We use the term **Neurogenic Bladder** when one’s urinary problems are due to a brain or nerve condition.

Symptoms may include incontinence, going to the bathroom frequently, getting up to urinate frequently at night, constant urge to urinate or inability to urinate at all.

Many patients are referred to me by their Neurologist or primary care physician for evaluation and treatment of symptoms due to neurologic conditions.

**Causes, Incidence, and Risk Factors**

Several muscles and nerves must work together for your bladder to hold urine until you’re ready to empty it. Nerve messages go back and forth between the brain and the muscles that control bladder emptying. If these nerves are damaged by illness or injury, the muscles may not be able to tighten or relax at the right time.

Disorders of the central nervous system commonly cause neurogenic bladder. This can include:

- Alzheimer's disease
- Birth defects of the spinal cord (meningomyelocele)
- Brain or spinal cord tumors
- Multiple sclerosis
- Parkinson’s disease
- Spinal cord injury
- Stroke recovery

Damage or disorders of the nerves that supply the bladder can also cause this condition. These can include:

- Alcoholic neuropathy (nerve damage due to long-term, heavy alcohol use)
- **Diabetic neuropathy** (nerve damage due to long-term diabetes)
- Nerve damage due to pelvic surgery
- Nerve damage from a herniated disc
Evaluation

Thorough discussion with patients and their caretakers is the single most important “diagnostic test”.

The next step is to obtain a voiding diary and behavioral history.

There are many tests which we may then perform to help us start appropriate treatment. These tests may include:

- Urodynamic Investigation
- Kidney and Bladder Ultrasound
- CT Scan or MRI
- Blood Tests

Treatment

Medications may help manage your symptoms. Your doctor may recommend:

- Medicines that relax the bladder
- Medicines that make certain nerves more active
- Botulinum toxin (Botox)
- Tricyclic antidepressants
- Nerve relaxing medications

Some people may need to use a urinary catheter. This is a thin tube that is inserted into your bladder:

- You may need a catheter to be in place all the time (indwelling catheter)
- You may need a catheter to be placed into your bladder 4 to 6 times a day to keep your bladder from becoming too full (intermittent catheterization)

Sometimes surgery is needed. Surgeries for neurogenic bladder include:

- Artificial sphincter
- Electrical device implanted near the bladder nerves, to stimulate the bladder muscles
- Sling surgery
- Creation of an opening (stoma) through which urine flows out into a special pouch (this is called urinary diversion)

Complications

- Chronic urine leakage can cause skin breakdown and pressure sores
- Kidney damage may occur if the bladder becomes too full, causing pressure to build up in the tubes leading to the kidneys and in the kidneys themselves
- Urinary tract infections
For further information, please see the following link:

http://emedicine.medscape.com/article/453539-overview#a1