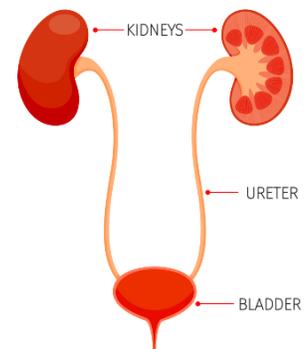


# June 2021 Newsletter



## When Nature's Call Goes Awry

A [recent study](#) found that almost 80 percent of people with MS experience bladder dysfunction. Results show these problems are associated with higher levels of fatigue and disability. Urine is made in the kidneys and travels down two tubes (called ureters) to the bladder. It collects slowly in the bladder, causing it to expand. When approximately eight ounces of fluid have accumulated, nerves in the bladder send signals to the spinal cord which, in turn, messages the brain that the bladder needs to be emptied. Bladder dysfunction in MS happens when nerve signals to the bladder and urinary sphincter are blocked or delayed because of MS lesions in the brain and/or spinal cord.



There are two muscles involved in emptying the bladder. The detrusor muscle surrounds the bladder and contracts to push urine out of the bladder. The flow of urine is controlled by the sphincter muscle at the opening of the bladder, which relaxes to open (allowing urine to leave the body) and contracts to close. There are two main types of bladder dysfunction relating to either the storage of urine or the emptying of urine. Some people experience a combination of the two. In people with MS, problems storing urine are caused by demyelination of the nerves controlling the detrusor muscle, causing it to

involuntarily contract, increasing the pressure in the bladder and decreasing the volume of urine the bladder can hold. This leads to symptoms like urgency (needing to go to the bathroom immediately) and frequency (needing to go to the toilet often) during the day and night (called nocturia). Bladder emptying difficulties occur when nerve impulses controlling the sphincter muscle are interrupted. This can result in hesitancy (difficulty passing urine) and retention (the inability to empty the bladder completely). Leakage of



urine can also occur when the sphincter remains partially open, resulting in involuntary leaks (incontinence). It's important to note that not all bladder issues are caused by nerve damage. Other causes include urinary tract infections, enlarged prostate in men, pregnancy and childbirth in women, abdominal surgery, and caffeine and alcohol consumption.

A number of lifestyle changes can help make bladder issues easier to manage. Some people find it useful to keep a diary of what they eat and drink, medications, when they go to the bathroom and any difficulties they may be experiencing. Keeping track of these things can help determine what, if any, difference diet or treatment changes make in this regard. These records can also be shared with one's healthcare providers. It's important to stay well hydrated. Dehydration leads to more concentrated urine, which can irritate the bladder and create a good environment for infection. On the other hand, drinking too much can make bladder symptoms worse, so getting the right balance is important. It is best to limit or avoid caffeine, alcohol, carbonated beverages, spicy food, and citrus fruit/juices as these can irritate the bladder. In order to avoid being up all night, it may help to limit drinks a couple of hours before bedtime. It's important to maintain a healthy weight and avoid constipation through regular exercise and a healthy, balanced diet. Being overweight can increase the pressure on the bladder and a full bowel can obstruct the flow of urine or affect the bladder's capacity. It may also help to stop smoking as nicotine is a bladder irritant.



While out and about, it may be helpful to plan frequent stops. A number of [mobile phone apps](#) are available to find the nearest bathroom. Using [protection](#), such as pads, can afford confidence, especially in situations where getting to the restroom could be difficult. It

may also be helpful to wear easily removable clothes, for example pants with elastic waistbands and bring a change of clothes, just in case.

Creating a routine can also help to avoid accidents. This involves eating and drinking at regular times and going to the bathroom after every meal or every few hours. [Bladder training](#) is a type of behavioral therapy to regain control over urination. It teaches an individual to hold urine for longer periods of time, allowing them to go longer between

## Training



trips to the bathroom. It also helps to prevent emergencies and accidents. This involves establishing a regular routine for going to the bathroom, gradually increasing the time between visits. Individuals train themselves to resist the first urge to go and wait until their scheduled time. Eventually the time between restroom

visits increases and the urgency to get to one decreases. [Pelvic floor exercises](#) are a type of physical therapy that can be helpful for bladder control. The pelvic floor is a set of muscles that support the pelvic organs, like the bladder. When these muscles become slack it can weaken the bladder sphincter, allowing leakage of urine. A physical therapist can provide guidance on how to properly do this type of exercise.

A catheter is a thin, hollow tube that's used to drain urine from the bladder. [Intermittent self-catheterization](#) allows an individual to empty their bladder as needed. This involves inserting a catheter into the [urethra](#) to drain urine out of the bladder and immediately removing it. Cleanliness is a vital part of this technique in order to avoid introducing infections into the bladder. A [Foley catheter](#) is inserted into the bladder by a healthcare professional and is used to drain urine from the bladder

over a longer period of time. It has an inflatable balloon on the end that is inserted into the bladder which is filled with sterile water to keep it in place. A

[suprapubic catheter](#) (SPC) may be an option if long term catheterization is necessary. This involves surgically

inserting a catheter directly into the bladder through the abdomen. An SPC can typically be left in place for four to eight weeks before it needs to be changed or removed. It can be removed sooner if the individual is able to urinate on their own. Indwelling catheters like the Foley and SPC drain into an external bag, which has a valve at the bottom so it can be emptied.



Nerve stimulation is another technique that is used to help those with bladder dysfunction. [Research](#) shows that percutaneous tibial nerve stimulation is effective for symptoms of spastic or overactive bladder. During this procedure, a very small needle electrode is inserted in the ankle. The electrode transmits a signal to the sacral plexus (the network of nerves that controls the bladder and pelvic floor muscles). Typically, 12 treatment sessions are needed, lasting 30 minutes each. [InterStim®](#) is a small device that is surgically implanted under the skin in the buttock region and stimulates the sacral nerves. It recently received FDA approval for the treatment of overactive bladder, urinary retention and some types of bowel dysfunction.

If non-drug approaches don't provide sufficient relief, a variety of [medications](#) are available to address specific bladder problems. It's important for people with MS to work with their healthcare provider to select the best treatment approach. When oral medications aren't effective, an injection of [botulinum toxin](#) (BOTOX) into the bladder



wall is an option. This acts by stopping nerve messages to the bladder muscles and can freeze their contraction, improving urinary continence. The benefits generally last between 6–12 months after which the procedure can be repeated. It's important to note that the bladder may no longer be able to empty itself after treatment with Botox injections, making the use of a catheter necessary.

Surgery is typically only used as a last resort for bladder dysfunction that does not respond adequately to other treatments. [Culposuspension](#) (lifting the neck of the bladder and stitching it in place) or [sling surgery](#) (placing a sling around the neck of the bladder to support it) can be done to prevent leaks. A [detrusor myectomy](#) involves removing all or part of the detrusor muscle. This reduces the amount of and strength of bladder contractions. A [bladder augmentation](#), or cystoplasty, is a surgical procedure that makes the bladder larger.

Healthy bladder function is essential to overall health and quality of life. Untreated bladder issues can cause worsening of other MS symptoms, challenges with work, home and social activities and loss of independence, self-esteem and self-confidence. Available treatment options are effective for managing most symptoms of bladder dysfunction. It's

important for people with MS to discuss any they may be experiencing with their healthcare providers. Early medical evaluation is important to determine their cause and choose the best management and treatment strategies.

