# URINARY INCONTINENCE

#### STRESS INCONTINENCE

**Stress urinary incontinence (SUI)** is the involuntary loss of urine during physical activities such as coughing, sneezing, laughing, and exercising. There are two types of conditions that results in stress urinary incontinence, hypermobility of the urethra and intrinsic sphincter deficiency.

The first condition that can result in SUI is called hypermobility of the urethra. This means that the tube that carries urine out of the bladder is overly mobile. Hypermobility occurs when the normal pelvic floor muscles, the muscles that support the bladder, can no longer provide necessary support to the urethra and the bladder neck. When pressure or stress from coughing, sneezing, exercising or laughing is applied, the neck of the bladder drops downward causing the involuntary leakage of urine.

The second cause of SUI is called intrinsic sphincter deficiency. Intrinsic sphincter deficiency means that the tiny muscles responsible for keeping the urethra closed have become weak and are no longer able to keep the urethra closed when pressure from coughing, sneezing, laughing, or heavy lifting is applied to the bladder.

## **Testing for SUI:**

- A physical exam: The doctor can measure movement of the urethra during an office visit
- **Urodynamics:** A bladder test that measures stress urinary incontinence and the strength of the urethral muscles

## **Treatments for SUI:**

- **Physical therapy:** Physical therapy will help strengthen pelvic muscles. You may be instructed to do exercises such as kegels.
- **Pessary:** A device inserted into the vagina to add extra pelvic support and possibly help compress the urethra, depending on the type of pessary
- **Bulking agents:** A substance is injected around the muscles of the urethra to bulk the tissue and help keep the urethra in a closed position during activities that cause SUI.
- ThermiVa: A radiofrequency treatment that delivers a gentle heat to the vaginal walls underneath the bladder that increases collagen to increase support of the urethra.
- Surgery: A procedure where a supportive sling is inserted under the urethra.

#### **URGE INCONTINENCE**

Urge urinary incontinence (UUI) is the leakage of urine preceded by a strong and sudden urge to urinate.

UUI is caused by overactive bladder muscles that contract too often or problems with the nerves that send signals to the bladder.

## **Testing for UUI:**

- A physical exam, urinalysis, and urine culture
- **A bladder diary:** A bladder diary to track the amount of fluids that you drink and urinate, and how often you void and leak.
- **Urodynamics:** A bladder test to record any bladder muscle contractions.
- Cystoscopy: An inspection of the inside of the bladder to rule out other causes of UUI.

### **Treatments for UUI:**

- **Behavioral interventions:** Reduction of fluids or timing of fluids, timed voiding, pelvic muscle retraining, avoidance of caffeine.
- **Medications:** Medications to relax the bladder including tolterodine (Detrol), fesoteridine (Toviaz), oxybutynin (Ditropan), oxybutynin skin patches (Oxytrol), trospium (Sanctura), solifenacin (Vesicare), darfenacin (Enablex), and mirabegron (Myrbetriq). Some common side effects of some of these medications (not Myrbetriq), include constipation, dry eyes, and dry mouth.
- **Posterior tibial nerve stimulation (PTNS):** A treatment using an acupuncture needle applied near the ankle to adjust signals of the overactive bladder nerves. There are 12 weekly treatments, then ongoing periodic treatments for a lasting effect.
- InterStim (sacral nerve stimulation): Sacral nerve stimulation helps to adjust the signals of the overactive bladder nerves to allow for more normal urinary urge and voiding. An office test can determine if you are a good candidate for the permanent small implant that goes under the skin in the gluteal region.

• <b>Botox:</b> A small dose of botox is injected into the bladder muscle to relax the muscle and reduce spasm. Side effects may include urine retention.
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