

Neurogenic Bladder and Voiding Dysfunction

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Neurogenic Bladder

Many patients suffer from bladder and urinary problems as a result of neurologic (nervous system-related) conditions. Multiple sclerosis, Parkinson's disease, spinal cord injury, and neuropathies are just some of the "common" conditions in which bladder problems are a significant component. We commonly refer to bladder symptoms as "neurogenic bladder" when they are associated with a documented neurologic condition.

Symptoms may range from poor sensation to urinate (void), frank urinary retention (the inability to void), all the way to florid urinary incontinence and leakage. Many patients with neurogenic bladder will frequently have recurrent urinary tract infections and be at risk for kidney damage based on the severity of their bladder problem. The bladder acts as a reservoir for urine and is intended to store urine at a very low pressure. In some neurogenic bladder conditions, the "storage pressure" within the bladder is very high and may cause the urine to "back up" into the kidneys above (much like the pipes in your house being clogged). Not every patient will have this serious condition, but frequent doctor visits and proper diagnostic testing (such as urodynamic testing) are necessary to diagnose, treat, and hopefully prevent the complications of neurogenic bladder.

Voiding Dysfunction

Many patients who have similar or identical symptoms to those with neurogenic bladder but who do not have a documented neurologic condition may be classified as having *voiding dysfunction*. Voiding dysfunction simply implies that the process of urination is abnormal. Again, this may manifest as urinary incontinence (leakage), difficulty with initiating urination or difficulty with your stream, or the inability to urinate.

Many medical conditions, although not classified as "neurologic" may have voiding dysfunction as a consequence. Diabetes frequently will be associated with voiding dysfunction and urinary problems. Many patients who have had recent surgery (such as pelvic surgery or back surgery) will also suffer from voiding dysfunction and/or neurogenic bladder surrounding the time of their operation and the post-operative recovery period.

Urodynamic Testing

Patients with neurogenic bladder and voiding dysfunction frequently will require *urodynamic testing*. Urodynamics is a diagnostic "pressure test" of the bladder. A tiny catheter is inserted into the bladder as well as a tiny catheter inserted into the rectum. This measures the pressure within the bladder and the "abdominal cavity." Fluid is slowly instilled into the bladder to diagnose the pressure as the bladder fills as well as the pressure when urinating. This "bladder pressure" determination can be very helpful in accurately diagnosing the severity of neurogenic bladder and voiding dysfunction. In addition, urodynamics may be used to provide a risk assessment of a patient's potential for kidney damage and worsening symptoms over the ensuing years.

Urodynamic testing is done as an outpatient, does not require a hospital stay, and is covered by all major insurance companies as well as Medicare.

It is very helpful to keep a *Bladder Diary* before obtaining a urodynamic study. A bladder diary is a record of patient's urinary habits. You will be asked to measure the urine each time you void and record the volume as well as the time and any associated leakage or problems.

Intermittent Catheterization

Some patients with neurogenic bladder and voiding dysfunction who cannot empty their bladder will require intermittent catheterization. While certain oral medications have been touted to produce bladder emptying, none have been scientifically shown to work. Much like a person with a broken leg or cast walking with a crutch, intermittent catheterization, while not ideal, may provide the necessary means for someone's bladder "to get around."

Performed in a clean and not sterile technique (which means washing the catheter and your hands with warm soapy water before and after), patients are trained in the proper technique for emptying their bladder on a scheduled basis. While there is some risk of urinary infection with intermittent catheterization. The risk is not as great as the potential risk for kidney damage and worsening bladder function if catheterization is not performed.

While many things that are very necessary are at first difficult, with the proper training and persistence (and a good mental attitude), intermittent catheterization can truly improve a patient's quality of life, reduce the risk of further damage and/or kidney failure, and render a person free of indwelling foreign bodies.

Neurogenic bladder and voiding dysfunction are common ailments that occur in patients with various diseases and for a variety of reasons. Proper diagnostic testing and possibly intermittent catheterization may be necessary in order to preserve bladder and kidney function. Rarely surgical procedures to physically enlarge the bladder are necessary to increase the storage capacity of the bladder and improve a patient's symptoms.

Patients' conditions and symptoms are frequently very different, so ask your doctor to outline a specific diagnostic and treatment course for you,