups. We also have clergy available for spiritual support. You may be able to meet with other people who have had this surgery, and who can talk with you and answer your questions. Talk with your nurse if you're interested in this.

To address issues with sexual health and intimacy, you can see someone from our Female Sexual Medicine & Women's Health Program. For more information or to set up an appointment, call 646- 888-5076.

When to call your healthcare provider



Call your healthcare provider if:

- You have a fever of 100.4 °F (38 °C) or higher.
- You have chills.
- You're having trouble breathing.
- The skin around your incision is warmer than normal.
- The skin around your incision is getting redder.
- The area around your incision is starting to swell.
- Swelling around your incision is getting worse.
- You have discharge coming from your incisions.
- You have a bad odor coming from your incisions.
- You have pain that doesn't get better with pain medication.
- You have vaginal bleeding or bad-smelling vaginal discharge.
- You feel burning when you pass urine.
- You can't pass urine into your stoma or pouch.
- 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.

Gynecologic surgery support services

United Ostomy Associations of America, Inc (UOAA)

800-826-0826

www.ostomy.org

Volunteer group who supports people who have or will have an ostomy and provides educational resources.

Women's Cancer Network: Gynecological Cancer Foundation (GCF)

312-578-1439

www.foundationforwomenscancer.org

Nonprofit organization that provides education and supports research on gynecologic cancers.

Wound, Ostomy, Continence Nurses Society

888-224-WOCN (9626)

www.wocn.org

Provides patient resource from nursing members who have special training in the care of people with wounds, ostomies, and continence problems.

MSK support services

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

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 information if you're interested in donating blood or platelets.

Bobst International Center

332-699-7968

MSK welcomes patients from around the world. If you're an international patient, call for help arranging your care.

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.

Female Sexual Medicine and Women's Health Program
646-888-5076

Cancer and cancer treatments can have an impact on your sexual health. 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. Call for more information or to make an appointment. We can help you take action and address sexual health issues before, during, or after your treatment.

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.

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 Peer Support Program
212-639-5007

You may find it comforting to speak with someone who has been through a treatment like 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.

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.

Spiritual Care
212-639-5982

Our chaplains (spiritual counselors) 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.

MSK's interfaith chapel is located near Memorial Hospital's main lobby. It's open 24 hours a day. If you have an emergency, call 212-639-2000. Ask for the chaplain on call.

Tobacco Treatment Program
212-610-0507

If you want to quit smoking, MSK has specialists who can help. Call for 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.

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.

Notes _____

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 _____



PATIENT & CAREGIVER EDUCATION

Herbal Remedies and Cancer Treatment

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

About Herbal Remedies

Herbal remedies are any herbs, botanical (plant-based) supplements, or dietary supplements you take for their health benefits. These may come as tablets, capsules, powders, teas, liquid extracts, and fresh or dried plants.

Some herbal remedies can help prevent or manage side effects of cancer or your treatment. The herbal remedies that can help you depend on what symptoms you have and what treatment you're getting.

Even though herbal remedies can feel safe, they may not all be safe. Herbal remedies do not go through the same testing as prescription medications to make sure they work and are safe.

Some herbal remedies may be harmful. This is because they can:

- Affect how your other medications work.
- Raise or lower your blood pressure.
- Thin your blood and increase your risk of bleeding.
- Keep radiation therapy from working as well as it should.
- Change how your body reacts to sedation (medication to make you calmer) or general anesthesia (medication to make you sleepy).

Talk with your healthcare provider about any herbal remedies or other

supplements you are taking. They can provide an open and safe space to talk about these products.

For more information about herbs and supplements, visit www.aboutherbs.com or call MSK's Integrative Medicine Service at 646-608-8550.

Stop taking herbal remedies before your treatment

Stop taking herbal remedies and other dietary supplements 7 days (1 week) before you:

- Have surgery.
- Start chemotherapy.
- Start radiation therapy.
- Have certain procedures. Your healthcare provider will let you know if you need to stop taking herbal remedies before your procedure.

Herbal remedies and other dietary supplements can cause bleeding and affect your treatment. Follow your healthcare provider's instructions for when to restart taking herbal remedies.

You can still use some herbs in your food and drinks, such as using spices in cooking and drinking tea. Herbal remedies are stronger than the herbs you cook with.

Common Herbal Remedies and Their Effects

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

Echinacea (EH-kih-NAY-shuh)

- Can cause rare but serious allergic reactions, such as a rash or trouble breathing.
- Can keep medications that weaken your immune system from working as well as they should.

Garlic

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

Gingko (also known as Gingko biloba)

- Can increase your risk of bleeding.

Ginseng (JIN-seng)

- Can keep sedation or general anesthesia from working as well as they should.
- Can increase your blood pressure.
- Can increase your risk of bleeding.
- Can lower your blood glucose (sugar) level.

Turmeric (TER-mayr-ik)

- Can keep chemotherapy from working as well as it should.

St. John's Wort

- Can keep some medications from working as well as they should.
- Can make your skin more sensitive to radiation or laser treatment.

Valerian (vuh-LEER-ee-un)

- Can make sedation or general anesthesia affect you more than they should.

Herbal formulas

- Herbal formulas contain many different herbs and dosages.
- Stop taking these products 7 days (1 week) before treatment. Do not start taking herbal formulas again until your healthcare provider tells you it is safe.

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

Contact Information

- To schedule a consultation with a healthcare provider in Integrative Medicine, call 646-608-8550.
- To make an appointment for Integrative Medicine Service's therapies, classes, and workshops, call 646-449-1010.

For more information, visit www.mskcc.org/IntegrativeMedicine or read *Integrative Medicine Therapies and Your Cancer Treatment* (www.mskcc.org/pe/integrative_therapies).

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

Herbal Remedies and Cancer Treatment - Last updated on May 5, 2022

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PATIENT & CAREGIVER EDUCATION

How To Check if a Medicine or Supplement Has Aspirin, Other NSAIDs, Vitamin E, or Fish Oil

This information will help you check if your medicines or dietary supplements have aspirin, other NSAIDs, vitamin E, or fish oil as an active ingredient. NSAID stands for nonsteroidal anti-inflammatory drug.

It's important to stop taking these medicines and supplements before many cancer treatments. They affect your platelets (blood cells that clot to prevent bleeding) and can raise your risk of bleeding.

Other dietary supplements, such as vitamins and herbal remedies, can also affect your cancer treatment. Read *Herbal Remedies and Cancer Treatment* (www.mskcc.org/pe/herbal_remedies) to learn more.

Make sure your healthcare provider always knows all the prescription and over-the-counter medicines and supplements you're taking. This includes patches and creams.

A prescription medicine is one you can only get with a prescription from your healthcare provider. An over-the-counter medicine is one you can buy without a prescription.

What is an active ingredient?

An active ingredient is the part of a medicine or supplement that makes it work. Some medicines and supplements have just one active ingredient. Others have more. For example:

- Ibuprofen is the active ingredient in Advil® and Motrin®. Ibuprofen is an NSAID.
- Naproxen is the active ingredient in Aleve®. Naproxen is an NSAID.
- Acetaminophen is the active ingredient in Tylenol®.
- Aspirin, acetaminophen, and caffeine are the active ingredients in Excedrin®.

Generic medicines sometimes use their active ingredient as their name. But people often call medicines and supplements by a brand name, even if they're generic. This can make it hard to know their active ingredients.

How to find a medicine or supplement's active ingredients

You can always find the active ingredients by reading the label.

Over-the-counter medicines

Over-the-counter medicines list their active ingredients in the "Drug Facts" label (see Figure 1). Active ingredients are always the first thing on the Drug Facts label.

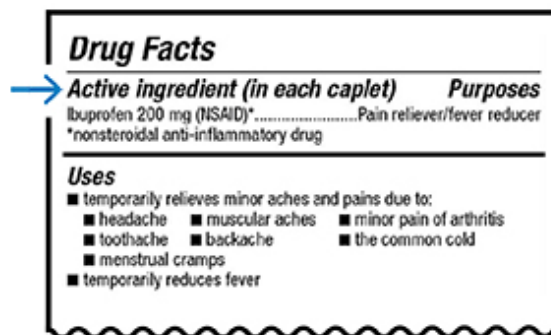


Figure 1. Active ingredients on an over-the-counter medicine label

Prescription medicines

Prescription medicines list their active ingredients on the label. Their active ingredients and their generic name are the same thing.

Labels often look different depending on which pharmacy you use. Here's an example of where to find a medicine's active ingredients (generic name) on a label from MSK's pharmacy (see Figure 2).

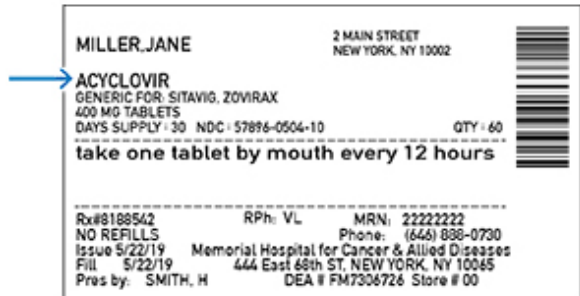


Figure 2. Active ingredients on a prescription medicine label

Dietary supplements

Dietary supplements list their active ingredients in the "Supplement Facts" label (see Figure 3). The active ingredients always have an amount per serving and % daily value included.

	Amount Per Serving	% Daily Value
Vitamin A (as retinyl acetate and 50% as beta-carotene)	5000 IU	100%
Vitamin C (as ascorbic acid)	60 mg	100%
Vitamin D (as cholecalciferol)	400 IU	100%
Vitamin E (as di-alpha tocopheryl acetate)	90 IU	100%
Thiamin (as thiamin mononitrate)	1.5 mg	100%
Riboflavin	1.7 mg	100%
Niacin (as niacinamide)	20 mg	100%
Vitamin B ₆ (as pyridoxine hydrochloride)	2.0 mg	100%
Folate (as folic acid)	400 mcg	100%
Vitamin B ₁₂ (as cyanocobalamin)	6 mcg	100%
Biotin	30 mcg	10%
Pantothenic Acid (as calcium pantothenate)	10 mg	100%

Other ingredients: Gelatin, lactose, magnesium stearate, microcrystalline cellulose, FD&C Yellow No. 6, propylene glycol, propylparaben, and sodium benzoate.

Figure 3. Active ingredients on a supplement label

Active ingredients to look for

If your medicine or supplement has any of these active ingredients, you may need to stop taking it before, during, or after your cancer treatment or surgery. Follow your care team's instructions.

Active ingredients to look for		
<ul style="list-style-type: none">• Acetylsalicylic acid• Alpha-linolenic acid (ALA)• Aspirin• Acetaminophen*• Celecoxib• Diclofenac• Diflunisal• Docosahexaenoic acid (DHA)• Eicosapentaenoic acid (EPA)	<ul style="list-style-type: none">• Etodolac• Fish oil• Fenoprofen Flurbiprofen• Ibuprofen• Indomethacin• Ketoprofen• Ketorolac• Meclofenamate• Mefenamic acid• Meloxicam	<ul style="list-style-type: none">• Nabumetone• Naproxen• Omega-3 fatty acids• Omega-6 fatty acids• Oxaprozin• Piroxicam• Sulindac• Tolmetin• Vitamin E

* 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		
<ul style="list-style-type: none">• APAP• Acetamin	<ul style="list-style-type: none">• AC• Acetam	<ul style="list-style-type: none">• Acetaminop• Acetaminoph

About acetaminophen (Tylenol)

In general, acetaminophen is safe to take during cancer treatment. It doesn't affect platelets. That means it will not raise your chance of bleeding. If you're getting chemotherapy, talk with your healthcare provider before taking acetaminophen.

There is a limit to how much acetaminophen you can take in a day. Always follow the instructions from your care team or on the medicine's label.

Acetaminophen is in many different prescription and over-the-counter medicines. It's possible to take too much without knowing. **Always read the label on the medicines you take.** Do not take more than 1 medicine that has acetaminophen at a time without talking with a member of your care team.

Instructions before your cancer treatment

Tell your healthcare provider if you take aspirin, other NSAIDs, vitamin E, or fish oil. They'll tell you if you need to stop taking it. You'll also find instructions in the information about your treatment.

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 medicine that has aspirin, you may need to change your dose or stop taking it 7 days before your surgery. Follow your healthcare provider's instructions. **Do not stop taking aspirin unless your healthcare provider tells you to.**
- If you take vitamin E, fish oil, or a supplement that has vitamin E or fish oil, stop taking it 7 days before your surgery or as directed by your healthcare provider.
- If you take an NSAID or a medicine that has 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 medicine that has aspirin, you may need to stop taking it 5 days before your procedure. Follow your healthcare provider's instructions. **Do not stop taking aspirin unless your healthcare provider tells you to.**
- If you take an NSAID or a medicine that has 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. No matter if you're just starting chemotherapy or have been getting it, talk with your healthcare provider before taking aspirin, other NSAIDs, vitamin E, or fish oil.

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

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

How To Check if a Medicine or Supplement Has Aspirin, Other NSAIDs, Vitamin E, or Fish Oil - Last updated on November 29, 2023

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PATIENT & CAREGIVER EDUCATION

How To Use Your Incentive Spirometer

This information will help you learn how to use your incentive spirometer (in-SEN-tiv spy-rah-MEE-ter). It also answers some common questions about it.

About your incentive spirometer

After your surgery you may feel weak and sore, and it may be uncomfortable to take deep breaths. Your healthcare provider may recommend using a device called an incentive spirometer (see Figure 1). It helps you practice taking deep breaths.

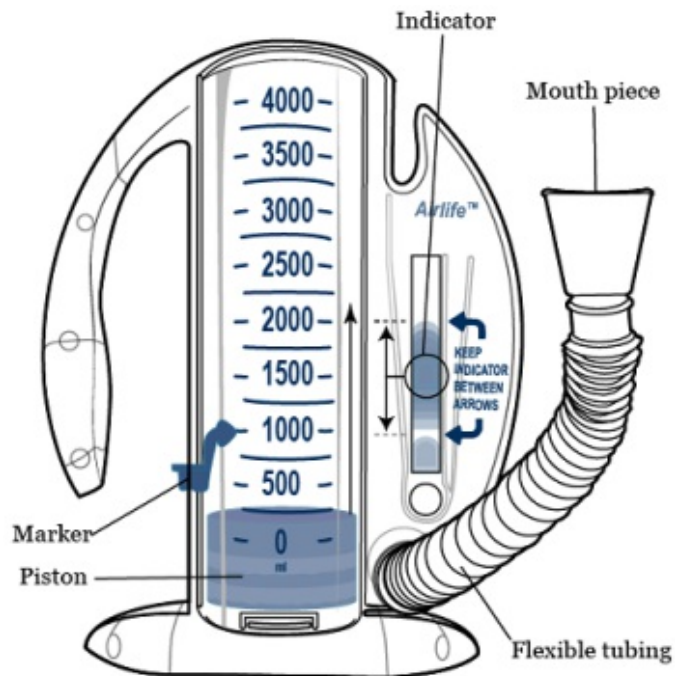


Figure 1. Parts of an incentive spirometer

It's important to use your incentive spirometer after your surgery. Using an incentive spirometer:

- Helps your lungs expand so you can take deep, full breaths.
- Exercises your lungs and makes them stronger as you heal from surgery.

If you have a respiratory infection, do not use your incentive spirometer around other people. A respiratory infection is an infection in your nose, throat, or lungs, such as pneumonia (noo-MOH-nyuh) or COVID-19. This kind of infection can spread from person to person through the air.

How to use your incentive spirometer

Here is a video that shows how to use your incentive spirometer:



Please visit www.mskcc.org/pe/incentive_spirometer_video to watch this video.

Setting up your incentive spirometer

Before you use your incentive spirometer for the first time, you will need to set it up. First, take the flexible (bendable) tubing out of the bag and stretch it out. Then, connect the tubing to the outlet on the right side of the base (see Figure 1). The mouthpiece is attached to the other end of the tubing.

Knowing what number to aim for on your incentive spirometer

Your healthcare provider will teach you how to use your incentive spirometer before you leave the hospital. They will help you set a goal and tell you what number to aim for when using your spirometer. If a goal was not set for you, talk with your healthcare provider. Ask them what number you should aim for.

You can also check the package your incentive spirometer came in. It may have a chart to help you figure out what number to aim for. To learn more, read "What number I should aim for?" in the "Common questions about your

incentive spirometer” section.

Using your incentive spirometer

When using your incentive spirometer, make sure to breathe through your mouth. If you breathe through your nose, your spirometer will not work right.

Follow these steps to use your incentive spirometer. Repeat these steps every hour you’re awake. Follow the instructions from your healthcare provider if they’re different from the ones here.

1. Sit upright in a chair or in bed. Hold your incentive spirometer at eye level.
2. Put the mouthpiece in your mouth and close your lips tightly around it. Make sure you do not block the mouthpiece with your tongue.
3. With the mouthpiece in your mouth, breathe out (exhale) slowly and fully.
 - Some people may have trouble exhaling with the mouthpiece in their mouth. If you do, take the mouthpiece out of your mouth, and then exhale slowly and fully. After you exhale, put the mouthpiece back in your mouth and go on to step 4.
4. Breathe in (inhale) slowly through your mouth, as deeply as you can. You will see the piston slowly rise inside the spirometer. The deeper you breathe in, the higher the piston will rise.
5. As the piston rises, the coaching indicator on the right side of the spirometer should also rise. It should float between the 2 arrows (see Figure 1).
 - The coaching indicator measures the speed of your breath. If it does not stay between the 2 arrows, you’re breathing in either too fast or too slow.
 - If the indicator rises above the higher arrow, you’re breathing in too fast. Try to breathe in slower.
 - If the indicator stays below the lower arrow, you’re breathing in too slow. Try to breathe in faster.

6. When you cannot breathe in any further, hold your breath for at least 3 to 5 seconds. Hold it for longer if you can. You will see the piston slowly fall to the bottom of the spirometer.
7. Once the piston reaches the bottom of the spirometer, breathe out slowly and fully through your mouth. If you want, you can take the mouthpiece out of your mouth first and then breathe out.
8. Rest for a few seconds. If you took the mouthpiece out of your mouth, put it back in when you're ready to start again.
9. Repeat steps 1 to 8 at least 10 times. Try to get the piston to the same level with each breath. After you have done the exercise 10 times, go on to step 10.
10. Use the marker on the left side of the spirometer to mark how high the piston rises (see Figure 1). **Look at the very top of the piston, not the bottom. The number you see at the top is the highest number the piston reached. Put the marker there.** This is how high you should try to get the piston the next time you use your spirometer.
 - Write down the highest number the piston reached. This can help you change your goals and track your progress over time.

Take 10 breaths with your incentive spirometer every hour you're awake.

Cover the mouthpiece of your incentive spirometer when you're not using it.

Tips for using your incentive spirometer

Follow these tips when using your incentive spirometer:

- If you had surgery on your chest or abdomen (belly), it may help to splint your incision (surgical cut). To do this, hold a pillow firmly against your incision. This will keep your muscles from moving as much while you're using your incentive spirometer. It will also help ease pain at your incision.
- If you need to clear your lungs, you can try to cough a few times. As

you're coughing, hold a pillow against your incision, as needed.

- If you feel dizzy or lightheaded, take the mouthpiece out of your mouth. Then, take a few normal breaths. Stop and rest for a while, if needed. When you feel better, you can go back to using your incentive spirometer.
- You may find it hard to use your incentive spirometer at first. If you cannot make the piston rise to the number your healthcare provider set for you, it's OK. Reaching your goal takes time and practice. It's important to keep using your spirometer as you heal from surgery. The more you practice, the stronger your lungs will get.

Common questions about your incentive spirometer

How often should I use my incentive spirometer?

How often you will need to use your incentive spirometer is not the same for everyone. It depends on the type of surgery you had and your recovery process.

Most people can take 10 breaths with their spirometer every hour they're awake.

Your healthcare provider will tell you how often to use your spirometer. Follow their instructions.

How long after my surgery will I need to use my incentive spirometer?

The length of time you will need to use your incentive spirometer is not the same for everyone. It depends on the type of surgery you had and your recovery process.

Your healthcare provider will tell you how long you need to use your spirometer. Follow their instructions.

How do I clean my incentive spirometer?

An incentive spirometer is a disposable device and only meant to be used for a short time. Because of this, you may not find cleaning instructions in the package your spirometer came in. If you have questions about cleaning your spirometer, talk with your healthcare provider.

What do the numbers on my incentive spirometer measure?

The large column of your incentive spirometer has numbers on it (see Figure 1). These numbers measure the volume of your breath in milliliters (mL) or cubic centimeters (cc). The volume of your breath is how much air you can breathe into your lungs (inhale).

For example, if the piston rises to 1500, it means you can inhale 1500 mL or cc of air. The higher the number, the more air you're able to inhale, and the better your lungs are working.

What number I should aim for?

The number you should aim for depends on your age, height, and sex. It also depends on the type of surgery you had and your recovery process. Your healthcare provider will look at these things when setting a goal for you. They will tell you what number to aim for.

Most people start with a goal of 500 mL or cc. Your healthcare provider may change your goal and have you aim for higher numbers as you heal from surgery.

The package your incentive spirometer came in may have a chart. You can use the chart to set your goal based on your age, height, and sex. If you cannot find this information, ask your healthcare provider what your goal should be.

What does the coaching indicator on my incentive spirometer measure?

The coaching indicator on your incentive spirometer measures the speed of your breath. As the speed of your breath changes, the indicator moves up and down.

Use the indicator to guide your breathing. If the indicator rises above the higher arrow, it means you're breathing in too fast. If the indicator stays below the lower arrow, it means you're breathing in too slow.

Aim to keep the indicator between the 2 arrows (see Figure 1). This means your breath is steady and controlled.

When to call your healthcare provider

Call your healthcare provider if you have any of these when using your incentive spirometer:

- Feel dizzy or lightheaded.
- Pain in your lungs or chest.
- Severe (very bad) pain when you take deep breaths.
- Trouble breathing.
- Coughing up blood.
- Fluid or blood coming from your incision site when you cough.
- Trouble using your spirometer for any reason.

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

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

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