URINARY FREQUENCY, URGENCY AND OVERACTIVE BLADDER

Symptoms
- **Frequency:** the need to urinate more often
- **Urgency:** the need to urinate as soon as one gets the urge
- **Incontinence:** uncontrolled loss of urine

**Causes:** Urinary tract infections, hormone changes, vaginal birth, muscular relaxation, excess weight, aging, nerve damage, radiation, pelvic surgery, trauma and unknown

**What is a normal number of times to urinate during the day?** Seven, every three to four hours. This depends on fluid intake, medications, medical problems and amount one sleeps.

**What is a normal amount of daily fluid intake?** 64 ounces (two liters)

**Diagnosis**
- Medical history and physical exam
- Urine tests to check for infection or other problems
- Bladder scan to see how well the bladder empties
- Questionnaire
- Bladder diary
- In some cases: cystoscopy (look inside the bladder with a camera), ultrasound of the kidneys and bladder, urodynamics (test to learn more about your bladder pressure during filling and urinating)

**Treatment:** Urinary urgency/frequency is generally not life-threatening but can decrease your quality of life. The goal of treatment is to decrease symptoms. Symptoms may not go away entirely. It often takes trials of several treatments before symptoms improve. Therapy may be long-term and may have side effects.

**First line: Behavioral therapy**
- **Fluids:** Normal intake is 64 ounces (two liters) daily
- **Avoid bladder irritants:** Trial of Frequency/Urgency Diet, which includes caffeine, alcohol, spicy foods, acidic foods, carbonated beverages. Quit smoking.
- **Weight loss:** Weight loss of 8% decreases incontinence episodes in half.
- **Bladder retraining:** Training your bladder to hold urine for longer and learning how to suppress the urge
Pelvic Floor Physical Therapy: Four to six week course of therapy to identify and strengthen pelvic floor muscles. This often includes electrical stimulation of the muscles.

Second line: Medications (most take at least 4-6 weeks to see improvement)

- **Anticholinergics**: oxybutynin (Ditropan, Oxytrol, Gelnique, Oxytrol patch), tolerodine (Detrol), solfenacin (Vesicare), darifenacin (Enablex), trospium (Sanctura), fesoterodine (Toviaz)
  
  **Side effects may include**: dry mouth, constipation, dry eyes, blurred vision, stomach upset, urinary tract infection, incomplete bladder emptying and confusion

  **Reasons you cannot take anticholinergic medications**: narrow angle glaucoma, slow stomach emptying, incomplete bladder emptying. Potassium pills need to be changed to liquid form to prevent high potassium levels.

- **Beta 3 adrenergic agonist**: Myrbetriq (mirabegron)
  
  **Side effects may include**: high blood pressure, nose and throat congestion and urinary tract infection

Third line: Procedures

**Botox® bladder injections**
A camera is placed in the bladder and Botox® is injected into several places. This is done in the office or in the operating room. You must be able to return to the office periodically to check how well the bladder is emptying. If the bladder doesn’t empty well, you must be able and willing to place a catheter in the bladder every six hours at home until the bladder muscle recovers.

The treatment lasts for three to nine months, then repeat treatment is often needed.

**Risks**: urinary tract infection, incomplete bladder emptying with the need to place in a catheter in the bladder every six hours

**Sacral neuromodulation (InterStim®)**
A generator that sends signals to the nerves that control the bladder. After a trial in the office, the generator is implanted in the body during a same day surgery. The device must be adjusted and the battery replaced periodically.

**Risks**: need for additional surgery (over 30% chance), pain at signal site, wire movement, infection, shock

**Peripheral tibial nerve stimulation (Urgent PC®)**
Small needle inserted above the ankle to send signals to nerves that control the bladder. It involves a 30 minute office procedure once a week for 12 weeks then typically monthly treatments. Check with your insurance company if it is covered.