



Memorial Sloan Kettering  
Cancer Center

PATIENT & CAREGIVER EDUCATION

# About Your Bladder Surgery With a Neobladder

This guide will help you get ready for your bladder surgery at MSK. It will also help you know what to expect as you recover.

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 care team will use it as you learn more about your recovery.

## Emergency information

At night (from 5 p.m. to 9 a.m.), on weekends, and on holidays, call 212-639-2000. Ask for the urology surgeon on call.

MSK's Urgent Care Center is located at:  
425 E. 67th St. (between 1st and York avenues)  
New York, NY 10065



Visit [www.msk.org/pe/bladder\\_surgery\\_neobladder](http://www.msk.org/pe/bladder_surgery_neobladder) to view this guide online.

**Your care team**

Doctor: \_\_\_\_\_

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

Phone number: \_\_\_\_\_

Fax number: \_\_\_\_\_

**Your caregiver**

Your caregiver will learn about your surgery with you. They'll also help you care for yourself while you're healing after surgery. Write their name below.

Caregiver: \_\_\_\_\_

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*General Exercise Program: Level 2*

*Herbal Remedies and Cancer Treatment*

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

*How To Use Your Incentive Spirometer*

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# About your bladder surgery

Your urinary system is made up of organs that make urine (pee) and get it out of your body (see Figure 1).

- Your kidneys clean the toxins (waste products) out of your blood and make urine.
- Your ureters (YER-eh-terz) are tubes that carry urine from your kidneys to your bladder.
- Your bladder stores urine until you feel the need to urinate (pee).
- Your urethra (yoo-REE-thruh) is a tube that carries the urine in your bladder out of your body when you urinate.
  - If you have a vagina, your urethra is very short. It's located above your vagina.
  - If you have a penis, your urethra is longer. It passes through your prostate gland and penis.

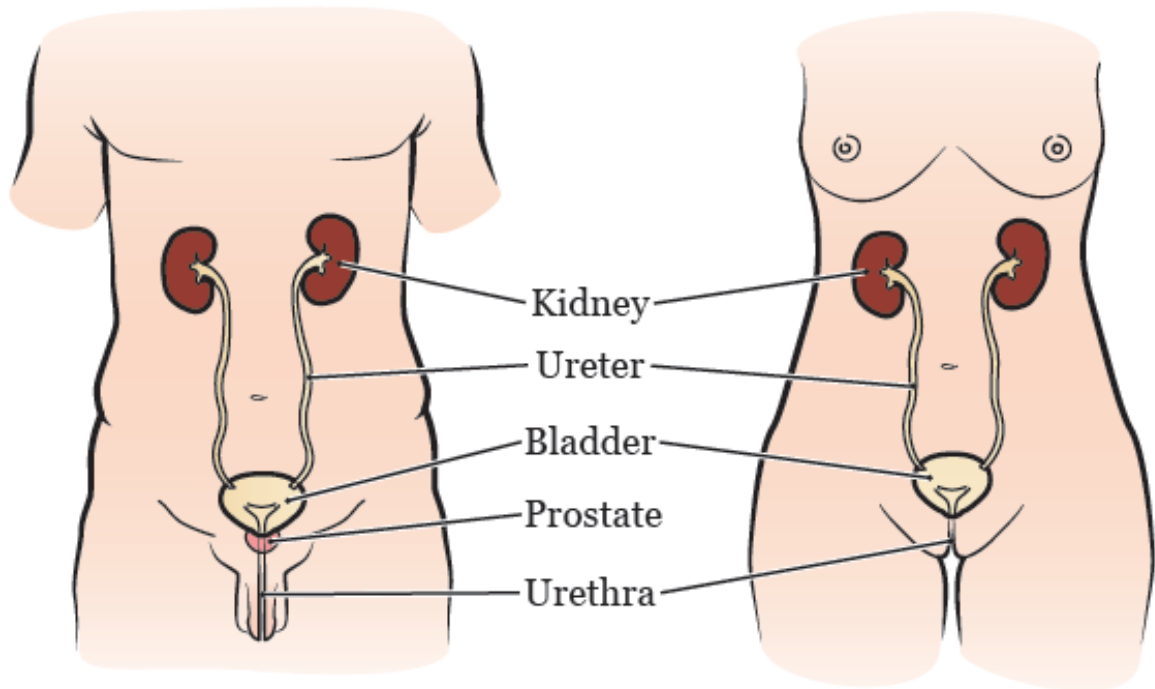


Figure 1. Your urinary system

## Taking out your bladder

Surgery to take out your entire bladder is called a radical cystectomy (sis-TEK-toh-mee).

During your surgery, your doctor will take out your bladder and some of the lymph nodes near your bladder. Then, they will rebuild your urinary system.

## About lymph nodes

Lymph nodes are small, bean-shaped glands that are found throughout your body. They're part of your lymphatic system, which is part of your body's immune system. During your surgery, your doctor will take out some lymph nodes. That's because they may have cancer cells.

You may have had surgery or radiation therapy to your pelvis in the past. If so, your doctor may take out fewer lymph nodes. This is done to avoid problems after your surgery.

## **Taking out other organs near your bladder**

Your doctor will take out your bladder and lymph nodes. They also may take out other organs near your bladder to make sure all the cancer is gone.

Your surgeon may take out 1 or more of these organs during your surgery:

- Prostate
- Seminal vesicles
- Part of the vasa deferentia
- Urethra
- Uterus
- Fallopian tubes
- Ovaries
- Part of the vagina

## **Creating your neobladder**

After your doctor takes out your bladder, they will create a new pouch to hold your urine. This is called a urinary diversion (dih-VER-zhun). The type of urinary diversion you will have is called a neobladder.

Before your surgery, you and your doctor will talk about which type of urinary diversion may be best for you. However, your doctor will make the final decision during your surgery. They will talk with you about how they make this decision and why a backup plan is needed.

Your doctor will use a small piece of your small intestine to make your neobladder. One end of your neobladder will be attached to your ureters. The other end will be attached to your urethra.

After your surgery, your urine will flow from your kidneys, through your ureters, and into your neobladder.

You will use the muscles in your abdomen (belly) to empty your neobladder. This is different from how you empty your natural bladder. You will learn how to do this after your surgery.

Sometimes, you may need to put a catheter through your urethra into your neobladder to completely empty it. A catheter is a thin, flexible tube. If you need to use one, a member of your care team will show you how.

This surgery often takes about 4 to 7 hours. It may take longer if you have other health problems or have had past surgeries.

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# Getting ready for your bladder surgery

This section will help you get ready for your surgery. Read it when your surgery is scheduled. Refer to it as your surgery gets closer. It has important information about what to do to get ready.



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

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# Getting ready for your surgery

You and your care team will work together to get ready for your surgery. Help us keep you safe by telling us if any of these things apply to you, even if you're not sure.

- I take an anticoagulant (blood thinner), such as:
  - Aspirin
  - Heparin
  - Warfarin (Jantoven®, Coumadin®)
  - Clopidogrel (Plavix®)
  - Enoxaparin (Lovenox®)
  - Dabigatran (Pradaxa®)
  - Apixaban (Eliquis®)
  - Rivaroxaban (Xarelto®)
- I take an SGLT2 inhibitor, such as:
  - Canagliflozin (Invokana®)
  - Dapagliflozin (Farxiga®)
  - Empagliflozin (Jardiance®)
  - Ertugliflozin (Steglatro®)
- I take any prescription medicines, including patches and creams. A prescription medicine is one you can only get with a prescription from a healthcare provider.
- I take any over-the-counter medicines, including patches and creams. An over-the-counter medicine is one you can buy without a prescription.
- I take any dietary supplements, such as herbs, vitamins, minerals, or natural or home remedies.

These are examples of medicines. There are others.

**Always be sure your healthcare providers know all the medicines and supplements you're taking.**

- I have a pacemaker, automatic implantable cardioverter-defibrillator (AICD), or other heart device.
- I have sleep apnea.
- I have had a problem with anesthesia (A-nes-THEE-zhuh) in the past. Anesthesia is medicine to make you sleep during a surgery or procedure.
- I'm allergic to certain medicines 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 or e-cigarette.
- I use recreational drugs, such as marijuana.

It's important to tell us all the medicines and supplements you're taking. They can affect your treatment.

## About drinking alcohol

It's important to talk with your healthcare providers about how much alcohol you drink. This will help us plan your care.

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

If you drink alcohol regularly and stop suddenly, it can cause seizures, delirium, and death. If we know you're at risk for these problems, we can prescribe medicine to help prevent them.

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

- Be honest with us about how much alcohol you drink.

- Try to stop drinking alcohol once your surgery is planned. Tell us right away if you:
  - Get a headache.
  - Feel nauseous (like you're going to throw up).
  - Feel more anxious (nervous or worried) than usual.
  - Cannot sleep.

These are early signs of alcohol withdrawal and can be treated.

- Tell us if you cannot stop drinking.
- Ask us questions about drinking and surgery. We will keep all your medical information private, as always.

## **About smoking**

If you smoke, you can have breathing problems when you have surgery. Stopping for even a few days before surgery can help.

We will refer you to our Tobacco Treatment Program if you smoke. You can also reach the program by calling 212-610-0507. To learn more, visit [www.msk.org/tobacco](http://www.msk.org/tobacco)

The program can help you quit smoking, which is important for people who have bladder cancer. Research studies show if you keep smoking, it can harm your health and how well your cancer treatment works. If you smoke, there's a higher chance the tumor will keep growing, or the cancer will spread. There's also a higher chance of recurrence (the cancer comes back).

## **About sleep apnea**

Sleep apnea is a common breathing problem. If you have sleep apnea, you stop breathing for short lengths of time while you're asleep. The most common type is obstructive sleep apnea (OSA). With OSA, your airway becomes fully blocked during sleep.

OSA can cause serious problems during and after surgery. Tell us if you have or think you might have sleep apnea. If you use a breathing device, such as a CPAP machine, bring it on the day of your surgery.

## Using MyMSK

MyMSK ([my.mskcc.org](http://my.mskcc.org)) is your MSK patient portal. You can use it to send and read messages from your care team, view your test results, see your appointment dates and times, and more. You can also invite your caregiver to make their own account so they can see information about your care.

If you do not have a MyMSK account, you can sign up at [my.mskcc.org](http://my.mskcc.org). You can get an enrollment ID by calling 646-227-2593 or your doctor's office.

Watch *How to Enroll in MyMSK: Memorial Sloan Kettering's Patient Portal* at [www.msk.org/pe/enroll\\_mymsk](http://www.msk.org/pe/enroll_mymsk) to learn more. You can also contact the MyMSK Help Desk by emailing [mymsk@mskcc.org](mailto:mymsk@mskcc.org) or calling 800-248-0593.

## About Enhanced Recovery After Surgery (ERAS)

ERAS is a program to help you get better faster after your surgery. It's important to do certain things before and after your surgery as part of the ERAS program.

Before your surgery, make sure you're ready by:

- **Reading this guide.** It will help you know what to expect before, during, and after your surgery. If you have questions, write them down. You can ask your healthcare provider at your next visit or call their office.
- **Exercising and following a healthy diet.** This will help get your body ready for your surgery.

After your surgery, help yourself recover more quickly by:

- **Reading your recovery pathway.** This is an educational resource your healthcare provider will give you. It has goals for your recovery. It will help you know what to do and expect each day.
- **Starting to move around as soon as you can.** The sooner you get out of bed and walk, the quicker you can get back to your usual activities.

## Within 30 days of your bladder surgery

### Presurgical testing (PST)

You'll have a PST appointment before your surgery. You'll get a reminder from your surgeon's office with the appointment date, time, and location. Visit [www.msk.org/parking](http://www.msk.org/parking) for parking information and directions to all MSK locations.

You can eat and take your usual medicines the day of your appointment.

It's helpful to bring these things to your appointment:

- A list of all the medicines you're taking, including prescription and over-the-counter medicines, patches, and creams.
- Results of any medical tests done outside of MSK in the past year, if you have them. Examples include results from a cardiac stress test, echocardiogram, or carotid doppler study.
- The names and telephone numbers of your healthcare providers.

You'll meet with an advance practice provider (APP) during your PST appointment. They work closely with MSK's anesthesiology (A-nes-THEE-zee-AH-loh-jee) staff. These are doctors with special training in using anesthesia during a surgery or procedure.

Your APP will review your medical and surgical history with you. You may have tests to plan your care, such as:

- An electrocardiogram (EKG) to check your heart rhythm.
- A chest X-ray.
- Blood tests.

Your APP may recommend you see other healthcare providers. They'll also talk with you about which medicines to take the morning of your surgery.

## Identify your caregiver

Your caregiver has 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. They'll also help you care for yourself at home.



### For caregivers

Caring for a person going through cancer treatment comes with many responsibilities. We offer resources and support to help you manage them.

Visit [www.msk.org/caregivers](http://www.msk.org/caregivers) or read *A Guide for Caregivers* to learn more. You can ask for a printed copy or find it at [www.msk.org/pe/guide\\_caregivers](http://www.msk.org/pe/guide_caregivers)

## Fill out a Health Care Proxy form

If you have not already filled out a Health Care Proxy form, we recommend you do now. If you already filled one out or have any other advance directives, bring them to your next appointment.

A health care proxy is a legal document. It says who will speak for you if you can't communicate for yourself. This person is called your health care agent.

- To learn about health care proxies and other advance directives, read *Advance Care Planning for People With Cancer and Their Loved Ones*. You can find it at [www.msk.org/pe/advance\\_care\\_planning](http://www.msk.org/pe/advance_care_planning) or ask for a printed copy.
- To learn about being a health care agent, read *How to Be a Health Care Agent*. You can find it at [www.msk.org/pe/health\\_care\\_agent](http://www.msk.org/pe/health_care_agent) or ask for a printed copy.

Talk with a member of your care team if you have questions about filling out a Health Care Proxy form.

## **Meet with a wound, ostomy, and continence (WOC) nurse, if needed**

A WOC nurse has special training in caring for wounds, stomas, and other skin issues. A stoma is a small opening in the skin of your abdomen. A WOC nurse can also help you if you're having problems with incontinence (leaking urine).

Before your surgery, your WOC nurse can talk with you about what to expect when you have a neobladder.

They may also mark a site on your abdomen where a stoma may be placed. The site will be in the best possible place, away from scars, creases, and folds. If possible, it will be in an area that will make it easy for you to care for it.

Your doctor may not think you will need a stoma. But they may have your WOC nurse mark a site anyway. This is done in case the surgical plan changes based on findings during your surgery.



## **Do breathing and coughing exercises**

Practice taking deep breaths and coughing before your surgery. We may give you an incentive spirometer to help expand your lungs. To learn more, read *How To Use Your Incentive Spirometer*. You can find it in the “Educational resources” section of this guide.

## **Consider our sexual health programs**

Bladder surgery will affect your sexual health. If you have concerns about how it will affect you, talk with a member of your care team. They can refer you to one of our sexual health clinics.

## **Information for people born with a penis and a prostate**

Bladder surgery can cause changes in erectile function. This is how well you can get and keep an erection (getting hard). Most people have erectile dysfunction (ED) after surgery. ED is when you have trouble getting or keeping an erection.

Your doctor will talk with you about what to expect about having erections again after surgery. There are many types of treatments for ED, including pills, injections (shots), or a prosthesis (implant). Your doctor can talk about these options with you.

Your prostate will be taken out, and you will not be able to get someone pregnant after your surgery. If you want to have biological children in the future, you may want to bank your sperm before surgery. Ask a member of your care team for information about sperm banking if you want to bank your sperm. To learn more, read *Sperm Banking*. You can find it at [www.msk.org/pe/sperm\\_banking](http://www.msk.org/pe/sperm_banking) or ask for a printed copy.

To see a specialist in our Male Sexual and Reproductive Medicine Program, ask a member of your care team for a referral. You can also call 646-888-6024 to learn more.

## **Information for people born with a vagina and a uterus**

If your reproductive organs are taken out, you will not be able to have biological children after your surgery. If you want biological children in the future, think about family planning options (such as egg freezing) before your surgery. Your doctor can talk about these options with you.

To learn more, read *Fertility Preservation Before Cancer Treatment: Options for People Born with Ovaries and a Uterus*. You can ask for a printed copy or find it at [www.msk.org/pe/fertility\\_starting\\_treatment](http://www.msk.org/pe/fertility_starting_treatment)

You may also have changes in sexual function after your surgery. These may include a shorter vagina and menopause. Menopause is when you no longer have a menstrual period. Your doctor will talk with you about what to expect. They can also talk about your treatment options with you in more detail.

To see a specialist in our Female Sexual Medicine and Women's Health Program, ask a member of your MSK care team for a referral. You can also call 646-888-5076 to learn more.

## **Do physical activity**

Doing physical activity will help your body get into its best condition for your surgery. It will also make your recovery faster and easier.

If you can, try to do physical activity every day. Any activity that makes your heart beat faster is a good choice. For example, try to do at least 1 mile of walking, swimming, riding a bike, or climbing stairs every day. If it's cold outside, use stairs in your home or go to a mall or shopping center.

To learn more, read *General Exercise Program: Level 2*. You can find it in the “Educational resources” section of this guide.

Talk with your doctor about what types and amounts of physical activity are right for you. You may need to avoid or change some activities because of your cancer treatment plan.

## **Follow a healthy diet**

Good nutrition is very important for people with cancer. There may be some changes you can make now before you have surgery that will help you.

Start by following a healthy diet. This can make you stronger. It can help you stay at a healthy weight. It’s important to make sure you get the calories and protein you need. This keeps your body strong during your treatment.

People need different amounts of calories and protein. There are things everyone can do to get the nutrition you need before your surgery.

- Try to include foods and drinks rich in protein at each meal. Examples are chicken, fish, meats, eggs, milk, cheese, beans, or tofu.
- Maintain your weight or gain weight by eating all your meals during the day.
- Add high-calorie and protein snacks to all your meals. Examples are nuts, nut butters, hard-boiled eggs, yogurt, smoothies, milkshakes, avocados, hummus, and cheese.

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

## **Buy liquids**

You'll need to follow a full liquid diet before your surgery. It's helpful to buy liquids ahead of time. Read the "Follow a full liquid diet" section for a list of liquids you can drink.

## **Do pelvic floor muscle (Kegel) exercises**

Kegel (KAY-gull) exercises will help strengthen your pelvic floor muscles that were weakened from your surgery. These are the muscles you use to stop the stream of urine while you're urinating (peeing). You will use your pelvic floor muscles when you empty your neobladder.

Practice doing Kegel exercises before your surgery so you'll know how it should feel. Your nurse will give you information about how to do Kegel exercises.

To learn more, read:

- *Pelvic Floor Muscle (Kegel) Exercises for Males*. You can find it at [www.msk.org/pe/kegels\\_males](http://www.msk.org/pe/kegels_males) or ask for a printed copy.
- *Pelvic Floor Muscle (Kegel) Exercises for Females*. You can find it at [www.msk.org/pe/kegels\\_females](http://www.msk.org/pe/kegels_females) or ask for a printed copy.



Do not do Kegel exercises while you have a urinary (Foley®) catheter in place.

## 7 days before your bladder surgery

### Follow your healthcare provider's instructions for taking aspirin

Aspirin can cause bleeding. 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 they tell you to.**

To learn more, 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

Vitamin E, multivitamins, herbal remedies, and other dietary supplements can cause bleeding. Stop taking them 7 days before your surgery. If your healthcare provider gives you other instructions, follow those instead.

To learn more, read *Herbal Remedies and Cancer Treatment*. You can find it in the “Educational resources” section of this guide.

## 2 days before your bladder surgery

### Stop taking nonsteroidal anti-inflammatory drugs (NSAIDs)

NSAIDs, such as ibuprofen (Advil® and Motrin®) and naproxen (Aleve®), can cause bleeding. Stop taking them 2 days before your surgery. If your healthcare provider gives you other instructions, follow those instead.

To learn more, 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 bladder surgery

### Follow a full liquid diet

You’ll need to follow a full liquid diet the day before your surgery. Your healthcare provider will tell you if you need to start your liquid diet earlier or do any other bowel preparation.

A full liquid diet is a diet where you do not eat any solid foods. You can eat foods that you do not need to chew or bite, such as yogurt. Some examples of things you can eat and drink are listed in the “Full liquid diet” table below.

While you’re following a full liquid diet:

- Do not eat any solid foods.
- Try to drink at least 1 (8-ounce) cup of liquid every hour you’re awake.
- Drink different types of liquids. Do not just drink water, coffee, and tea. You can drink liquids of any color.

- Do not drink sugar-free liquids unless you have diabetes and a member of your care team tells you to.

## How to follow a full liquid diet if you have diabetes

Ask the healthcare provider who manages your diabetes:

- What to do while you're following a full liquid diet.
- If you need to change your dose of insulin or other diabetes medicines, if you take them.
- If you should drink sugar-free liquids.

Check your blood sugar level often while you're following a full liquid diet. If you have questions, talk with your healthcare provider.

## Full liquid diet table

Follow the dietary guidelines in this table. If your healthcare provider told you to follow different guidelines than what's listed here, follow their instructions.

	OK to have	Do not have
<b>Soups</b>	<ul style="list-style-type: none"> <li>• Broth, bouillon, and consommé.</li> <li>• Soups that are puréed in a blender until smooth, such as cream of potato, carrot, and broccoli.</li> </ul>	<ul style="list-style-type: none"> <li>• Soups that have pieces of food, such as vegetables, pastina, and rice.</li> </ul>

	OK to have	Do not have
<b>Dairy</b>	<ul style="list-style-type: none"> <li>• Pudding.</li> <li>• Smooth ice cream.</li> <li>• Smooth yogurt, such as vanilla, lemon, and coffee flavors.</li> <li>• Milk and milkshakes.</li> <li>• Nut milks, plant milks, non-dairy creamers, and other dairy alternatives (almond milk, soy milk, rice milk, and Lactaid® milk).</li> </ul>	<ul style="list-style-type: none"> <li>• Dairy that has added fruit, nuts, granola, or pieces of food.</li> </ul>
<b>Grains</b>	<ul style="list-style-type: none"> <li>• Hot cereals made with enough liquid so they're thin and runny with no lumps. Examples are farina, strained oatmeal, grits, and Wheatena®.</li> </ul>	<ul style="list-style-type: none"> <li>• Grains that have added fruit, nuts, granola, or pieces of food.</li> </ul>
<b>Nutritional supplements</b>	<ul style="list-style-type: none"> <li>• Liquid nutritional supplements, such as Ensure®, Boost®, Carnation Breakfast Essentials®, and Diabetishield® drinks.</li> <li>• Pudding nutritional supplements, such as Boost Nutritional Pudding and Ensure Original Pudding.</li> </ul>	<ul style="list-style-type: none"> <li>• Supplements that have added fruit, nuts, granola, or pieces of food.</li> </ul>



	OK to have	Do not have
<b>Drinks</b>	<ul style="list-style-type: none"> <li>• Fruit juices, such as lemonade, apple, cranberry, and grape juices.</li> <li>• Drinks with electrolytes, such as Pedialyte®, Gatorade®, and Powerade®.</li> <li>• Black coffee.</li> <li>• Plain tea.</li> <li>• Water, including flavored water.</li> </ul>	<ul style="list-style-type: none"> <li>• Juices with pulp.</li> <li>• Nectars.</li> <li>• Bubble teas.</li> <li>• Drinks with alcohol.</li> <li>• Carbonated (fizzy) drinks, such as carbonated water and soda (such as ginger ale, 7UP®, Sprite®, and seltzer).</li> </ul>
<b>Spices and condiments</b>	<ul style="list-style-type: none"> <li>• Mild mustard, ketchup, mayonnaise, sugar, salt, or a dash of pepper blended into the food and drinks listed above.</li> </ul>	<ul style="list-style-type: none"> <li>• All other spices and condiments.</li> </ul>

## Note the time of your surgery

A staff member will call you after 2 p.m. the day before your surgery. If your surgery is scheduled for a Monday, they'll call you the Friday before. If you do not get a call by 7 p.m., call 212-639-5014.

The staff member will tell you what time to get to the hospital for your surgery. They'll also remind you where to go. This will be:

The Presurgical Center (PSC) at Memorial Hospital  
1275 York Ave. (between East 67th and East 68th streets)  
New York, NY 10065  
Take the B elevator to the 6th floor.

Visit [www.msk.org/parking](http://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**

Shower with a 4% CHG solution antiseptic skin cleanser before you go to bed the night before your surgery.

1. Wash your hair with your usual shampoo and conditioner. Rinse your head well.
2. Wash your face and genital (groin) area with your usual soap. 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. Do not 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.

Do not 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 day of your bladder 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.

Do not 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 harm your eyes.
- Do not wear any metal objects. Take off all jewelry, including body piercings. The tools used during your surgery can cause burns if they touch metal.

- Take off nail polish and wraps.
- Leave valuable items at home.
- If you're menstruating (have your monthly period), use a sanitary pad, not a tampon. We'll give you underwear that's disposable (goes in garbage after using) and a pad if you need them.

## What to bring

- A pair of loose-fitting, comfortable pants, such as sweatpants. You may have some swelling in your abdomen. Pants with an elastic waistband or a drawstring can fit over this swelling.
- 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 machine), if you have one.
- Your incentive spirometer, if you have one.
- Your Health Care Proxy form and other advance directives, if you filled them out.
- Your cell phone and charger.
- Only the money you may want for small purchases, such as a newspaper.
- A case for your personal items, if you have any. Examples are eyeglasses, hearing aids, dentures, prosthetic devices, wigs, and religious articles.
- This guide. You'll use it to 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.

We'll give you a hospital gown, robe, and nonskid socks to wear when it's time to change for surgery.



### **For caregivers, family, and friends**

Read *Information for Family and Friends for the Day of Surgery* to help you know what to expect on the day of your loved one's surgery. You can ask for a printed copy or find it at [www.msk.org/pe/info\\_family\\_friends](http://www.msk.org/pe/info_family_friends)

### **Meet with a nurse**

You'll meet with a nurse before surgery. Tell them the dose of any medicines you took after midnight (12 a.m.) and the time you took them. Make sure to include prescription and over-the-counter medicines, patches, and creams.

Your nurse may place an intravenous (IV) line in one of your veins, usually in your arm or hand. If your nurse does not place the IV, your anesthesiologist (A-nes-THÉE-zee-AH-loh-jist) will do it in the operating room.

### **Marking your surgery site**

We will ask you for your name and birth date. We may also ask:

- The name of your doctor.
- What surgery you're having.
- Which side of your body is being operated on.

Your doctor or another member of your surgery team may mark your surgery site. They will use a marker to initial the site on your body that they will operate on. This is for your safety. We do this to make sure all members of the surgery staff 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. This includes nausea (feeling like you're going to throw up) 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 questions you have about anesthesia.

Your doctor or anesthesiologist may also talk with you about ways to give you pain medicine after your surgery.

- If you're getting epidural pain medicine, it will be put into your epidural space. Your epidural space is the space in your spine just outside your spinal cord. The pain medicine is given through a catheter.
- If you're getting IV pain medicine, it will be put into your bloodstream through your IV line.
- If you're having a robot-assisted cystectomy, you may get a nerve block. This is an injection (shot) of a steroid, local anesthetic, or other medicine right into the nerves causing the pain. This stops your nerves from sending pain messages to your brain. People who have a robot-assisted cystectomy often get a nerve block to help with pain.

## Get ready for surgery

When it's time for your surgery, you'll take off your eyeglasses, hearing aids, dentures, prosthetic devices, wig, and religious articles.

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. They'll put 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, your care team will place a breathing tube through your mouth into your airway. It will help you breathe. They'll also place a urinary (Foley) catheter in your neobladder. It will drain your urine during your surgery.

Your surgeon will close your incision (surgical cut) with staples or stitches once they finish your surgery. They may also place Steri-Strips™ (thin pieces of surgical tape) or Dermabond® (surgical glue) over your incision. They'll cover your incision with a bandage.

Some surgeons at MSK have special training in using a robotic device to assist (help) with this surgery. If you're having a robot-assisted cystectomy, your surgeon will make multiple incisions on your abdomen. The incisions will be very small (about the size of a keyhole). They will be covered with surgical glue (Dermabond) that will fall off on its own.

Your care team often will take out your breathing tube while you're still in the operating room.



# Recovering after your bladder surgery

This section will help you know what to expect after your surgery. You'll learn how to safely recover from your surgery both in the hospital and at home.



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

Notes \_\_\_\_\_

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# In the Post-Anesthesia Care Unit (PACU)

You'll be in the PACU when you wake up after your surgery. A nurse will be keeping track of your temperature, pulse, blood pressure, and oxygen levels. You may get oxygen through a tube resting below your nose or a mask over your nose and mouth. You'll also have compression boots on your lower legs.

## Pain medicine

You'll get pain medicine while you're in the PACU.

- If you're getting epidural pain medicine, it will be put into your epidural space through your epidural catheter.
- If you're getting IV pain medicine, it will be put into your bloodstream through your IV line.
- If you're getting a nerve block, it will be put right into the nerves causing the pain.

You'll be able to control your pain medicine using a button called a patient-controlled analgesia (PCA) device. Read *Patient-Controlled Analgesia (PCA)* to learn more. You can find it at [www.msk.org/pe/pca](http://www.msk.org/pe/pca) or ask for a printed copy.

## Tubes and drains

You will have a few types of drainage tubes in your body. Your healthcare provider will talk with you about what to expect. They will also check off the boxes next to the tubes you may have.

- Jackson-Pratt (JP) drain:** This is a small, egg-shaped container. It's connected to a tube in the lower part of your abdomen. It drains liquid from your pelvis.

- **Stents:** These are 2 small tubes. They may be in a small opening in your abdomen. Or, they may be attached to a Foley catheter inside your body. They drain urine from your kidneys.
- **Suprapubic (SP) tube:** This is a tube in the lower part of your abdomen. It drains urine from your neobladder.
- **Foley catheter:** This is a tube in your urethra. It drains urine from your neobladder.

## Moving to your hospital room

You will probably stay in the PACU overnight. How long you stay depends on the type of surgery you had. A staff member will bring you to your hospital room after your stay in the PACU.

## 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 3 to 4 days.

In your hospital room, you'll meet one of the nurses who will care for you during your stay. A nurse will help you out of bed and into your chair soon after you get there.

Your care team will teach you how to care for yourself while you're healing from your surgery. You can help yourself recover more quickly by:

- **Reading your recovery pathway.** We will give you a pathway with goals for your recovery if you do not already have one. It will help you know what to do and expect on each day during your recovery.
- **Starting to move around as soon as you can.** The sooner you get out of bed and walk, the quicker you can get back to your usual activities.

## 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.

To learn more about how walking can help you recover, read *Frequently Asked Questions About Walking After Your Surgery*. You can find it at [www.msk.org/pe/walking\\_after\\_surgery](http://www.msk.org/pe/walking_after_surgery) or ask for a printed copy.

To learn what you can do to stay safe and keep from falling while you're in the hospital, read *Call! Don't Fall!* You can ask for a printed copy or find it at [www.msk.org/pe/call\\_dont\\_fall](http://www.msk.org/pe/call_dont_fall)

Try to follow the moving and walking goals below. These goals are also in your recovery pathway.

Day	Goals
The day of surgery	<ul style="list-style-type: none"><li>• Dangle your legs over the edge of your bed.</li></ul>
1 day after surgery	<ul style="list-style-type: none"><li>• Sit in your chair for 2 to 3 hours.</li><li>• Walk to the bathroom and brush your teeth.</li><li>• Walk 3 or more laps around the nursing unit.</li></ul>
2 days after surgery	<ul style="list-style-type: none"><li>• Sit in your chair for 3 or more hours.</li><li>• Sit in your chair during your meals.</li><li>• Walk to the bathroom and brush your teeth.</li><li>• Walk 7 or more laps around the nursing unit.</li></ul>
3 days after surgery	<ul style="list-style-type: none"><li>• Sit in your chair for 4 or more hours.</li><li>• Sit in your chair during your meals.</li><li>• Walk to the bathroom and do all self-care activities, such as brushing your teeth and washing your face.</li><li>• Walk 10 or more laps around the nursing unit.</li></ul>

Day	Goals
4 days after surgery	<ul style="list-style-type: none"> <li>• Sit in your chair for 5 or more hours.</li> <li>• Sit in your chair during your meals.</li> <li>• Walk 14 or more laps around the nursing unit (1 mile).</li> </ul>

## Managing your pain

You'll have some pain after your surgery. Your doctor will talk with you about ways to give you pain medicine after your surgery.

At first, you'll get your pain medicine through your epidural catheter or IV line. You'll be able to control your pain medicine using a PCA device.

If you had a robot-assisted cystectomy, you'll get your pain medicine through a nerve block. Once you can eat, you'll get oral pain medicine (pain medicine you swallow).

We will ask you about your pain often and give you medicine as needed. Tell one of your healthcare providers if your pain does not get better. It's important to control your pain so you can use your incentive spirometer and move around. Controlling your pain can help you recover faster.

If you had a robot-assisted cystectomy, you may feel pain in some parts of your body. Most often, it's in your shoulders. This kind of pain is common. It's caused by the gas used during your surgery. This gas can put pressure on a few parts of your body. The pain will go away in a few days. Walking around after surgery will help your body absorb the gas faster and reduce your pain. Using a hot pack will also help with the pain.

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

## 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. Read *How To Use Your Incentive Spirometer* to learn more. You can find it in the "Educational resources" section of this guide.
- Do coughing and deep breathing exercises. A member of your care team will teach you how.

## Eating and drinking

You may be able to start drinking liquids the day after your procedure. You will slowly start eating solid foods again over the next few days. This depends on how your bowels are working.

While you're recovering, your appetite (desire to eat) may be smaller than it was before your surgery. Eat 6 small meals throughout the day instead of 3 large meals. Eating this way will help your digestion and give you energy throughout the day.

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

## Swelling and discharge

Right after surgery, you may have some swelling in your genitals and groin. This is the area between your belly and thigh. You may also have some discharge (fluid) from your penis or vagina. This is normal. The swelling and discharge should go away over a few weeks.

## **Learning to care for your neobladder**

While you're in the hospital, your nurse will teach you how to care for your neobladder. They will also teach you how to care for any tubes or drains you will have at home. Your nurse may give you written information. You can put it in this folder to review when you're at home.

It's very helpful if your caregiver also learns how to care for your neobladder. This will make it easier for them to help you care for yourself at home.

Have your caregiver schedule time to meet with your nurse. Your nurse can teach them how to care for your neobladder. They can answer their questions or concerns.

## **Planning for discharge**

You will have a case manager who will help you with your discharge planning (plan for leaving the hospital). They will work with you to arrange for a home care nurse. The home care nurse will visit you after you're discharged from the hospital.

Before you leave the hospital, your nurse will give you enough supplies to care for yourself at home for about 3 weeks. They will also give you a list of companies you can contact to order more supplies. The nurse who works with your doctor will also help you order more supplies after you're discharged.

## **Leaving the hospital**

Before you leave, look at your incision with one of your healthcare providers. Knowing what it looks like will help you notice any changes later.

On the day of your discharge, plan to leave the hospital around 11 a.m. Your healthcare provider will write your discharge order and prescriptions before

you leave. 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 leave, you may be able to wait in the Patient Transition Lounge. A member of your care team will give you more information.

## At home

Read *What You Can Do to Avoid Falling* to learn what you can do to keep from falling at home and during your appointments at MSK. You can find it at [www.msk.org/pe/avoid\\_falling](http://www.msk.org/pe/avoid_falling) or ask for a printed copy.

A home care nurse will visit you when you're home from the hospital. They will keep track of how you're recovering. They will also help you practice caring for your neobladder.

The nurse that works with your doctor will call you 1 to 4 days after you're discharged. They'll ask how you're doing. They will also tell you when to schedule your first appointment after surgery.

Once your Foley catheter is taken out, you will need to urinate (pee) on a schedule. This is called a voiding schedule or a urination schedule. Following a urination schedule will help you keep from overfilling your neobladder.

To learn more, read *Urination Schedule for Your Neobladder*. You can find it at [www.msk.org/pe/urination-schedule-neobladder](http://www.msk.org/pe/urination-schedule-neobladder) or ask for a printed copy.

## MedicAlert® jewelry

You should always wear a MedicAlert bracelet or necklace that says you had a cystectomy with orthotopic neobladder. This will help emergency services workers care for you if you're ever badly ill or hurt and need medical help.



You can buy a MedicAlert bracelet or necklace at most drug stores. You also can ask a member of your care team for an application. For more information, visit the MedicAlert website at [www.medicalert.org](http://www.medicalert.org)

## **Caring for your tubes and drains**

You will leave the hospital with 1 or more drainage tubes. The tubes will drain urine from your neobladder and help the area heal.

If you have a Foley catheter, read *About Your Urinary (Foley) Catheter: How To Clean and Care for It*. You can find it in the “Educational resources” section of this guide.

If you have a Jackson-Pratt (JP) drain, read *Caring for Your Jackson-Pratt Drain*. You can find it at [www.msk.org/pe/caring\\_jackson\\_pratt](http://www.msk.org/pe/caring_jackson_pratt) or ask for a printed copy.

Your neobladder is made from a piece of your intestine, and your intestine makes mucus. This mucus can build up and clog the tubes in your neobladder. To prevent this, you must irrigate (flush out) your tubes before and after you leave the hospital.

Your nurse will teach you how to do this. You will need to irrigate your tubes at home until they're taken out.

After your tubes are taken out, you will see mucus in your urine. This is normal. With time, your neobladder will make less mucus.

## **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 medicine. Some people have soreness, tightness, or muscle aches around their incision for 6 months or longer. This doesn't mean something is wrong.

Follow these guidelines to help manage your pain at home.

- Take your medicines as directed and as needed.
- Call your healthcare provider if the medicine prescribed for you does not help your pain.
- Do not drive or drink alcohol while you're taking prescription pain medicine. Some prescription pain medicines can make you drowsy (very sleepy). Alcohol can make the drowsiness worse.
- You'll have less pain and need less pain medicine as your incision heals. An over-the-counter pain reliever will help with aches and discomfort. Acetaminophen (Tylenol®) and ibuprofen (Advil or Motrin) are examples of over-the-counter pain relievers.
  - Follow your healthcare provider's instructions for stopping your prescription pain medicine.
  - Do not take too much of any medicine. Follow the instructions on the label or from your healthcare provider.
  - Read the labels on all the medicines you're taking. This is very important if you're taking acetaminophen. Acetaminophen is an ingredient in many over-the-counter and prescription medicines. Taking too much can harm your liver. Do not take more than one medicine that has acetaminophen without talking with a member of your care team.
- Pain medicine should help you get back to your usual activities. Take enough to do your activities and exercises comfortably. You may have a little more pain as you start to be more active.
- Keep track of when you take your pain medicine. 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 medicines, such as opioids, may cause constipation. Constipation is when you poop less often than usual, have a harder time pooping, or both.

## Preventing and managing constipation

Talk with your healthcare provider about how to prevent and manage constipation. You can also follow these guidelines.

- Go to the bathroom at the same time every day. Your body will get used to going at that time. But if you feel like you need to go, don't put it off.
- Try to use the bathroom 5 to 15 minutes after meals. After breakfast is a good time to go. That's when the reflexes in your colon are strongest.
- Exercise, if you can. Walking is a great type of exercise that can help prevent and manage constipation.
- Drink 8 to 10 (8-ounce) cups (2 liters) of liquids daily, if you can. Choose water, juices (such as prune juice), soups, and milkshakes. Limit 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 recently had bowel surgery, ask your healthcare provider before changing your diet.
- Both over-the-counter and prescription medicines can treat constipation. Ask your healthcare provider before taking any medicine for constipation. This is very important 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 medicines for constipation are:

- Docusate sodium (Colace®). This is a stool softener (medicine that makes your bowel movements softer) that causes few side effects. You can use it to help prevent constipation. Do not take it with mineral oil.
- Polyethylene glycol (MiraLAX®). This is a laxative (medicine 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 medicines cause diarrhea (loose, watery bowel movements), stop taking them. You can start again if you need to.

To learn more, read *Constipation*. You can ask for a printed copy or find it at [www.msk.org/pe/constipation](http://www.msk.org/pe/constipation)

Call your healthcare provider if you're not passing gas or did not have a bowel movement in 3 days.

## **Diarrhea and other changes in bowel function**

When part of your colon is taken out, the part that's left adapts to the change. Your colon will start to adapt soon after your surgery. During this time, you may have gas or cramps. You can have changes in your bowel habits, such as diarrhea or having bowel movements often. These changes may take weeks to months to go away.

If you're having problems with changes in your bowel function, talk with your healthcare provider. You can also try these tips.

## **Tip for managing gas**

If you have gas or feel bloated, avoid foods that can cause gas. Examples are beans, broccoli, onions, cabbage, and cauliflower.

## **Tips for managing diarrhea**

If you have diarrhea, it's important to drink at least 8 to 10 (8-ounce) cups of liquids every day. Drink water and drinks with salt, such as broth and Gatorade. This will help you keep from becoming dehydrated and feeling weak.

Following the BRATT diet can also help control diarrhea. The BRATT diet is made up mostly of:

- Bananas (B)
- Rice (R)
- Applesauce (A)
- Toast (T)
- Tea (decaffeinated)

Call your doctor's office if you're having diarrhea more than 4 to 5 times a day. Call them if it smells worse than normal.

## **Tips for managing soreness**

If you have soreness around your anus (the opening where poop leaves your body):

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

To learn more, read *Diarrhea*. You can find it at [www.msk.org/pe/diarrhea](http://www.msk.org/pe/diarrhea) or ask for a printed copy.

## Caring for your incision

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

It’s common 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 or getting more red.
- The skin around your incision is warmer than usual.
- The area around your incision is starting to swell or getting more swollen.
- 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.

If you have Steri-Strips or Dermabond on your incision, they’ll loosen and fall or peel off on their own. If they haven’t fallen off after 10 days, you can take them off.

## Showering



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

Take your bandage(s) off before you shower. Use soap during your shower, but do not put it directly on your incision. Do not rub the area around your incision.

After you shower, pat the area dry with a clean towel. If your clothing may rub your incision, cover it with a small bandage. Otherwise, leave it uncovered.

Do not 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 include foods that are rich in protein at every meal. Good sources of protein include chicken, fish, meats, eggs, cheese, beans, or tofu. You should also try to eat fruits, vegetables, and whole grains.

To learn more, read *Eating Well During Your Cancer Treatment*. You can find it at [www.msk.org/pe/eating\\_cancer\\_treatment](http://www.msk.org/pe/eating_cancer_treatment) or ask for a printed copy.

**It's also important to drink plenty of liquids.** Try to drink 8 to 10 (8-ounce) cups of liquids every day. Choose liquids without alcohol. Limit liquids with caffeine.

You should drink enough so that the urine in your pouch is very light yellow or clear. If it becomes dark yellow or orange, you need to drink more.

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

## Physical activity and exercise

Your incision may look like it's healed on the outside when you leave the hospital. It will not be healed on the inside.

- Do not lift anything heavier than 10 pounds (4.5 kilograms) for the first 6 to 8 weeks after your surgery.
- Do not do any high-energy activities (such as jogging and tennis) for the first 3 months after your surgery.
- Do not play any contact sports (such as football) for the first 3 months after your surgery.

Doing physical activity, such as walking and stair climbing, will help you gain strength and feel better. Try to get 20 to 30 minutes of physical activity at least 2 to 3 times a day. For example, you can walk outside or indoors at your local mall or shopping center.

Make sure to talk with your healthcare provider before starting any physical activity. They will tell you when it's safe for you to start doing physical activity again.

To learn more, read *General Exercise Program: Level 2*. You can find it in the "Educational resources" section of this guide.

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



## **Driving**

Ask your healthcare provider when you can drive. Most people can start driving again 6 weeks after surgery. Do not drive while you're taking pain medicine 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. They'll tell you when it may be safe for you to start working again based on what you do. If you move around a lot or lift heavy objects, you may need to stay out a little longer. If you sit at a desk, you may be able to go back sooner.

## **Traveling**

You will be able to travel. Here are some suggestions for when you travel:

- Bring extra supplies, just in case it's hard to get them where you're going.
- If you're taking a plane, train, or bus, carry your supplies with you. Do not put them in your checked luggage. This will let you have everything you need if you're separated from your checked luggage.

## **Sexuality**

Sexuality includes many aspects of caring and closeness. It isn't only having sex. You and your partner can build other forms of sexual and emotional expression.

Most important, remember that your surgery does not change your feelings for each other. It can help to get sexual counseling to talk about these issues. To see a counselor at one of our sexual health clinics, ask a member of your care team for a referral.

The American Cancer Society (ACS) offers free booklets on cancer and sexual health. They're called *Sex and the Adult Male with Cancer* and *Sex and the Adult Female with Cancer*. You can get copies by visiting the ACS website at [www.cancer.org](http://www.cancer.org) or by calling 800-ACS-2345 (800-227-2345).

## **Managing your feelings**

You may have new and upsetting feelings after a surgery for a serious illness. Many people say they felt weepy, sad, worried, nervous, irritable, or angry at one time or another. You may find that you cannot control some of these feelings. If this happens, it's a good idea to seek emotional support. Your healthcare provider can refer you to MSK's Counseling Center. You can also reach them by calling 646-888-0200.

The first step in coping is to talk about how you feel. Family and friends can help. We can also reassure, support, and guide you. It's always a good idea to let us know how you, your family, and your friends are feeling emotionally. Many resources are available to you and your family. We're here to help you and your family and friends handle the emotional aspects of your illness. We can help no matter if you're in the hospital or at home.

Many people join MSK's online bladder cancer support group. To learn more about our support group, read the "Support services" section of this guide. To learn more about other resources, such as the Bladder Cancer Advocacy Network (BCAN), read the "Bladder cancer support services" section of this guide.

# When to call your healthcare provider



Call your healthcare provider if:

- You have a fever of 101 °F (38.3 °C) or higher.
- You have chills.
- You have any bleeding. This includes bleeding at your incision site, bright red blood in your urine, or large blood clots in your urine.
- You have shortness of breath.
- The skin around your incision is very red or getting more red.
- The skin around your incision is warmer than usual.
- The area around your incision is starting to swell or getting more swollen.
- You have new drainage or more drainage than usual from your incision.
- You see drainage from your incision that looks like pus (thick and milky).
- Your catheter or drainage tubes are not draining.
- Your catheter or drainage tubes become dislodged or fall out.
- Your incision smells bad.
- You have increased pain.
- You have swelling or pain in your legs.
- You feel nauseous (like you're going to throw up) or you're vomiting (throwing up).

- You're not passing gas or did not have a bowel movement in 3 days.
- You have lower urine output. This is when the amount you pee is less than usual.
- You have any problems you did not expect.
- You have any questions or concerns.

## Contact information

If you have questions or concerns, contact your healthcare provider. A member of your care team will answer Monday through Friday from 9 a.m. to 5 p.m. Outside those hours, you can leave a message or talk with another MSK provider. There is always a doctor or nurse on call.

If you're not sure how to reach your healthcare provider, call 212-639-2000.

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# Support services

This section has a list of support services. They may help you as you get ready for your surgery and recover after your surgery.



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

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## **Bladder cancer support group**

This is an online support and education group. It's for people who have bladder cancer or who have been treated for bladder cancer. People share their personal experiences and offer practical and emotional support for one another. It's led by an MSK social worker, nurse, and WOC nurse.

This group meets the second Thursday of each month from noon (12 p.m.) to 1 p.m. For more information or to register, contact your MSK social worker. You can also send a message to your care team through MSK's patient portal, MyMSK. They can connect you with an MSK social worker. A member of your care team will review your message and respond within 2 business days (Monday through Friday).

## **MSK support services**

### **Admitting Office**

212-639-7606

Call if you have questions about your hospital admission, such as asking for 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

We welcome patients from around the world and offer many services to help. If you're an international patient, call for help arranging your care.

## **Counseling Center**

[www.msk.org/counseling](http://www.msk.org/counseling)

646-888-0200

Many people find that counseling helps them. Our Counseling Center offers counseling for individuals, couples, families, and groups. We can also prescribe medicine to help if you feel anxious or depressed. Ask a member of your care team for a referral or call the number above to make an appointment.

## **Food Pantry Program**

646-888-8055

We give food to people in need during their cancer treatment. Talk with a member of your care team or call the number above to learn more.

## **Integrative Medicine Service**

[www.msk.org/integrativemedicine](http://www.msk.org/integrativemedicine)

Our Integrative Medicine Service offers many services to complement (go along with) traditional medical care. For example, we offer music therapy, mind/body therapies, dance and movement therapy, yoga, and touch therapy. Call 646-449-1010 to make an appointment for these services.

You can also schedule a consultation with a healthcare provider in the Integrative Medicine Service. They'll work with you to make a plan for creating a healthy lifestyle and managing side effects. Call 646-608-8550 to make an appointment for a consultation.

## **MSK Library**

[library.mskcc.org](http://library.mskcc.org)

212-639-7439

You can visit our library website or call to talk with the library reference staff. They can help you find more information about a type of cancer. You can also visit the library's Patient and Health Care Consumer Education Guide at [libguides.mskcc.org/patienteducation](http://libguides.mskcc.org/patienteducation)

## **Nutrition Services**

[www.msk.org/nutrition](http://www.msk.org/nutrition)

212-639-7312

Our Nutrition Service offers nutritional counseling with one of our clinical dietitian nutritionists. Your clinical dietitian nutritionist will talk with you about your eating habits. They can also give advice on what to eat during and after treatment. Ask a member of your care team for a referral or call the number above to make an appointment.

## **Patient and Community Education**

[www.msk.org/pe](http://www.msk.org/pe)

Visit our patient and community education website to search for educational resources, videos, and online programs.

## **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 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 Nurses and Companions**

917-862-6373

You can request private nurses or companions to care for you in the hospital and at home. Call to learn more.



## Rehabilitation Services

[www.msk.org/rehabilitation](http://www.msk.org/rehabilitation)

Cancers and cancer treatments can make your body feel weak, stiff, or tight. Some can cause lymphedema (swelling). Our physiatrists (rehabilitation medicine doctors), occupational therapists (OTs), and physical therapists (PTs) can help you get back to your usual activities.

- **Rehabilitation medicine doctors** diagnose and treat problems that affect how you move and do activities. They can design and help coordinate your rehabilitation therapy program, either at MSK or somewhere closer to home. Call Rehabilitation Medicine (Physiatry) at 646-888-1929 to learn more.
- An **OT** can help if you're having trouble doing usual daily activities. For example, they can recommend tools to help make daily tasks easier. A **PT** can teach you exercises to help build strength and flexibility. Call Rehabilitation Therapy at 646-888-1900 to learn more.

## Resources for Life After Cancer (RLAC) Program

646-888-8106

At MSK, care does not end after your treatment. The RLAC Program is for patients and their families who have finished treatment.

This program has many services. We offer seminars, workshops, support groups, and counseling on life after treatment. We can also help with insurance and employment issues.

## Sexual Health Programs

Cancer and cancer treatments can affect your sexual health, fertility, or both. MSK's sexual health programs can help you before, during, or after your treatment.

- Our **Female Sexual Medicine and Women's Health Program** can help with sexual health problems such as premature menopause or fertility

issues. Ask a member of your MSK care team for a referral or call 646-888-5076 to learn more.

- **Our Male Sexual and Reproductive Medicine Program** can help with sexual health problems such as erectile dysfunction (ED). Ask a member of your care team for a referral or call 646-888-6024 to learn more.

## **Social Work**

[www.msk.org/socialwork](http://www.msk.org/socialwork)

212-639-7020

Social workers help patients, families, and friends deal with common issues for people who have cancer. They provide individual counseling and support groups throughout your treatment. They can help you communicate with children and other family members.

Our social workers can also help refer you to community agencies and programs. If you're having trouble paying your bills, they also have information about financial resources. Call the number above to learn more.

## **Spiritual Care**

212-639-5982

Our chaplains (spiritual counselors) are available to listen, help support family members, and pray. They can contact community clergy or faith groups, or simply be a comforting companion and a spiritual presence. Anyone can ask for spiritual support. You do not have to have a religious affiliation (connection to a religion).

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**

[www.msk.org/tobacco](http://www.msk.org/tobacco)

212-610-0507

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

## **Virtual Programs**

[www.msk.org/vp](http://www.msk.org/vp)

We offer online education and support for patients and caregivers. These are live sessions where you can talk or just listen. You can learn about your diagnosis, what to expect during treatment, and how to prepare for your cancer care.

Sessions are private, free, and led by experts. Visit our website to learn more about Virtual Programs or to register.

## **External support services**

There are many other services available to help you before, during, and after your cancer treatment. Some offer support groups and information. Others can help with transportation, lodging, and treatment costs.

Visit [www.msk.org/pe/external\\_support\\_services](http://www.msk.org/pe/external_support_services) for a list of these support services. You can also call 212-639-7020 to talk with an MSK social worker.

## **Bladder cancer support services**

### **Bladder Cancer Advocacy Network**

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

This website has bladder cancer education and resources, such as fact sheets, podcasts, and webinars. It also has bladder cancer support services. This includes a toll-free support line and a list of support groups by state.

**National Association for Continence**

www.nafc.org

This website has information and resources for people with continence problems. It tells you about Kegel exercises you can do, and incontinence supplies you can buy. It also has a directory that can refer you to doctors in your area who can treat your continence problems.

**Wound, Ostomy, and Continence Nurses Society**

www.wocn.org/learning-center/patient-resources

Visit this website to find a WOC nurse in your area. Many WOC nurses can only see you if there’s an outpatient clinic at their hospital. Or, they can only see you if you have a doctor at their hospital.

The website also has information on resources and support groups for people with wounds, ostomies, and continence problems.

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These are the educational resources that were mentioned in this guide. You can find them online or ask a member of your care team for a printed copy.

- ***A Guide for Caregivers*** ([www.msk.org/pe/guide\\_caregivers](http://www.msk.org/pe/guide_caregivers))
- ***About Your Urinary (Foley) Catheter: How To Clean and Care for It*** ([www.msk.org/pe/caring\\_foley\\_catheter](http://www.msk.org/pe/caring_foley_catheter))
- ***Advance Care Planning for People With Cancer and Their Loved Ones*** ([www.msk.org/pe/advance\\_care\\_planning](http://www.msk.org/pe/advance_care_planning))
- ***Call! Don't Fall!*** ([www.msk.org/pe/call\\_dont\\_fall](http://www.msk.org/pe/call_dont_fall))
- ***Caring for Your Jackson-Pratt Drain*** ([www.msk.org/pe/caring\\_jackson\\_pratt](http://www.msk.org/pe/caring_jackson_pratt))
- ***Constipation*** ([www.msk.org/pe/constipation](http://www.msk.org/pe/constipation))
- ***Diarrhea*** ([www.msk.org/pe/diarrhea](http://www.msk.org/pe/diarrhea))
- ***Eating Well During Your Cancer Treatment*** ([www.msk.org/pe/eating\\_cancer\\_treatment](http://www.msk.org/pe/eating_cancer_treatment))
- ***Fertility Preservation Before Cancer Treatment: Options for People Born with Ovaries and a Uterus*** ([www.msk.org/pe/fertility\\_starting\\_treatment](http://www.msk.org/pe/fertility_starting_treatment))
- ***Frequently Asked Questions About Walking After Your Surgery*** ([www.msk.org/pe/walking\\_after\\_surgery](http://www.msk.org/pe/walking_after_surgery))
- ***General Exercise Program: Level 2*** ([www.msk.org/pe/general\\_exercise\\_2](http://www.msk.org/pe/general_exercise_2))
- ***Herbal Remedies and Cancer Treatment*** ([www.msk.org/pe/herbal\\_remedies](http://www.msk.org/pe/herbal_remedies))
- ***How to Be a Health Care Agent*** ([www.msk.org/pe/health\\_care\\_agent](http://www.msk.org/pe/health_care_agent))

- ***How To Check if a Medicine or Supplement Has Aspirin, Other NSAIDs, Vitamin E, or Fish Oil***  
([www.msk.org/pe/check-med-supplement](http://www.msk.org/pe/check-med-supplement))
- ***How to Enroll in MyMSK: Memorial Sloan Kettering's Patient Portal***  
([www.msk.org/pe/enroll\\_mymsk](http://www.msk.org/pe/enroll_mymsk))
- ***How To Use Your Incentive Spirometer***  
([www.msk.org/pe/incentive\\_spirometer](http://www.msk.org/pe/incentive_spirometer))
- ***Information for Family and Friends for the Day of Surgery***  
([www.msk.org/pe/info\\_family\\_friends](http://www.msk.org/pe/info_family_friends))
- ***Patient-Controlled Analgesia (PCA)*** ([www.msk.org/pe/pca](http://www.msk.org/pe/pca))
- ***Pelvic Floor Muscle (Kegel) Exercises for Females***  
([www.msk.org/pe/kegels\\_females](http://www.msk.org/pe/kegels_females))
- ***Pelvic Floor Muscle (Kegel) Exercises for Males***  
([www.msk.org/pe/kegels\\_males](http://www.msk.org/pe/kegels_males))
- ***Sperm Banking*** ([www.msk.org/pe/sperm\\_banking](http://www.msk.org/pe/sperm_banking))
- ***Urination Schedule for Your Neobladder***  
([www.msk.org/pe/urination-schedule-neobladder](http://www.msk.org/pe/urination-schedule-neobladder))
- ***What You Can Do to Avoid Falling*** ([www.msk.org/pe/avoid\\_falling](http://www.msk.org/pe/avoid_falling))

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PATIENT & CAREGIVER EDUCATION

# About Your Urinary (Foley) Catheter: How To Clean and Care for It

This information will help you care for your urinary (Foley) catheter.

## About your urinary (Foley) catheter

Your Foley catheter is a thin, flexible tube placed through your urethra (the small tube that carries urine from your bladder to outside your body) and into your bladder. Your Foley catheter drains your urine (pee). It's held inside your bladder by a balloon filled with water.

## How your Foley catheter works

Your urine goes from your bladder and through a drainage tube into a drainage collection bag. The drainage bag stays on your leg with a special tape called Cath-Secure®.

You will have 2 types of drainage bags:

- **A leg bag.** This is the bag that you wear during the day. It holds half a liter of urine.
- **A night bag.** This is the bag you will put on at night before you go to bed. It holds 2 liters of urine.

The parts of the catheter that are outside your body are shown in Figure 1.

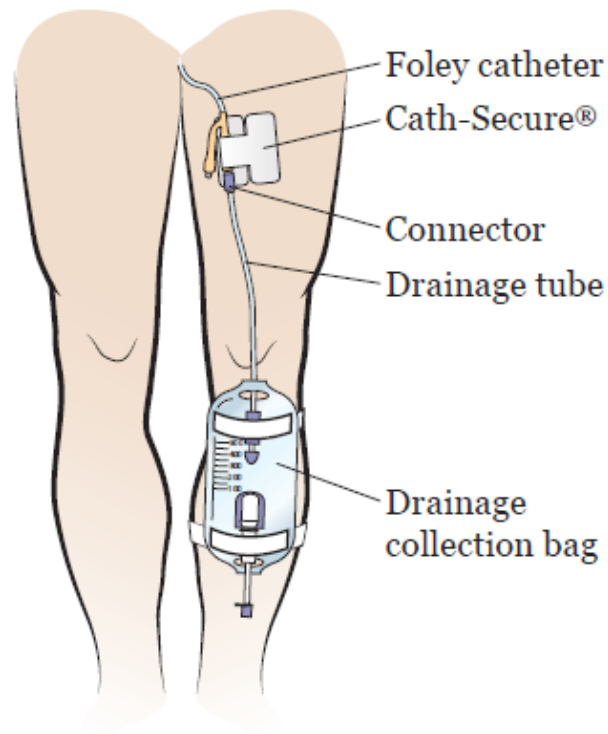


Figure 1. The parts of your Foley catheter and drainage bag

## How to take care of your Foley catheter

To take care of your Foley catheter, you will need to:

- Clean your catheter every day.
- Change your drainage bags. You will change your drainage bag 2 times a day:
  - In the morning, change the night bag to the leg bag.
  - At night before you go to bed, change the leg bag to the night bag.
- Replace your drainage bags with new bags once a week. You should also change your drainage bag if it gets clogged or blocked.
- Wash your drainage bags every day.
- Drink 1 to 2 glasses of liquids every 2 hours while you're awake to keep you hydrated.

You may see some blood or urine around where the catheter enters your

body. This may happen when you're walking or having a bowel movement (pooping). This is normal if there's urine draining into the drainage bag. **If you do not have urine draining into the drainage bag, call your healthcare provider.**

## **How to comfortably wear your Foley catheter and leg bag**

- The tubing from your leg bag should fit down to your calf with your leg slightly bent. If you have extra tubing, you may need to cut it. Your healthcare provider will show you how to do this.
- Always wear the leg bag below your knee. This will help it drain.
- Place the leg bag on your calf using the Velcro® straps your healthcare provider gave you. Use a leg strap to secure the tubing to your thigh.
- If the straps leave a mark on your leg, they are too tight. Loosen them. Leaving the straps too tight can lower your blood flow and cause blood clots.
- Use a water-based lubricant (such as Astroglide® or K-Y®) to keep your penis or vagina opening from getting sore.
- Keep your penis or vagina opening clean by taking a shower every day. This will help prevent infections when your Foley catheter is in place.

## **How to shower with your Foley catheter**

- You can shower while you have your catheter in place.
- Do not take a bath until your catheter is removed. Taking a bath while you have your catheter in place puts you at risk for infections.
- Make sure you always shower with your night bag. Your night bag is waterproof. Do not shower with your leg bag. Your leg bag has cloth on the side and will not dry as fast.
  - You may find it easier to shower in the morning before you change your night bag to your leg bag.

# How to clean your Foley catheter

You can clean your catheter while you're in the shower. Follow these instructions.

1. Gather your supplies. You will need:
  - Mild soap, such as Dove®.
  - 1 Cath-Secure®.
2. Clean your hands with soap and water or an alcohol-based hand sanitizer.
  - If you're washing your hands with soap and water, wet your hands and apply soap. Rub your hands together well for at least 20 seconds, then rinse. Dry your hands with a paper towel. Use that same towel to turn off the faucet.
  - If you're using an alcohol-based hand sanitizer, cover your hands with it. Rub them together until they're dry.
3. Using mild soap and water, clean your penis or vagina.
  - If you have a penis, pull back your foreskin (the skin around the tip of your penis), if needed. Clean the area, including your penis.
  - If you have a vagina, separate your labia (the smaller folds of skin around your vaginal opening). Clean the area from front to back.
4. Clean the area where the catheter enters your body. This is called your urethra.
5. Clean the catheter from where it enters your body and then down, away from your body. Hold the catheter at the point it enters your body so that you do not put tension on it.
6. Rinse the area well and dry it gently.
7. If you removed your old Cath-Secure, attach the catheter to your leg with a new Cath-Secure. This will keep the catheter from moving.

# When to change your drainage bags

You will change your drainage bag 2 times a day. Change it:

- In the morning after you shower, change the night bag to the leg bag.
- At night before you go to bed, change the leg bag to the night bag.

Replace your drainage bags with new bags once a week. You should also change your drainage bag if it gets clogged or blocked.

## How to change your drainage bag



Please visit [www.mskcc.org/cancer-care/patient-education/video/how-change-your-foley-catheter-drainage-bag](http://www.mskcc.org/cancer-care/patient-education/video/how-change-your-foley-catheter-drainage-bag) to watch this video.

1. Gather your supplies. You will need:
  - A clean cloth (not one you're using for bathing) or a 4 x 4 piece of gauze.
  - Your night or leg bag (whichever one you are switching to).
  - 2 alcohol pads.
2. Clean your hands with soap and water or an alcohol-based hand sanitizer.
  - If you're washing your hands with soap and water, wet your hands and apply soap. Rub your hands together well for at least 20 seconds, then rinse. Dry your hands with a paper towel. Use that same towel to turn off the faucet.
  - If you're using an alcohol-based hand sanitizer, cover your hands with it. Rub them together until they're dry.
3. Empty the urine from the drainage bag into the toilet. Make sure the spout of the drainage bag never touches the side of the toilet or any emptying container. If it does, wipe it with an alcohol pad for 15 seconds.

4. Place the clean cloth or gauze under the connector to catch any leakage.
5. Pinch the catheter with your fingers and disconnect the used bag.
6. Wipe the end of the catheter with an alcohol pad.
7. Wipe the connector on the new bag with the second alcohol pad.
8. Connect the clean bag to the catheter and release your finger pinch. Make sure the catheter is tightly connected to the bag to keep it from opening or leaking.
9. Check all connections. Straighten any kinks or twists in the tubing.

## **How to take care of your drainage bags**

### **Caring for your leg drainage bag**

- Empty the leg bag into the toilet every 2 to 4 hours, as needed. You can do this through the spout at the bottom of the bag. Do not let the bag get completely full.
- Do not lie down for longer than 2 hours while you're wearing the leg bag. This can keep your urine from draining the way it should.

### **Caring for your night drainage bag**

- Always keep the night bag below the level of your bladder.
- When you go to sleep, hang your night bag off the bed. You can do this by using a small trash can. Place a clean plastic bag inside the trash can. Hang your night bag inside of the trash can.

### **Cleaning your drainage bags**

Clean your leg bag and night bag every day. Follow these instructions.

1. Gather your supplies. You will need:
  - White vinegar.
  - Cool water.
2. Clean your hands with soap and water or an alcohol-based hand

sanitizer.

- If you're washing your hands with soap and water, wet your hands and apply soap. Rub your hands together well for at least 20 seconds, then rinse. Dry your hands with a paper towel. Use that same towel to turn off the faucet.
  - If you're using an alcohol-based hand sanitizer, cover your hands with it. Rub them together until they're dry.
3. Rinse the bag with cool water. Do not use hot water because it can damage the plastic.
  4. To help get rid of the smell, fill the bag halfway with a mixture of 1 part white vinegar and 3 parts water. Shake the bag and let it sit for 15 minutes.
    - If you cannot get the mixture into the bag, try putting the vinegar and water into a measuring cup with a pour spout. Then use the spout to help pour the mixture into the bag.
  5. Rinse the bag with cool water. Hang it up to dry.

## **How to prevent Foley catheter infections**

Follow these guidelines to prevent getting infections while you have your catheter in place:

- Keep the drainage bag below the level of your bladder.
- Always keep your drainage bag off the floor.
- Keep the catheter secured to your thigh to keep it from moving.
- Do not lie on your catheter or block the flow of urine in the tubing.
- Take a shower every day to keep the catheter clean.
- Wash your hands before and after touching the catheter or bag.

# **Common questions about caring for your Foley catheter**

## **Can I place a Foley catheter myself?**

No. Your catheter is placed by your healthcare provider.

## **How long can I wear my Foley catheter before it needs to be changed?**

Your catheter should be replaced about once a month, if it stops working, or if you have an infection.

## **Can I poop when I have a Foley catheter?**

Yes. Your catheter will not affect your pooping.

## **Can I get an erection with a Foley catheter?**

Yes. You can get an erection with a catheter in place.

## **Can I drive with a Foley catheter?**

You can drive with a catheter unless your healthcare provider gives you other instructions.

## **Can I exercise with a Foley catheter?**

Ask your healthcare provider if you can exercise while you have a Foley catheter in place.

## **Can I swim with a Foley catheter?**

No. You cannot swim with a catheter in place.

## **Can I fly on an airplane with a Foley catheter?**

Yes. You can fly on an airplane with a catheter.



# When to call your healthcare provider

Call your healthcare provider right away if:

- Your catheter comes out. Do not try to put it back in yourself.
- You have a fever of 101°F (38.3 °C) or higher.
- You're making less urine than usual.
- You do not have urine draining into your drainage bag.
- Your urine smells bad.
- You have bright red blood or large blood clots in your urine.
- You have abdominal (belly) pain and no urine in your catheter bag.

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](http://www.mskcc.org/pe) to search our virtual library.

About Your Urinary (Foley) Catheter: How To Clean and Care for It - Last updated on June 12, 2023

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PATIENT & CAREGIVER EDUCATION

# General Exercise Program: Level 2

This information explains Level 2 of a general exercise program that will help you with your physical recovery.

This exercise program works the major muscle groups that you use for everyday activities. Regular exercise with resistance (from gravity, elastic bands, or hand weights) will help you:

- Get back to doing your everyday activities.
- Increase your muscle strength.

You should also do other exercises, such as walking, to help build your strength. Your rehabilitation (rehab) therapist may change your exercise program to meet your needs. Talk with your healthcare provider before you start this program.

## Exercise Tips

- Dress comfortably. You should wear clothing that won't limit your movements. You can wear a hospital gown, pajamas, or athletic clothing.
- 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.
- Do some of the exercises in front of a mirror to keep the right form and posture.
- Your therapist may give you an elastic exercise band (Thera-Band®). Use the

band for resistance during the exercises. Follow your therapist's instructions.

- Move slowly through all movements. Slow, controlled movements will:
- Use more muscle fibers.
- Help you strengthen every part of your muscle.
- Put as much effort into releasing from the movement as you did starting it. Do this especially during strengthening exercises.
- For example, when doing bicep curls, lower your arm as slowly and with as much control as when you lifted it. When you lower your arm in this way, it's called a "lengthening contraction." This strengthens the muscle more than just doing an upward curl.
- Stop any exercise that causes you pain or discomfort and tell your physical therapist. You can continue to do the other exercises.

## Special Instructions

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## Exercises

### Bridging

1. Lie on your back with both knees bent and your feet on the bed. Keep your arms at your sides (see Figure 1).



Figure 1. Lying on your back with your knees bent

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2. Tighten the muscles in your abdomen (belly) and buttocks.
3. Push through your feet and lift your buttocks 3 to 4 inches off the bed (see Figure 2).



Figure 2. Pushing up through your feet

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4. Hold the position for 5 seconds.
5. Then, slowly lower your buttocks back onto the bed.
6. Repeat 10 times.

## Mini squats

1. While standing, hold on to the back of a stable chair, locked bed rail, or handrail in the hallway for balance.
2. Place your feet 6 to 12 inches away from the bed or counter. Your feet should be shoulder-width apart. Keep your back straight (see Figure 3)



Figure 3. Bending your hips and knees

3. Slowly bend your hips and knees until your knees are at about a 45-degree angle (see Figure 3).
4. Hold this position for 5 seconds.
5. Slowly straighten your hips and knees until you're standing upright.
6. Repeat 10 times.

## Heel raises

1. While standing, hold on to the back of a stable chair, locked bed rail, or handrail in the hallway for balance.
2. Place your feet about 6 inches apart.
3. Slowly push up onto your toes, lifting your heels off of the floor (see Figure 4).

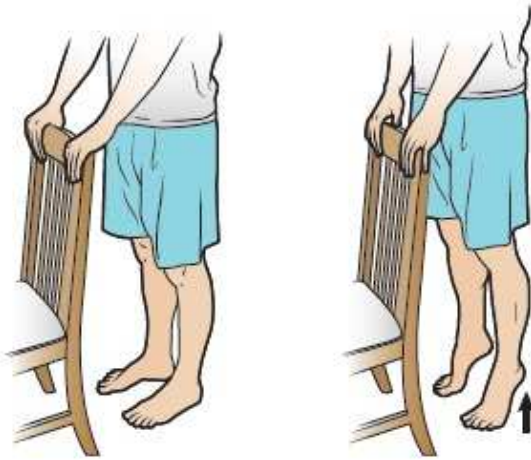


Figure 4. Lifting your heels off the floor

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4. Hold the position for 5 seconds.
5. Slowly lower your heels back down to the floor.
6. Repeat 10 times.

## Standing hamstring curls

1. While standing, hold on to the back of a stable chair, locked bed rail, or handrail in the hallway for balance.
2. Bend your left knee, bringing your heel toward your buttocks. Keep your knees even with each other (see Figure 5). Stand tall and don't bend your hips.



Figure 5. Bending your knee

---

3. Lower your foot back down to the floor.
4. Repeat 10 times
5. Repeat with your right leg.

## Standing hip extensions

1. While standing, hold on to the back of a stable chair, locked bed rail, or handrail in the hallway for balance.
2. Extend your left leg behind you at the hip, while keeping your knee straight. Stand up straight (see Figure 6). Don't lean forward.



Figure 6. Extending your leg behind you

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3. Hold for 5 seconds.
4. Bring your leg forward to rest on the floor next to your other leg.
5. Repeat 10 times.
6. Repeat with your right leg.

## Standing side kicks

1. Hold on to the backrest of a stable chair, a locked bed rail, or handrail in the hallway for balance. Stand up straight. Don't lean to the side or forward.
2. Lift your right leg out to the side while keeping your toe pointed forward (see



Figure 7).

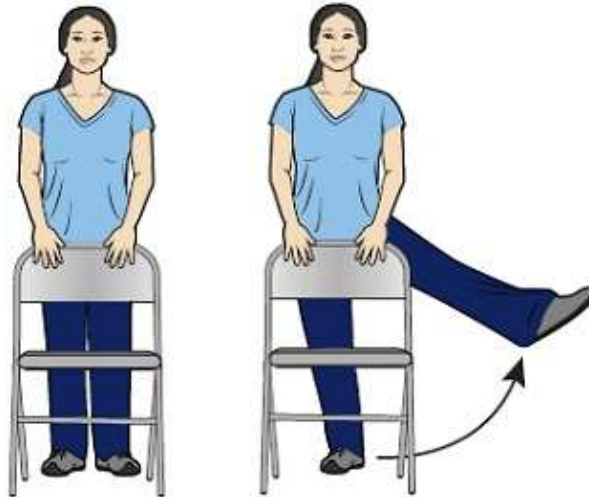


Figure 7. Lifting your leg to the side

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3. Hold for 5 seconds.
4. Bring your raised leg back in to meet your other leg.
5. Repeat 10 times
6. Repeat the exercise with your left leg.

## Arm raises

1. Sit or stand comfortably with your back straight, shoulders back, and your head facing forward.
2. Raise your arms out to the side, up to the level of your shoulders, while keeping your elbows straight (see Figure 8).

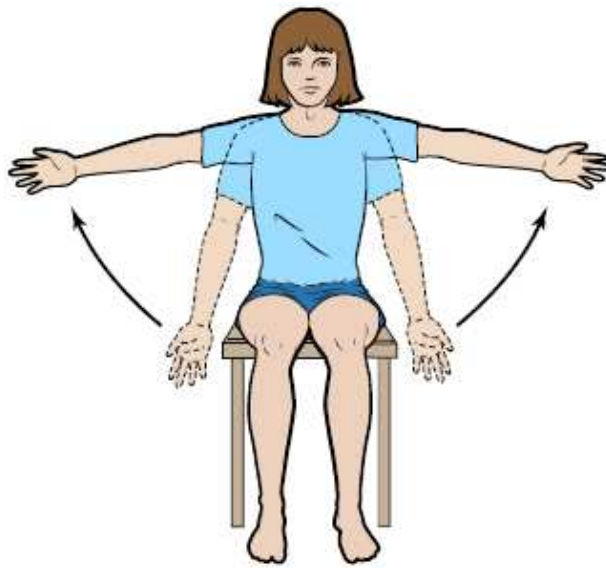


Figure 8. Raising your arms out to the side

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3. Hold for 5 seconds.
4. Lower your arms to your sides.
5. Repeat this 10 times.

## Tricep extensions

1. Sit comfortably with your back straight, shoulders back, and head facing forward.
2. Pick up an elastic exercise band with both hands. Position your hands in front of your chest with your elbows raised out to your sides, parallel with the floor (see Figure 9).

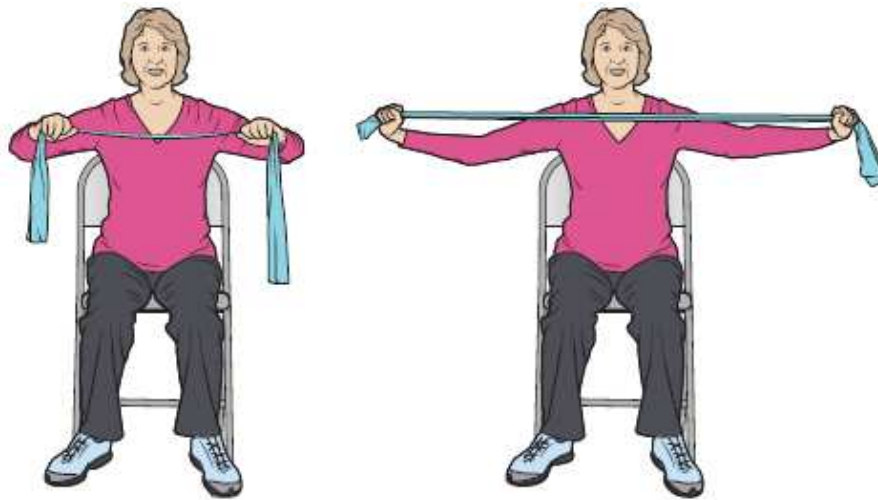


Figure 9. Stretching your arms out using an elastic band

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3. Straighten your elbows fully until your arms are extended out to your sides. Keep the stretched band at chest level (see Figure 9).
4. Bend your elbows and slowly bring your hands back in toward your chest while keeping your upper arms raised.
5. Repeat 10 times.

## **Bicep curls**

1. Sit comfortably with your back straight, shoulders back, and your head facing forward. Keep your right arm straight with your elbow at your side.
2. Place one end of the exercise band under your right foot. Hold the other end of the band with your right hand (see Figure 10).



Figure 10. Bicep curls with an elastic band

---

3. With your arm close to your side, bend your elbow, bringing your hand toward your right shoulder (see Figure 10).
4. Hold for 5 seconds.
5. Lower your hand back down to the starting position.
6. Repeat 10 times.
7. Repeat with your left hand and left foot.

## Scapular retractions

1. Sit comfortably with your back straight, shoulders back, and head facing forward.
2. Hold the ends of the exercise band in each hand. Raise your arms to shoulder height, keeping your elbows bent with your hands in front of your chest. Stretch out the exercise band to provide resistance (see Figure 11).



Figure 11. Moving your arms back and squeezing your shoulder blades together

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3. Move your arms back so that they are slightly behind you while squeezing your shoulder blades together (see Figure 11).
4. Hold for 5 seconds.
5. While keeping your arms raised, bring them forward so that your hands are in front of your chest again.
6. Repeat 10 times.

## Seated push-ups

1. Sit comfortably in a chair with armrests. Keep your back straight, shoulders back, and head facing forward.
2. Place your hands on the armrests of the chair. Place your feet shoulder distance apart, right below your knees.
3. Position yourself as if you're going to stand up (see Figure 12).

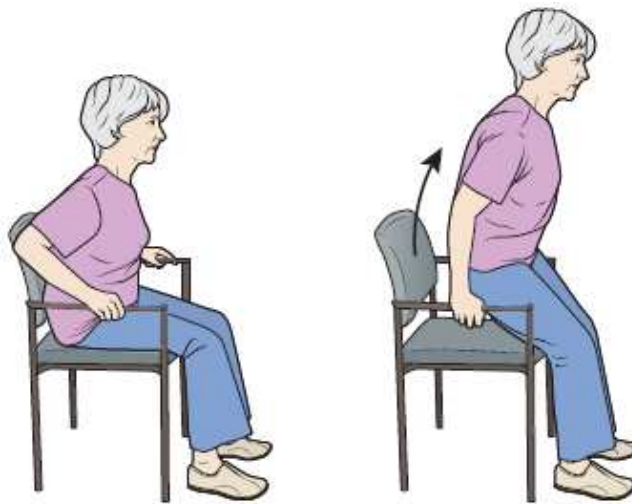


Figure 12. Lifting your body off your seat

4. Straighten your elbows and lift your buttocks off the seat until your elbows are straight. Lift your buttocks as high as you can, even if you can't get off the chair completely (see Figure 12).
5. Slowly lower yourself back onto the seat of your chair as you bend your elbows.
6. Repeat 10 times.

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](http://www.mskcc.org/pe) to search our virtual library.

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General Exercise Program: Level 2 - Last updated on February 28, 2021

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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](http://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](http://www.mskcc.org/IntegrativeMedicine) or read *Integrative Medicine Therapies and Your Cancer Treatment* ([www.mskcc.org/pe/integrative\\_therapies](http://www.mskcc.org/pe/integrative_therapies)).

For more resources, visit [www.mskcc.org/pe](http://www.mskcc.org/pe) to search our virtual library.

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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](http://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.

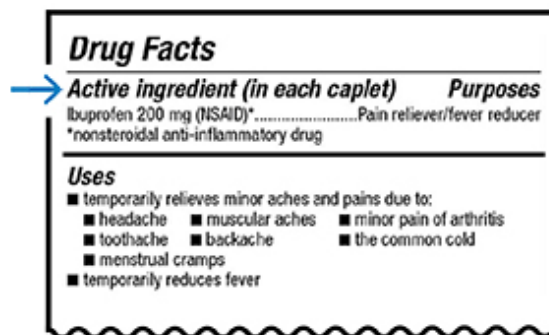


Figure 1. Active ingredients on an over-the-counter medicine label

# 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).

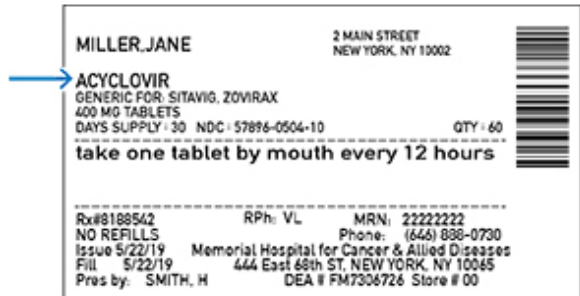


Figure 2. Active ingredients on a prescription medicine label

# 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 <sub>6</sub> (as pyridoxine hydrochloride)	2.0 mg	100%
Folate (as folic acid)	400 mcg	100%
Vitamin B <sub>12</sub> (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"><li>• Acetylsalicylic acid</li><li>• Alpha-linolenic acid (ALA)</li><li>• Aspirin</li><li>• Acetaminophen*</li><li>• Celecoxib</li><li>• Diclofenac</li><li>• Diflunisal</li><li>• Docosahexaenoic acid (DHA)</li><li>• Eicosapentaenoic acid (EPA)</li></ul>	<ul style="list-style-type: none"><li>• Etodolac</li><li>• Fish oil</li><li>• Fenoprofen Flurbiprofen</li><li>• Ibuprofen</li><li>• Indomethacin</li><li>• Ketoprofen</li><li>• Ketorolac</li><li>• Meclofenamate</li><li>• Mefenamic acid</li><li>• Meloxicam</li></ul>	<ul style="list-style-type: none"><li>• Nabumetone</li><li>• Naproxen</li><li>• Omega-3 fatty acids</li><li>• Omega-6 fatty acids</li><li>• Oxaprozin</li><li>• Piroxicam</li><li>• Sulindac</li><li>• Tolmetin</li><li>• Vitamin E</li></ul>

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

## 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](http://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.

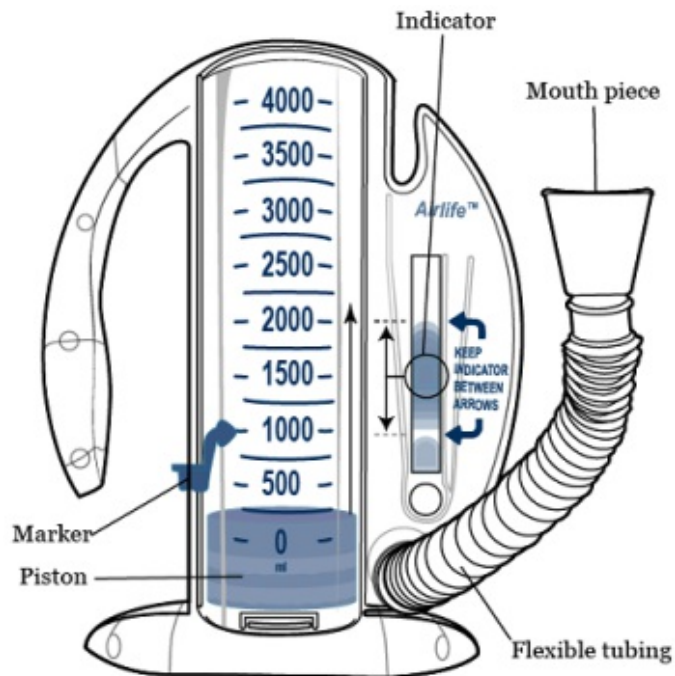


Figure 1. Parts of an incentive spirometer

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](http://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](http://www.mskcc.org/pe) to search our virtual library.

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