Multiple Sclerosis and Your Bladder

A healthy urinary tract is key for your quality of life

Hollister

Continence Care

Let's talk about your bladder—and your life with MS.

Multiple sclerosis (MS) is sometimes called "the disease of the 1000 faces," because the clinical picture can be so different from one person to the next.

One of these "faces" can be bladder symptoms. Many, if not most people, with MS will, sooner or later, experience some degree of bladder dysfunction. (In some cases, bladder issues are among the first signs that a person has multiple sclerosis.) So, if your MS has caused bladder symptoms, you are not alone.

It's not always easy to talk about bladder dysfunction. That's why we've created this book—to help you understand what's happening with your bladder, show you the range of options available for treating and controlling your bladder symptoms, and help you use them so you can live life to the fullest.

Bladder dysfunction is treatable, and the better you understand it, the better you will be able to live the life you love—even with MS. **Please discuss what you learn in this book with your care team, so they can help you explore the options that best fit your body and your life!**

We would like to thank Katherine Marchese, ANP-BC, CUNP, in the United States, Dr. Wolfgang Feneberg, and Dr. Harold Burgdörfer in Germany for their outstanding professional and highly committed support in the preparation of this booklet.

The information provided in this guide is not medical advice and is not intended to substitute for the recommendations of your personal physician or other healthcare professional. This guide should not be used to seek help in a medical emergency. If you experience a medical emergency, seek medical treatment in person immediately.

Contents

A healthy urinary tract system

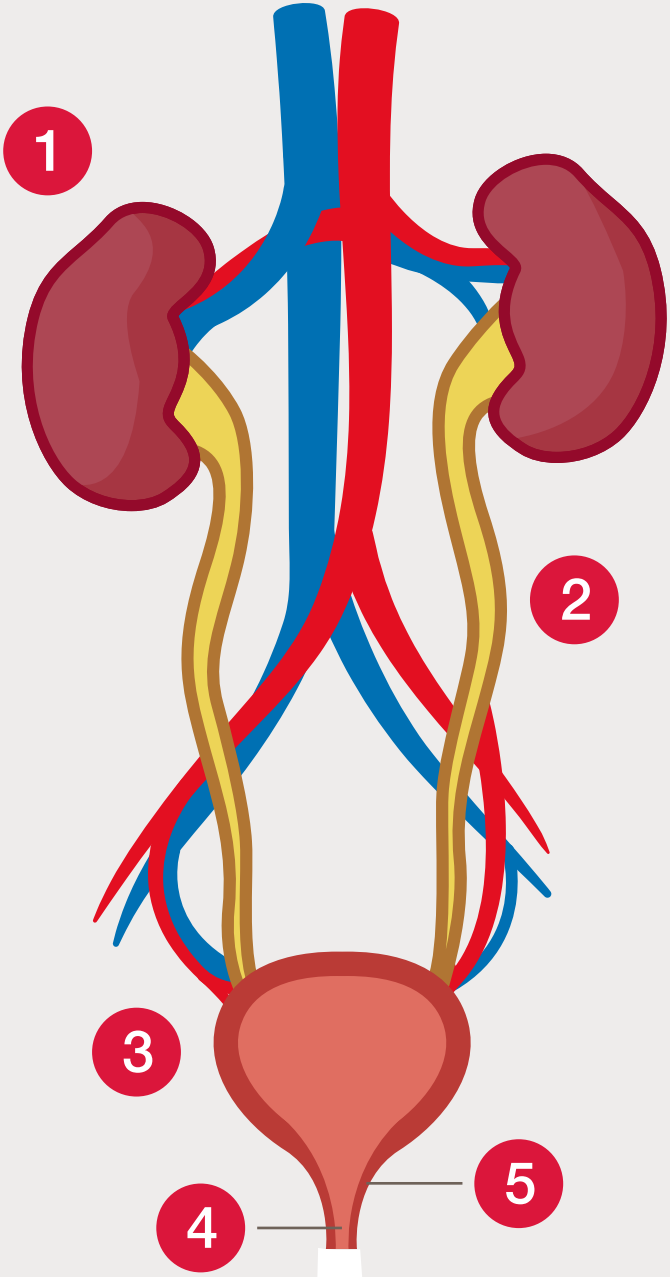
Why does your bladder sometimes behave abnormally? To answer that, let's look at the anatomy of a healthy urinary tract system.

Your bladder is part of a complex structure called the urinary tract system, which also includes the kidneys, ureters, urethra, and internal and external sphincters. Each of these components has its own important function.

1. **The kidneys** filter waste products—such as excess water, toxins, or salts from the blood—into urine.
2. **The ureters** are two narrow, muscular tubes that propel the urine from the kidneys to the bladder.
3. **The bladder** is a hollow organ with a muscle wall, called the detrusor. The bladder's first job is to store urine—which it does for more than 99% of the time—and its second job is to empty that urine.
4. **The urethra** is a tubular structure lined with a mucous membrane that carries urine from the bladder out of the body.
5. **Two sphincters** surround the urethra. They function like shut-off valves.
   - **The internal sphincter** (located at the bladder base) holds urine in the bladder during its storage phase. People cannot consciously control the inner sphincter.
   - **The external sphincter** (located at the end of the urethra) remains tightly closed or contracted until the bladder receives the message from the brain it is NOW a good time to empty the bladder of the urine. Most people can consciously control the outer sphincter.

The two sphincters work best when they are surrounded by healthy, strong pelvic floor muscles. **For the bladder to empty, the two sphincters and the bladder muscle must work together**—as the internal and external sphincters relax and open, the detrusor contracts to empty the urine from the bladder.

A person with a healthy urinary tract system can completely empty their bladder with little pressure, leaving no residual urine remaining in the bladder.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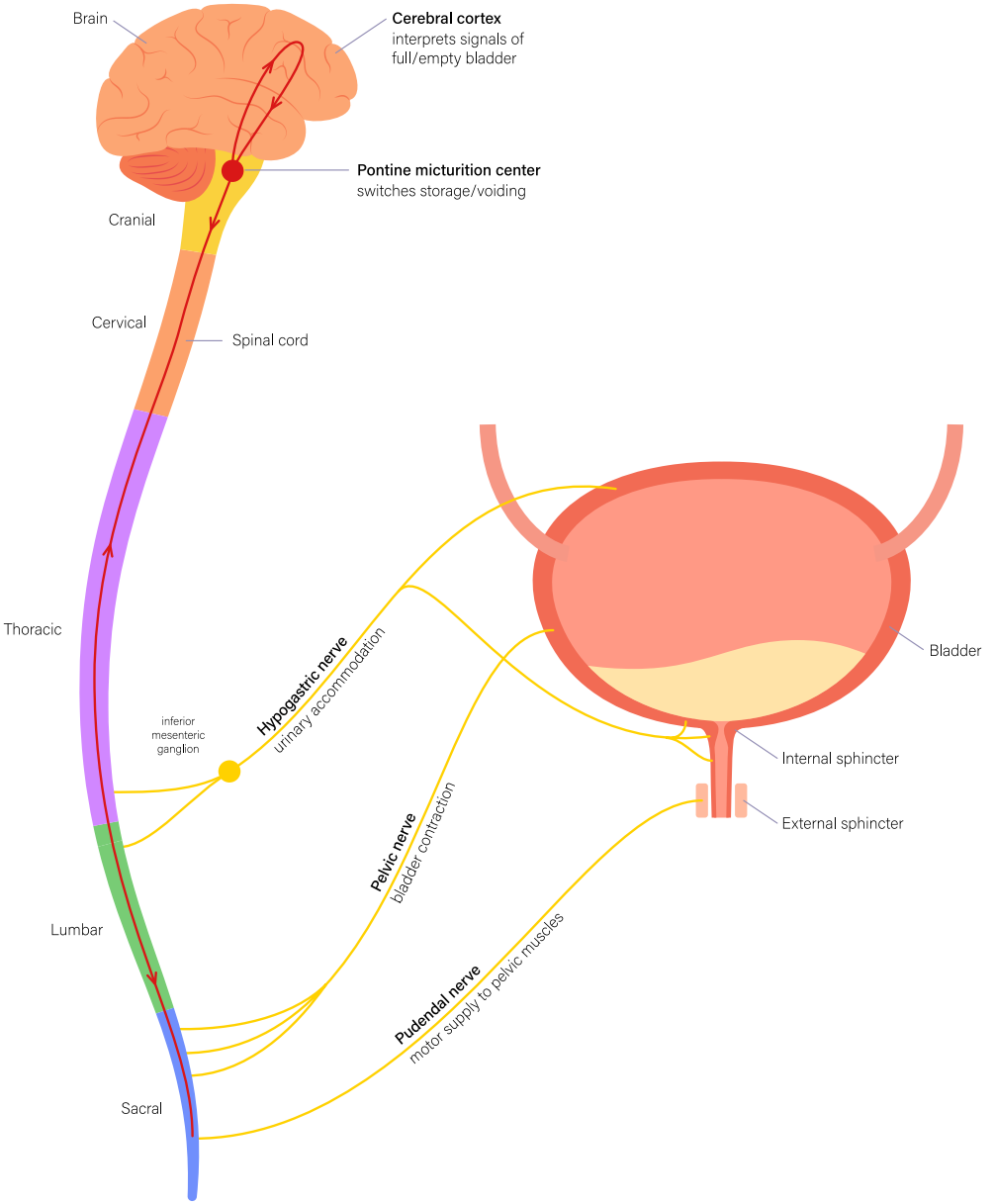
The role of the central nervous system in urinary function

The central nervous system includes the brain and spinal cord.
Many parts of the central nervous system help control the bladder.



- **The sacral micturition center**
  —in the spinal cord at the level of the 1st and 2nd lumbar vertebrae
- **The cerebral micturition center**
  —in the cerebrum in the brain's frontal lobe
- **The pontine micturition center**
  —in the bridge of the brain stem
- **The thoracic reflex center**
  —in the spinal cord
- **The sacral micturition center**
  —in the spinal cord at the level of the 1st and 2nd lumbar vertebrae

For a person whose nervous system is functioning normally, here's how the process of urination works:

1. When the bladder begins to fill, it sends nerve impulses to the sacral micturition center which then passes the message on to the cerebral micturition center.
2. This message gets transferred back to the bladder as the sensation of needing to urinate.
3. The person then decides if it's the right time to go to the bathroom.
4. The peripheral nerves of the pelvic floor help control the flow of urine. A person can voluntarily tense or loosen these muscles to allow the flow of urine.
5. When they decide it's time to empty their bladder, the pontine micturition center sends a signal to the sacral micturition center that tells the sphincter muscles to relax and the bladder muscle to contract.

For someone's urinary tract to function optimally, they need an intact central nervous system that enables error-free communication to coordinate the interactions between the brain, the bladder, and sphincter muscles.

Multiple sclerosis and bladder dysfunction

Multiple sclerosis (MS) is a chronic, inflammatory, and degenerative disease of the central nervous system, in which the protective myelin sheaths surrounding the nerve fibers in the spinal cord are damaged. At the sites where the sheaths are damaged—the MS lesions—transmission of nerve impulses through the spinal cord are blocked or slowed. Basically, the nerve damage caused by MS disrupts the communication between the brain and all necessary body systems.

In this guide, we'll focus on how these lesions impair nerve signals between the brain and the urinary tract in a person with MS, resulting in bladder dysfunction. The term "bladder dysfunction" describes problems with a bladder's ability to store and release urine.

Bladder dysfunction symptoms

You may experience one or several symptoms of bladder dysfunction, which can vary depending on the location and severity of your MS lesions.

- **Urinary frequency** is when you feel you are going to the bathroom too often during the day.
- **Urgency** is when you feel a sudden strong urge to urinate which is too difficult to ignore—even when you just went to the bathroom.
- **Urinary retention** is when you do not completely empty your bladder during urination. Retention also refers to an inability to start your urine flow.
- **Nocturia** is when you get up at least once every night to urinate.
- **Reflux of urine** occurs when your bladder is overfilled, and the urine backs up into your ureters and kidneys.
- **Urinary incontinence** is an involuntary loss of urine from your bladder. The amount of urine leaked can be drops, small squirts, or complete accidental loss of all the urine in your bladder.

You may also experience hesitancy when you urinate, an altered stream of urine, interrupted urine flow, and/or a slow dribbling of urine.

Just as MS is different for everyone, everyone's bladder dysfunction can be different, too. That's why it's so important that you carefully take note of possible changes and share them with your care team.

Types of bladder dysfunction

These symptoms are caused by one of three major types of bladder dysfunction. Here's a brief overview of each.

Overactive bladder (OAB)

Overactive bladder is defined as a sudden, urgent need to empty your bladder that is difficult to ignore—your bladder muscles contract strongly and very rapidly, telling your brain to empty the bladder NOW.

Many people with MS—especially in the first few years—experience this strong need to urinate that sends them rushing to the bathroom. Your bladder may not even be full; you may have gone to the bathroom a few minutes ago! This urge sensation can also be triggered by physical activity or even psychological tension. Sometimes the urge is so strong that you may experience the sudden, unexpected loss of urine. This is called urinary incontinence.

The overpowering urge sensation can cause anxiety and depression. It can even alter your social life, because you worry about where the bathrooms are and what you'll do if you have unexpected incontinence. Your quality of life can be greatly impacted.

Other complications of an overactive bladder include urinary tract infections (UTIs), bladder stones, increased risk for falls and injuries while rushing to the bathroom, and sleep disturbances. Long-term OAB complications may also develop into a flaccid bladder as your bladder muscles become overstretched and damaged.

Flaccid bladder, also known as underactive bladder (UAB)

A flaccid bladder is almost the opposite of an overactive bladder. With UAB, your bladder muscle is not contracting strongly enough to start the flow of urine, or long enough to completely empty your bladder.

You may not feel the urge to urinate despite a large amount of urine in your bladder, so your bladder may

stretch to contain more than 500 ml (a little more than a pint) of urine. This results in urinary retention and overstretching of the bladder muscle, along with many risks associated with those conditions.

Serious complications of a flaccid bladder can be frequent UTIs, bladder and kidney stones, and hydronephrosis—a condition in which urine backs up into the kidney, possibly causing permanent kidney damage. You may notice flank pain or abdominal pain as a symptom of urinary retention and hydronephrosis.

If you feel your bladder may be full, but you cannot initiate the flow of urine or can't empty completely, that's called urinary retention. This is a urological emergency. Please contact your care team—or, if necessary, go to an emergency room—as soon as possible.

Detrusor Sphincter Dyssynergia (DSD)

With detrusor sphincter dyssynergia (DSD), your bladder muscle and sphincter muscles are not working in coordination. While your detrusor muscle is contracting, trying to push urine out of your body, your sphincters should be relaxing to let the urine flow begin—but instead they continue to contract, preventing the exit of urine. This increases the pressure in your bladder and results in bladder outlet obstruction, with an increased risk of reflux of urine into the ureters and kidney.

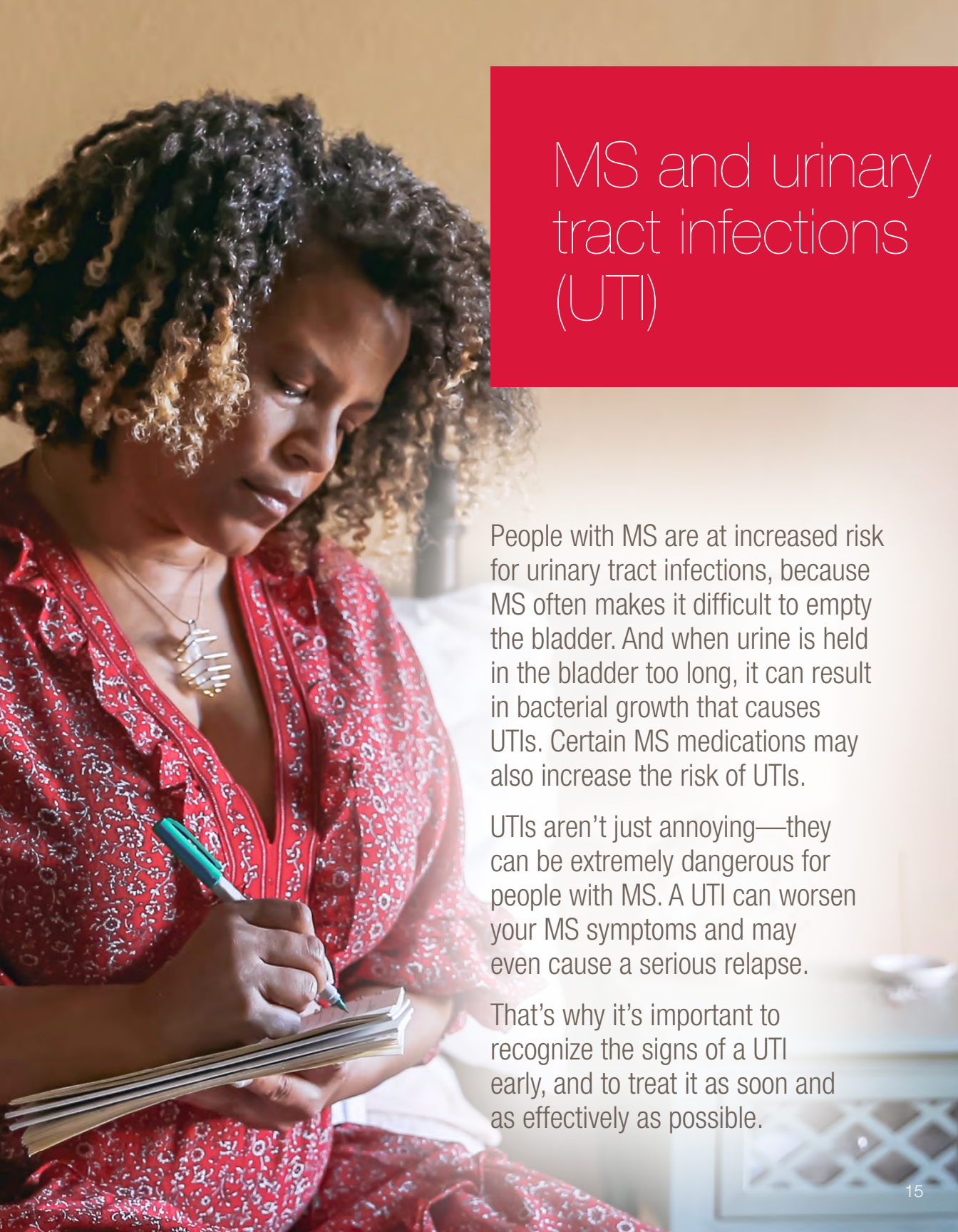
DSD symptoms include UTIs, intermittent urine stream, irregular small volume urine flows, urinary incontinence, and chronic urinary retention. If DSD is left untreated, the increased bladder pressure can be one of the greatest risk factors for long-term damage to your kidneys and bladder. That's why it's so important to discuss urinary tract issues with your care team.

Summary of typical bladder dysfunction types with MS

Overactive bladder
Strong urge to urinate, very frequent visits to the bathroom, possibly only a small amount of urination

Flaccid bladder
Loss of urine drop by drop, residual urine, possible urinary retention, possible unawareness of the bladder filling, possible straining to empty bladder

Detrusor sphincter dyssynergia (DSD)
Urine flow may present as staccato-like stream and result in urinary retention. Inability to initiate urine flow, intermittent urine stream, possible residual urine, or urine loss



MS and urinary tract infections (UTI)

People with MS are at increased risk for urinary tract infections, because MS often makes it difficult to empty the bladder. And when urine is held in the bladder too long, it can result in bacterial growth that causes UTIs. Certain MS medications may also increase the risk of UTIs.

UTIs aren't just annoying—they can be extremely dangerous for people with MS. A UTI can worsen your MS symptoms and may even cause a serious relapse.

That's why it's important to recognize the signs of a UTI early, and to treat it as soon and as effectively as possible.

Possible signs of a urinary tract infection

As with many aspects of MS, symptoms can vary widely from person to person. If you notice any of these conditions, please contact your care team immediately.

- Urinating more often than usual
- Pain and burning sensation when urinating
- Increased spasticity and muscle weakness
- Increased body temperature or fever
- Back pain
- Increased tiredness and exhaustion
- Urine that is milky, flaky, cloudy, or dark in color
- Foul-smelling urine
- Loss of urine (possibly increasing) between normal urinations
- Confusion
- Blood in your urine

Treating and preventing urinary tract infections

Your health care provider may prescribe an appropriate antibiotic for your infection. It is important that you take all doses of the medication as prescribed. Don't stop early just because you start to feel better.

While antibiotics are helpful, it's important to remember that they don't solve the cause of the problem. For people with MS, UTIs are usually caused by residual urine in the bladder. Your care team will work with you to find the best way to prevent residual urine—including increasing water intake, lifestyle changes, and intermittent catheterization.

If you have experienced UTIs, you may qualify to be reimbursed for a no-touch catheter. Contact Hollister Secure Start℠ services to learn more:

Phone: 1.888.808.7456, option 3
Email: ccsecurestart@hollister.com
Website: www.securestartservices.com

Learn more about Hollister Secure Start℠ services on page 28.

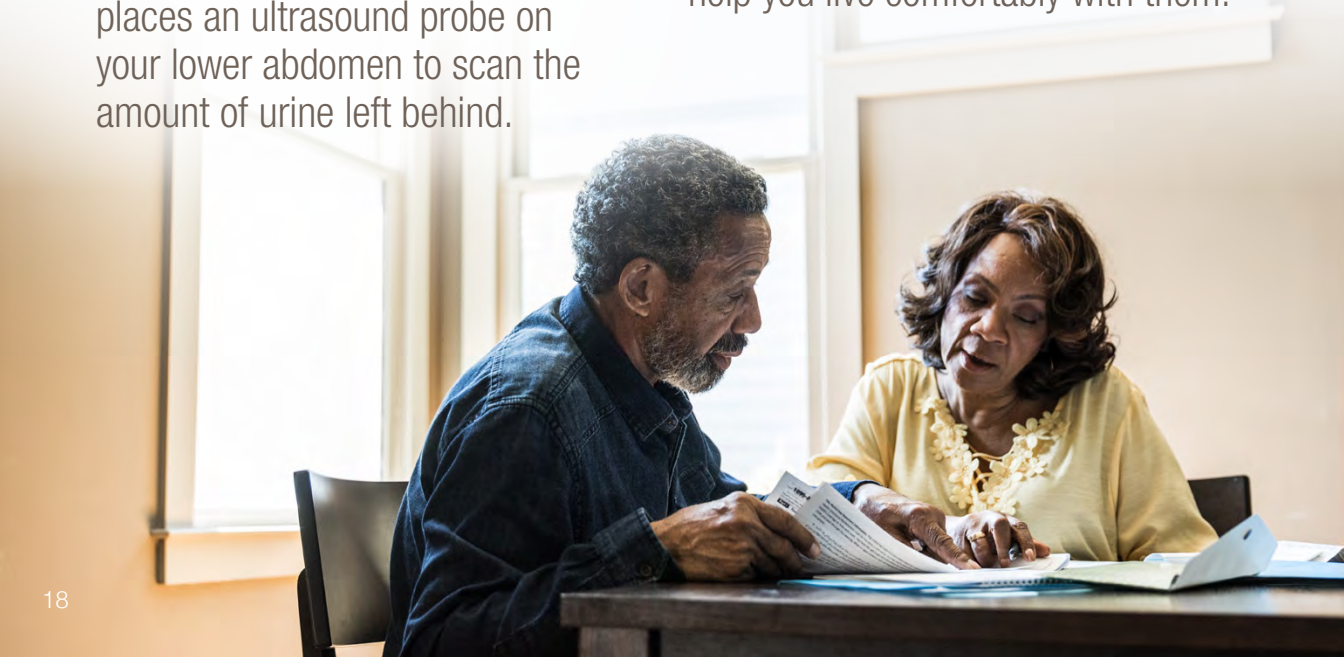
Treating your bladder symptoms

MS is a complicated medical disease that can have a huge impact on your urinary system. Your care team may recommend careful analysis to assess your bladder function, as well as additional testing to determine the best course of treatment.

The first simple test is a bladder scan. You empty your bladder the best you can, and a clinician places an ultrasound probe on your lower abdomen to scan the amount of urine left behind.

Other tests your provider may schedule include urinalysis, urine culture, a uroflow, urodynamics, a renal ultrasound, or a cystoscopy. You may also need to complete a bladder diary, documenting what and how much you drink, and how often and how much you urinate, over a 24-hour period. (You can find an example of a bladder diary at the end of this guide.)

After reviewing the results of the testing, your health care team will work with you to develop a plan to treat your bladder symptoms and help you live comfortably with them.



Lifestyle changes

Your care team may start treating your bladder symptoms with recommendations for simple lifestyle changes.

- **Limiting dietary irritants** such as caffeine, carbonation, acidic foods or fluids, spicy foods, and alcohol that may irritate your bladder.
- **Quitting smoking** because smoking can also irritate your bladder.
- **Keeping your body weight in its normal ranges** could also help your bladder symptoms.
- **Fluid management**—drinking enough, but not too much, fluid—can be extremely helpful. If you don't drink enough, you can become dehydrated, which makes your urine more concentrated and can lead to bladder irritation, more bladder spasms, and increased risk for UTIs. On the other hand, too much fluid can increase your symptoms of frequency, urgency, and nocturia. You should drink between six and eight glasses of fluid daily, and limit fluid in the hours before bedtime.
- **Timed voiding** involves going to the bathroom based on the clock, not how you feel.
- **Double voiding** helps you empty your bladder more completely by standing up after you urinate, then sitting down to try to urinate again.
- **Pelvic floor physical therapy** with a therapist or nurse could help you learn exercises that strengthen the muscles which can improve your bladder function.

If you urinate too often, your provider may prescribe medication such asan antimuscarinic or beta-3 agonist to improve bladder storage. If you do not empty your bladder completely, you may be prescribed an alpha blocker.

If, despite these lifestyle changes and medication, you continue to not empty your bladder completely, your care team may recommend intermittent catheterization to treat your bladder dysfunction. Let's talk about how catheterization works, and how it can improve the quality of your life with MS.

Intermittent catheterization

A catheter is basically a thin tube that can be inserted into a body cavity. You've probably seen people with long-term catheterization, but intermittent catheterization is when a catheter is inserted to empty the bladder and then immediately removed after all of the urine is drained. Properly done, intermittent catheterization removes all the residual urine from your bladder, to help avoid the symptoms described in the previous sections.

For many people with MS, intermittent catheterization replaces conventional urination. Essentially, it's how you empty your bladder.

Just as other people go to the bathroom four to six times a day, you may practice intermittent self-catheterization (ISC) just as frequently—usually in the bathroom. You simply insert a disposable catheter through your urethra and into your bladder for as long as it takes to completely empty your bladder. Then you remove the catheter and throw it away.

With a little practice, you can perform ISC easily, quickly, and almost anywhere. It doesn't have to interfere with your professional, social, or intimate life. The equipment you need is discreet and can be carried inconspicuously in a backpack or purse. Nobody else should notice any difference between you and someone who urinates normally.

"Regular catheterization has significantly reduced my incontinence and thus the fear of unwanted urine leakage. My night's sleep has also become much calmer and therefore more restful. I am particularly pleased that spontaneous excursions are now possible again. With the experience that I have had, I can only advise other people affected to try out what will help them best."
—Helen K.

Choosing the right catheter

Concerned about whether you can really learn ISC? Find it difficult to imagine integrating it into your everyday life? Those responses are perfectly natural. Most people eventually get comfortable with the procedure, however, and finding the right catheterization products is a big help.

If your care team advises you that you'll need to start intermittent catheterization, give yourself time to gather detailed information and even test several products until you're sure which ones work best for you.

Here are the factors you and your care team should consider:

Lubricity

Since you're inserting the catheter into your urethra, it's important that it has good lubricity to avoid pain or injury. Most catheters available today have a hydrophilic coating that helps it slide easily in and out.

Length and diameter

It's also important that you select the right size catheters. Men tend to use catheters that are 16 inches long. Women and children have shorter urethras, so catheters 5 to 8 inches long are usually sufficient. Catheters also come in different diameters, measured in French (Fr) sizes. The smallest diameter is a 1 French (Fr) which is equivalent to 0.33 mm and the most common sizes for adult catheters are between 12 and 16 Fr.

Emptying mode

Some disposable catheters have a urine collection bag attached. Other styles have no bag—you simply hold them over a toilet or collection vessel during catheterization.

Catheter tips

Catheter tips can be straight or curved (Coudé).

Work with your care team to find the best catheterization products for your body and your lifestyle. Ask any questions that occur to you and be willing to try different products. It may take some time, but there is a product that will work for you.

The Hollister Continence Care product portfolio

At Hollister, we serve people with bladder dysfunction and those who care for them, with a commitment to helping empower those who use our products with the independence to maintain a rewarding, dignified life.

We offer three sterile intermittent catheter product lines, each with unique features that make them excellent choices for different people in different situations.

- VaPro™, VaPro Plus™, and VaPro Plus Pocket™ No Touch Intermittent Catheters
- Infyna Chic™ Hydrophilic Intermittent Catheter
- Onli™ Hydrophilic Intermittent Catheter

You can find more information about them—along with a comprehensive portfolio of continence care products and helpful educational resources—at ***hollister.com/continencecare***.

Hollister Secure Start℠ services can help you with product selection or sampling. Learn more on page 28.

Tips for successful intermittent self-catheterization

Self-catheterization is like other things in everyday life—it may not go easily the first few times, and you can be insecure about it until you start to get it right.

Let's look at some helpful suggestions that can make learning ISC easier for you, as well as some common mistakes to avoid.

But first, a note about hygiene: Since you're introducing a foreign object into your bladder, it's vital to maintain the utmost hygiene. You must not only wash your hands and genitals thoroughly, but also practice contact-free handling with no direct contact between the catheter and your hands or the environment.

"I was diagnosed with MS in 1987. As a result, bladder issues also occurred—a very strong urge to urinate with slight incontinence. If a bathroom wasn't close by, some urine occasionally leaked. Due to the constant question of where the next bathroom was, which also had to be wheelchair-accessible, my radius of activity became more and more limited. I even preferred to stay at home.

When I first heard of ISC, I was initially very concerned. Pushing an object through my penis into my body was a very frightening idea. But ISC has made me freer, more independent and more mobile. For me, this means a clear improvement in my quality of life."
—Steve B.

Starting out

Remember, no one is good at ISC right away. Here's a step-by-step process that helps many MS patients get comfortable with the procedure:

1. A healthcare professional will train you in self-catheterization and help you select suitable equipment and the necessary aids, based on your individual abilities and needs.
2. The nurse or medical assistant will do the catheterization with you.
3. Little by little, you'll take on more and more parts of the procedure under the nurse's or medical assistant's supervision.
4. Over time, you might also want to try practicing ISC in different locations and in different positions.
5. Together with your nurse or medical assistant, you might work out a hygiene checklist to take home. You'd use it daily at first and keep checking it regularly as you gain experience.
6. You could also keep a urination or bladder diary, where you'd enter your catheterization intervals and results, and bring it with you to your doctors' appointments. (You can find an example of a bladder diary at the end of this guide.)
7. Be sure to discuss problems and successes with your care team, who can recommend necessary changes.
8. After a while, you may take refresher training if you have challenges and get feedback from your care team on your approach and hygiene.

Seeing what you're doing

It may seem obvious, but the better you can see what you're doing, the more success you'll have at ISC. Start learning to do ISC in well-lit rooms. Add extra lighting if necessary.

Consider using a mirror, especially at first. There are special mirrors developed for self-catheterization you can strap around your thigh or hook under the toilet seat.

If you have trouble seeing the tip of the catheter, you can choose a product where the tip is visually emphasized. Make sure you have good lighting, too. Some people attach a flashlight to their thigh or use a finger lamp.

Challenging motor skills

Many people with MS, in addition to bladder dysfunction, also have to deal with difficulties in executing fine motor movements—ataxia (uncontrolled, excessive movements) and/or tremors. These coordination disorders can make inserting a catheter more challenging, if not impossible.

You may find ice rubs or local cooling helpful. Cooling your arms can help relieve coordination symptoms for a few minutes, so you can self-catheterize.

There are also a number of useful aids available—an insertion aid for people with severely restricted hand function, a leg spreader for spasticity of the adductor muscles, or even a special holder that keeps pulled-down pants away from the genital area during catheterization.

Your care team can recommend the aids and processes that can help you self-catheterize despite other challenges related to MS.

Indwelling catheterization

For people who are unable to perform self-catheterization themselves, and who don't want to have it done by a relative or a nurse, an indwelling catheter may be an option for urine drainage.

Options for indwelling catheterization include a suprapubic catheter, a Foley catheter, and a Mitrofanoff procedure. Your provider can share more details about these options.

Significant improvement is possible

Multiple sclerosis is still not a curable disease, and its symptoms cannot be completely eliminated. But they can be treated. There are now many treatment approaches for bladder dysfunction, so in most cases you can achieve significant improvement.

You can regain control of your bladder. You can prevent many of the complications associated with bladder dysfunction.

First, though, you need the courage and willingness to talk about it. Of course, it's not easy to talk about such a sensitive and intimate subject—even doctors and clinicians can hesitate to ask about them. That's why it's so important for you to seek medical advice about any bladder issues you notice. Talking about your bladder is the first step toward treatment that can vastly improve your quality of life.

Come prepared to your office visit. Spend time at home writing down any questions or concerns you may have. List any new symptoms, when they started, and how severe they are. Bring a list of all of your medications with the correct dose of each of them. That way you won't forget to share your information.

MS and bladder dysfunction may change certain aspects of your life, but your care team can help you enjoy an active, comfortable lifestyle for years to come.

"With the decision to switch to ISC, my everyday life became noticeably easier because my bladder issues were reduced significantly. I have to catheterize around 10 times a day, so relatively often. In addition, my bladder is treated with Botox. With the combination of these measures, however, I live much more comfortably than before. My catheter is easy to use and if there is no garbage can nearby, I can be sure that no liquid will leak if I have to plug it in again until it is disposed of. And its external appearance looks more like a cosmetic utensil than a medical product."
—Kathy G.

Hollister Secure Start℠ services—free, personalized support

Hollister Secure Start℠ services offer free customized support for you as a catheter user, regardless of the brand of product you use. This support includes:

- **Products:** Helping you find the continence care products that best fit your needs based on your prescription.
- **Education:** Helping you and your loved ones navigate the latest lifestyle, product, and clinical information so you can live a fulfilling lifestyle
- **Access to nurses:** Making nurses available to answer questions related to product usage (though your health care professional should always be your source of medical information)
- **Connections:** Helping you find organizations with the people, knowledge, and tools to help you live the life you want to live

Based on your insurance plan, we can explain your options and help you determine whether any catheter product, regardless of brand, is covered, as well as the allowable quantities. Our reimbursement specialists can also answer your questions concerning product reimbursement.

Contact Us to Learn More:

Phone: 1.888.808.7456, option 3
Email: ccsecurestart@hollister.com
Website: www.securestartservices.com

Glossary

Backstop: A component of some catheters that prevents urine from flowing back from the urine bag into the bladder.

Bladder: A hollow organ with a muscle wall that stores and voids urine. A hollow, muscular organ whose main function is to store urine and empty urine at intermittent intervals.

Bladder control: The ability to start and stop urination.

Bladder neck: The transition of the bladder into the urethra; also, the location of the internal sphincter muscle.

Bladder voiding: Urination. The process of moving the urine out of the body through the urethra.

Catheter: A thin tube that can be inserted into a body cavity like the bladder.

Catheterization: The process of inserting a sterile tube into the bladder to empty the urine collected in the bladder.

Clean intermittent catheterization: A procedure in which the hands and genital areas are cleaned, not disinfected.

Continence: The ability to control bowel defecation and bladder voiding emptying at will—to hold back urine and stool so that it can be voided emptied at a self-determined time.

Detrusor sphincter dyssynergia (DSD): A condition in which the bladder muscle and the sphincter muscles are not coordinated.

Detrusor vesicae: The muscles of the bladder.

External sphincter: A muscle that surrounds the urethra and can open to void empty the urinary bladder and close to hold back urine. It can be controlled consciously.

Flaccid bladder: A condition in which the bladder muscle is working too little or not at all, contracting too weakly to effectively empty the ladder. Also called an atonic bladder.

French (FR): 0.33 mm or 0.013 inches—the unit of measurement for catheter diameter.

Hydrophilic: Sterile liquid in catheter packaging that activate the coating of the catheter and ensure that it can slide. Literally translated as "water-loving."

Incontinence: Inadvertent leakage of urine or stool due to a lack of control of the bladder or rectum.

Indwelling catheter: A catheter inserted for long-term use, as opposed to intermittent catheterization.

Infection: A pathological change triggered by pathogens such as bacteria, virus, or fungi.

Intermittent catheterization: A method of inserting a catheter into the bladder to void empty urine at regular intervals or as needed.

Intermittent self-catheterization (ISC): When a person performs intermittent catheterization on themselves. Inserts a catheter into his/her/their bladder to empty urine at regular intervals or as needed.

Internal sphincter: Part of the muscle in the bladder neck that holds urine in the bladder. It cannot be controlled voluntarily.

Kidneys: Two bean-shaped organs located in the lumbar region to the left and right of the spine. They filter urinary substances and water from the blood to produce urine. The kidneys also secrete hormones that regulate blood pressure and make red blood cells.

Meatus: The opening of the urethra where the urine exits the body.

Medical history: A comprehensive survey of a patient's health situation, including the clarification of existing illnesses, previous health problems, allergies, injuries, medications, and surgical interventions.

Nocturia: Getting up one or more times at night to urinate.

Neurogenic bladder: A bladder dysfunction due to a malfunction or damage of nerve tracts that control the muscles of the bladder and urinary sphincters.

Overactive bladder: Bladder dysfunction characterized by unwanted muscle tension contractions in the urinary bladder before it reaches its capacity limit.

Overflow incontinence: The unwanted leakage of urine when the urinary bladder is overfilled.

Pelvic floor muscles: Several small muscle groups that surround the urethra and anus. They support the pelvic organs and help maintain continence.

Pyelonephritis: Infection of the kidneys, also known as pyelonephritis.

Prostate: A glandular organ in men that lies between the bladder neck and the external sphincter and completely surrounds the urethra.

Protective cap: A component of some catheters that helps maintain sterility of the catheter tip after opening the package.

Protective sleeve: A catheter wrapping that enables contact-free and safe use because the catheter is protected from contamination by germs or bacteria.

Protective tip: A component that protects the catheter from contact with germs and bacteria in the first 15mm of the distal urethra, to reduce the risk of bacteria being transferred into the bladder.

Reflex incontinence: The leakage of urine due to detrusor hyperreflexia and/or involuntary relaxation of the urethral obstruction.

Reflux: The backflow of urine from the bladder into the ureters and kidneys.

Sterile (or aseptic) catheterization: A type of catheterization procedure in which a sterile catheter is placed into the bladder performed under completely sterile conditions including the use of gloves, tweezers, protective jacket, and face mask.

Suprapubic catheter: An indwelling catheter that is placed above the pubic bone through the abdominal wall and into the bladder.

Stress incontinence: The unwanted leakage of urine during physical exertion or strain, e.g., when coughing or sneezing.

Ultrasound: A type of imaging examination in which the shape and position of the urinary organs can be examined.

Ureters: Two muscular tubes that carry urine from the kidneys into the bladder.

Urethra: A tubular connection lined with mucous membrane that conducts urine from the bladder to the outside of the body.

Urge incontinence: The unwanted leakage of urine in connection with the urge to urinate.

Urinary incontinence: A general term for the involuntary leakage of urine.

Urinary tract infection: A general term for inflammation in the urinary tract.

Urine: The product of the urinary substances and excess water filtered out of the blood by the kidneys.

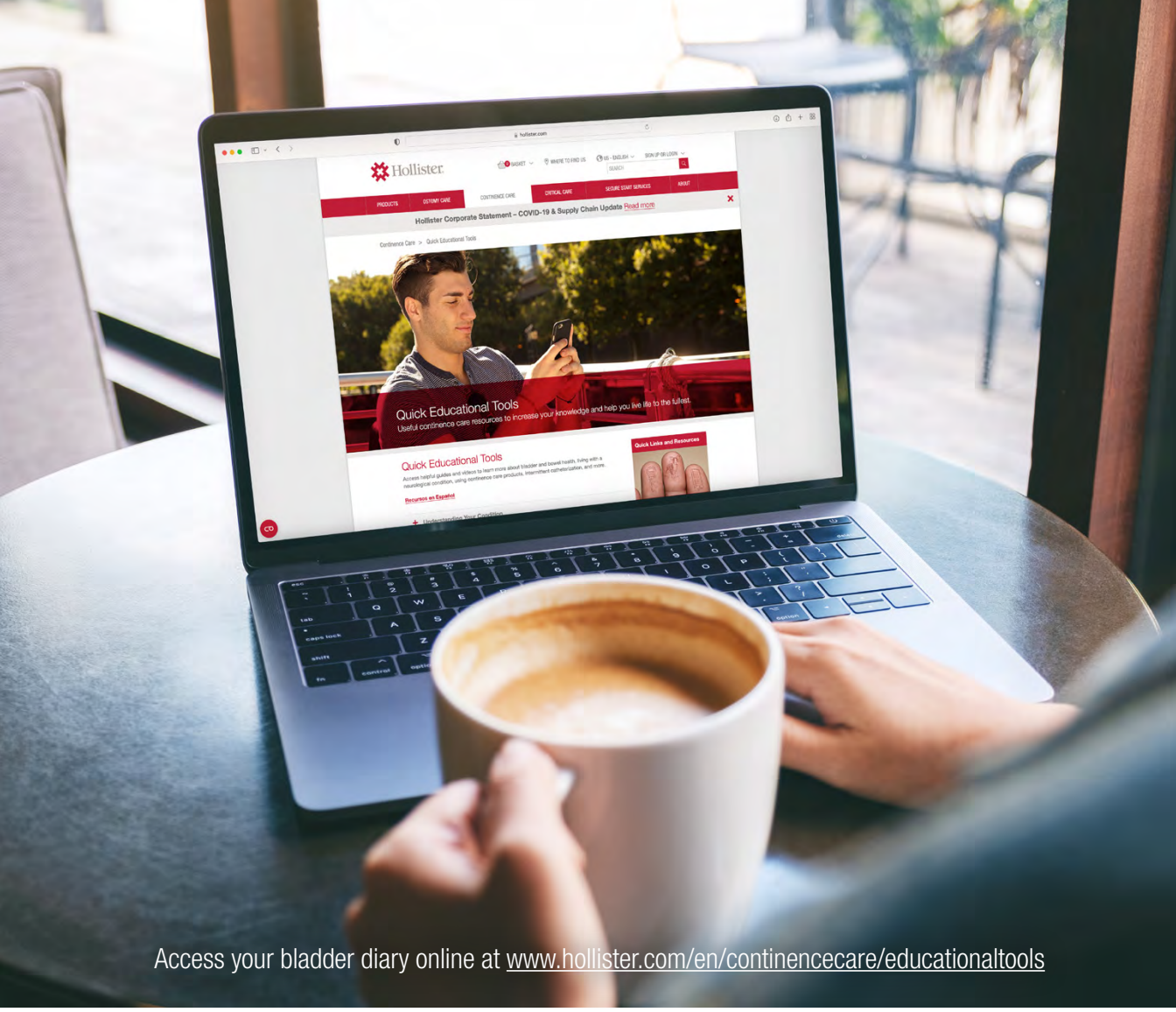
Urination: The process of moving urine out of the body through the urethra.

Weak bladder: A bladder that is too large in volume and overfilling incapable of producing muscle contractions strong enough to empty the urine collected.

Your bladder diary

"I was diagnosed with MS in 1998. My bladder issues started at the end of 2005. At first only the urge to urinate when walking up and down stairs and during pain flare-ups, but soon a constant urge to urinate, and finally incontinence. It had gotten so bad that I didn't want to go anywhere at all. Self-catheterization gave me some quality of life and freedom back."
—Gabrielle R.

Share your story with us by visiting
go.hollister.com/en/share-your-story



Access your bladder diary online at www.hollister.com/en/continencecare/educationaltools

Keeping a bladder diary can be an essential step to help you and your care team determine the best options for treating your bladder dysfunction. It can help you track when and how much fluid you drink, when and how much you urinate, how often you feel the urgency to urinate, and when and how much urine you may leak.

It's best to keep your bladder diary for at least three consecutive days. Here's an example you can use.

	Time 		1. Trips to the bathroom		2. Urge to go?	3. Accidental leaks		
					Yes or No	Between trips to the bathroom		
Date	Time of urination	Time of last drink	Amount of urine			Small amount of drops or less	Damp clothes or slightly wet	Large amount and wet clothes
			How much?	How many times?				

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4. What were you doing at the time?	5. Drinks					6. Notes
	Small cup (3 oz.) 	Medium cup (5 oz.) 	Large cup (6.8 oz.) 	Large Soda (11 oz.) 	Pitcher or more (25 oz.) 	

	Time 		1. Trips to the bathroom		2. Urge to go? Yes or No	3. Accidental leaks Between trips to the bathroom		
Date	Time of urination	Time of last drink	Amount of urine			Small amount of drops or less	Damp clothes or slightly wet	Large amount and wet clothes
			How much?	How many times?				

Access your bladder diary online at

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The testimonials, statements, and opinions presented are applicable to the people depicted. These testimonials are representative of their experience, but the exact results and experience will be unique and individual to each person.

Please make sure to consult with your healthcare professional or urology nurse for further guidance or instruction. Prior to use, be sure to read the Instructions for Use for information regarding Intended Use, Contraindications, Warnings, Precautions, and Instructions. Rx Only.

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