

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 result 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 is beneficial to learn how to breathe, proper posture, and proper pelvic floor contraction technique (Kegel).
- **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.
- **EMSELLA:** High frequency electromagnetic stimulation of pelvic floor resulting in 10,000 pelvic contractions and rebuilding of the pelvic floor.
- **Surgery:** A procedure where a supportive sling is inserted under the urethra.

COST OF INCONTINENCE

Annual direct cost of incontinence is \$16 billion dollars, which is greater than the annual direct costs for breast, ovarian, cervical, and uterine cancers combined.

The cost of incontinence includes, pads, laundry, loss of quality of life, reduced exercise, pelvic physical therapy, and surgery.

Women are willing to pay about \$900 per year for 100% improvement in incontinence per year in review study. Willingness to pay for treatment depends on age, income, and impact of incontinence on quality of life.

COST OF TREATMENT

Pads and laundry per year **\$1000-1500 per year**

Pessary (for SUI only) \$70/pessary + office visits \$25-50 **\$270 per year**
Must be able to take in and out on own or have pelvic exam every 3 months for life
50% improvement

Medications per year for UUI \$25-300/month **\$300-3600 per year**
80% of patients stop medications in 1st year due to cost, side effects, or lack of efficacy

Pelvic floor physical therapy 6-12 weeks co-pay \$25-75 **\$900 per year**
Must do pelvic exercises at home for life- about 50% improvement

Bulking agents (for ISD only) deductible cost of procedure 3x per year
60-70% reduction in appropriately treated women- risks of UTI, pain, retention

ThermiVa \$3600 for initial 3 **\$1000 per year**
65-90% reduction in leakage, improvement in sexual satisfaction, improved dryness and orgasm

EMSELLA \$1800 for initial 6 **\$150 per session for life**
Non-invasive and corrects muscles weakness, can be done early to prevent issues

Surgery- Sling deductible cost of procedure
Outpatient surgery, 1-3% risk of mesh exposure, 1-10% risk of retention, risk of reoperation
85-90% reduction in leakage