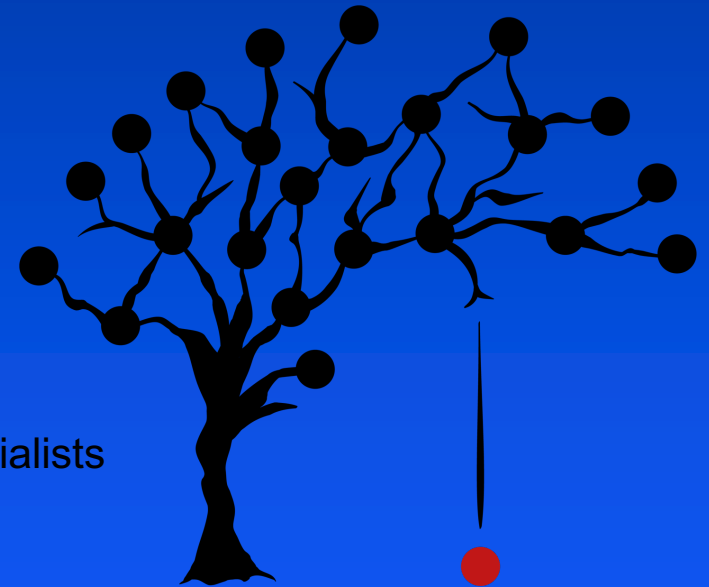


Bladder Matters: Strategies for Urinary Incontinence and Vaginal Prolapse Management



Amy McKerrow, MD
Logan Health Urology Specialists
Kalispell, Montana
January 30, 2026



GRAVITY

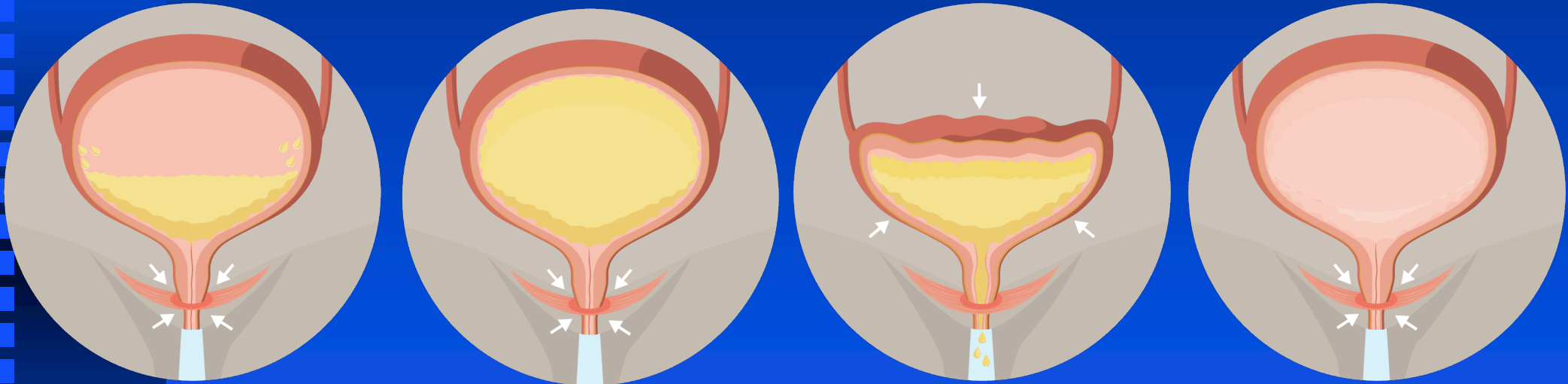
Urinary Incontinence (2023 data)

- Prevalence: 95 million Americans
 - ◆ females > males
 - ◆ homebound and institutionalized ~ 50%
- Stress: 24-45% women >30 years of age
- Urge
 - ◆ 9% women 40-44 years
 - ◆ 35% women >75 years
 - ◆ 17-25% men >75 years
- Risk factors
 - ◆ Age, BMI >35, vaginal births, anxiety/depression
 - ◆ Diabetes increases risk of urge incontinence

Reversible Causes of Incontinence

- D** delirium
- I** infection
- A** atrophic vaginitis
- P** pharmaceuticals
- P** psychological
- E** endocrine
- R** restricted mobility
- S** stool impaction

How does the bladder work?



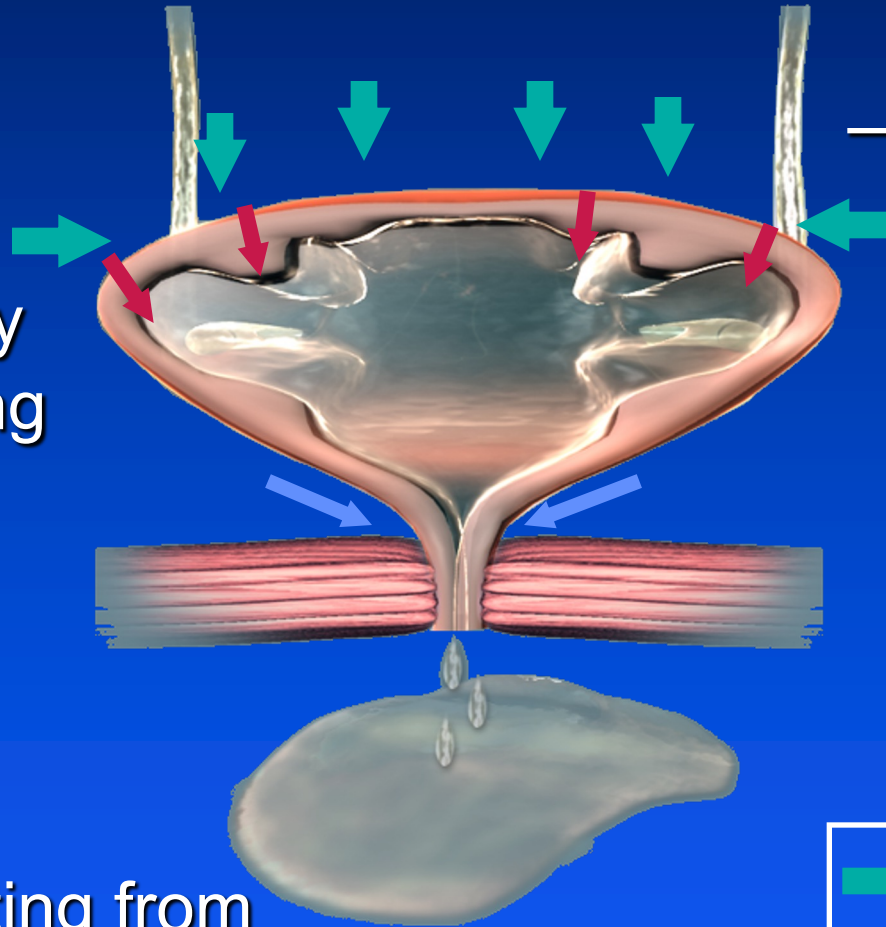
Bladder fills
from the kidney

Full bladder
contracts/squeezes, urinary
sphincter opens, and urine
exits the body

Empty bladder relaxes,
stops contracting and
urinary sphincter closes

Urge

- ◆ urine loss accompanied by urgency resulting from abnormal bladder contractions

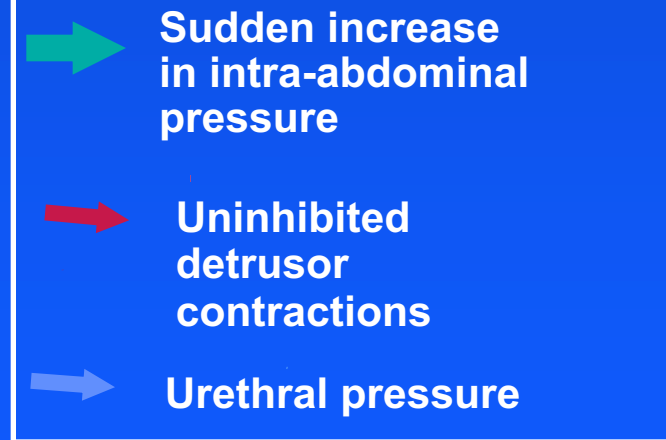


Mixed symptoms

- ◆ combination of stress and urge incontinence

Stress

- ◆ urine loss resulting from sudden increased intra-abdominal pressure (eg, laugh, cough, sneeze)



When left untreated incontinence can lead to:

- Limited sexual function¹
- Social isolation¹
- Depression¹
- Decreased physical activity¹
- Falls with fractures²
- Skin infection and increased pressure ulcers³
- Sleep disturbance and fatigue⁶

\$20B

significant economic impact –
cost of incontinence supplies and
management.⁴

22%

More likely
to suffer from depression.⁵

“Incontinence steals your life one activity at a time.”

1. Khandelwal C, Kistler C. Diagnosis of urinary incontinence. *Am Fam Physician*. 2013 Apr 15;87(8):543-50. PMID: 23668444.

2. Treatments overview for Bladder Control; Voicese for PFD; www.voicesforpfd.org/bladder-control/treatments/; 2017; accessed 5.25.18.

3. Gray M. Incontinence-related skin damage: essential knowledge. *Ostomy Wound Manage*. 2007 Dec;53(12):28-32. PMID: 18184980.

4. Gorina Y, Schappert S, Bercovitz A, Elgaddal N, Kramarow E. Prevalence of incontinence among older americans. *Vital Health Stat* 3. 2014 Jun;(36):1-33. PMID: 24964267.

5. Mazi B, Kaddour O, Al-Badr A. Depression symptoms in women with pelvic floor dysfunction: a case-control study. *Int J Womens Health*. 2019 Feb 22;11:143-148. doi: 10.2147/IJWH.S187417. PMID: 30863189; PMCID: PMC6390859.

6. Ge TJ, Vetter J, Lai HH. Sleep Disturbance and Fatigue Are Associated With More Severe Urinary Incontinence and Overactive Bladder Symptoms. *Urology*. 2017 Nov;109:67-73. doi: 10.1016/j.urology.2017.07.039. Epub 2017 Aug 4. PMID: 28826875; PMCID: PMC5669629.

Treatment Options for Overactive Bladder

Non-Surgical

- Lifestyle changes
- Medications
- Bladder Botox
- Percutaneous Tibial Nerve stimulation (PTNS)

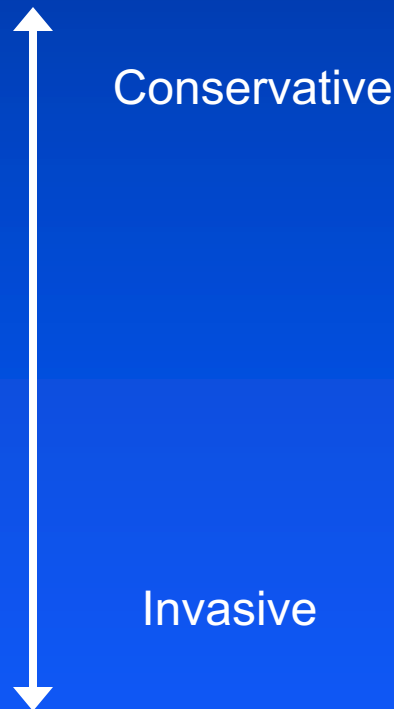
Surgical

- E coin
- Sacral neuromodulation
- Newer devices



Treatment of Urinary Incontinence

URGE



- Bladder Retraining
 - ◆ voiding at specific intervals
 - ◆ controlling urges
- Weight Loss
- Physical Therapy/
Biofeedback
 - ◆ help identify and train pelvic muscles
 - ◆ success range up to 81%
- Bladder Irritants
 - ◆ Etoh, Caffeine, Carbonation

OTC Meds



Amazon 72 caps \$23.99
 \$0.33/cap
 2-3 pill/day
 \$1.00/day



Amazon 8 patches \$26.65
 \$3.33/patch
 Change patch q 3-4/d
 \$1.00/day

Supplement Facts

Serving Size: One (1) Capsule

	Amount Per Serving	% Daily Value
Sodium	10mg	<1%
Go-Less® Proprietary Blend	300mg	
Pumpkin (<i>Cucurbita pepo</i>) Seed Extract		†
Soy (<i>Glycine max</i>) Germ Extract		†

†Daily Value not established.

Other ingredients: capsule (gelatin, titanium dioxide [color], caramel [color], maltodextrin, dicalcium phosphate, microcrystalline cellulose, magnesium stearate).

Contains: Soy

FROM THE #1 PHARMACIST RECOMMENDED BRAND*

*Based on the 2022 Pharmacy Times OTC Survey (including Urinary Pain Relief and Bladder categories).

DAIRY FREE, GLUTEN FREE, NO ARTIFICIAL DYES, NO SYNTHETIC COLORS

Drug Facts

Active ingredient (in each patch [transdermal system]) Purpose
 Oxybutynin 3.9 mg/day Overactive bladder treatment

Use

- treats overactive bladder in women
- you may be suffering from overactive bladder if you have had 2 or more of the following symptoms for at least 3 months:
 - urinary frequency (the need to urinate more often than usual, typically more than 8 times in 24 hours)
 - urinary urgency (a strong need to urinate right away)
 - urge incontinence (leaking or wetting yourself if you cannot control the urge to urinate)
 - non-drug therapies may also help you (see the consumer information leaflet inside the package)

Warnings

For external use only.

Frequent urination can also be caused by:

- urinary tract infections (UTI)
- diabetes
- early pregnancy
- other more serious conditions

 If you think you might have one of these conditions, it is important to see your doctor before use.

Sleepiness, dizziness, and blurry vision may occur. Do not drive or operate machinery until you know how the patch affects you.

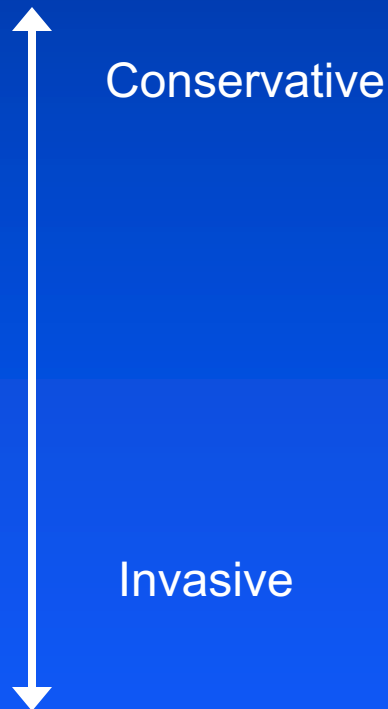
Do not use if you:

- have any of these symptoms, which could be the sign of a UTI or other serious condition. See your doctor as soon as possible if you have:
 - pain or burning when urinating. These symptoms may also be accompanied by a fever or chills.
 - blood in your urine.
 - unexplained lower back or side pain.
 - urine that is cloudy, or foul-smelling.
- are male. Your symptoms may be due to a more serious condition.
- are under the age of 18. It is not known if it works or is safe in children.
- only experience accidental urine loss when you cough, sneeze or laugh, you may have stress incontinence. This product will not work for that condition.

LIFT FLAP

Treatment of Urinary Incontinence

URGE



Drug Therapy

■ Anticholinergics

- ◆ Dry mouth/eyes, constipation

■ Dementia

- ◆ ~20% increased relative risk of dementia

■ In order increasing CNS penetration

- ◆ Sanctura (20 mg BID vs 60 mg XR)
- ◆ Toviaz (4-8 mg/day)
- ◆ Enablex (7.5-15mg/day)
- ◆ Vesicare (5-10 mg/day)
- ◆ Detrol (2-4 mg LA /day)
- ◆ Oxybutinin (5 mg/QID or 5-15 mg XL/daily)

Treatment of Urinary Incontinence

URGE

Drug Therapy

■ Beta 3 Agonists

◆ Mybetriq (Mirabegron)

◆ 25-50 mg

◆ Side effects: HTN, HA

◆ Gemtesa (Vibegron)

◆ 75 mg

◆ Side effects: no ↑ BP, nausea, HA

■ Cost

◆ Patient Assistance Programs

◆ Good RX

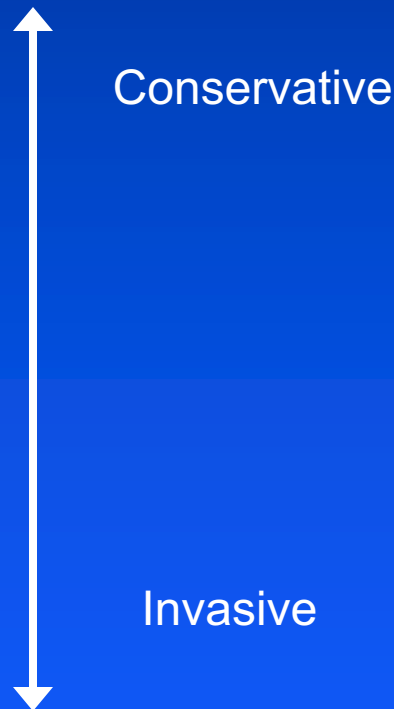
Conservative

Invasive



Treatment of Urinary Incontinence

URGE



■ Drug Therapy

- ◆ Tricyclic Antidepressants
 - ◆ Imprimine
 - ◆ Amitriptyline
- } 25mg 1-4x/day
- ◆ Systemic Estrogen
 - ◆ controversial
 - ◆ WHI - 2x increased risk of incontinence, oral estrogen +/- prog
 - ◆ Local estrogen
 - ◆ Estrace cream (2g/day)
 - ◆ Vagifem tablet (1/day)
 - ◆ Estring (6-9 µg estradol/day - 3 mo)
 - ◆ Compounded products

Cost of Estrogen

■ Estrace cream

- ◆ Mark Cuban Cost Plus Drugs
- ◆ 42.5 g tube \$13.21
 - ◆ 3 tubes \$29.00

■ Vagifem/Estradiol tablet

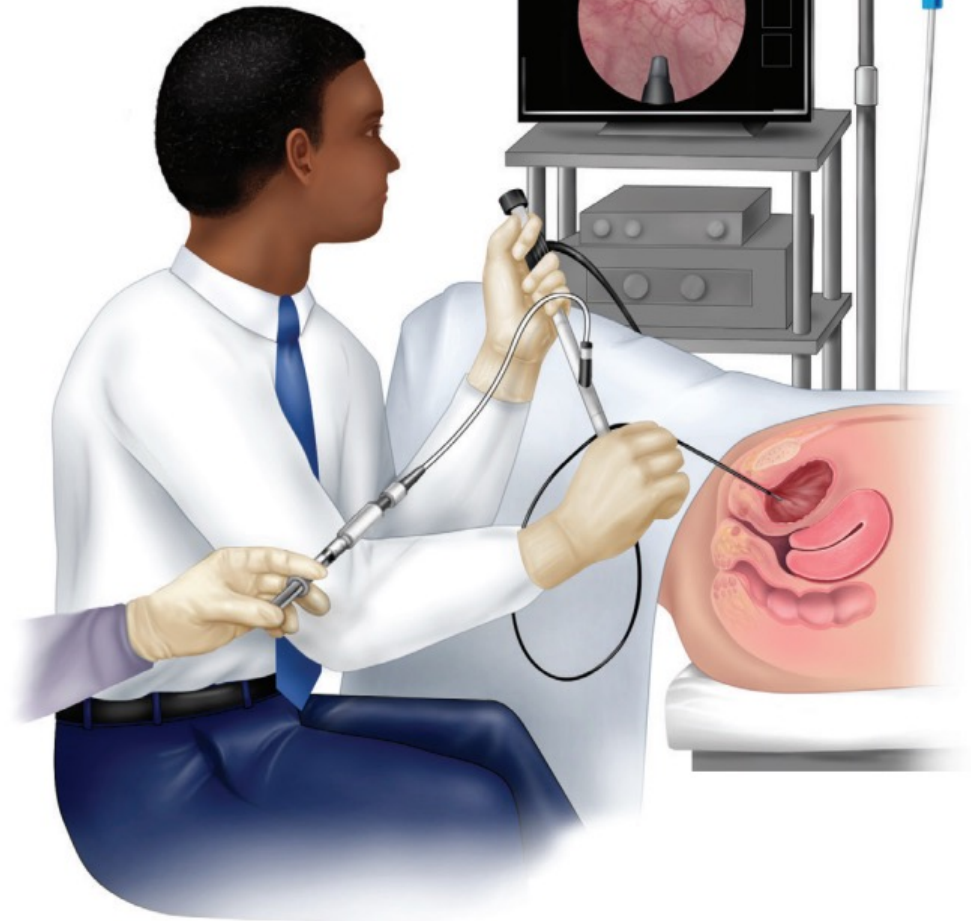
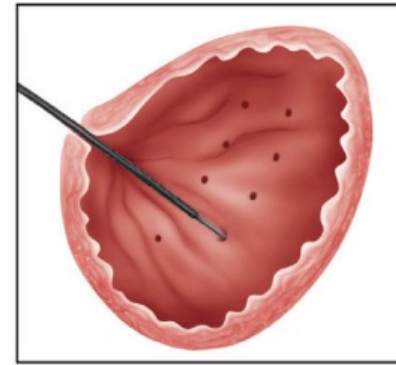
- ◆ Mark Cuban Cost Plus Drugs
 - ◆ 8 tablets \$91.25

■ Estrin – no generic \$650

- ◆ Coupons \$250, Cost Plus \$550

Bladder Botox

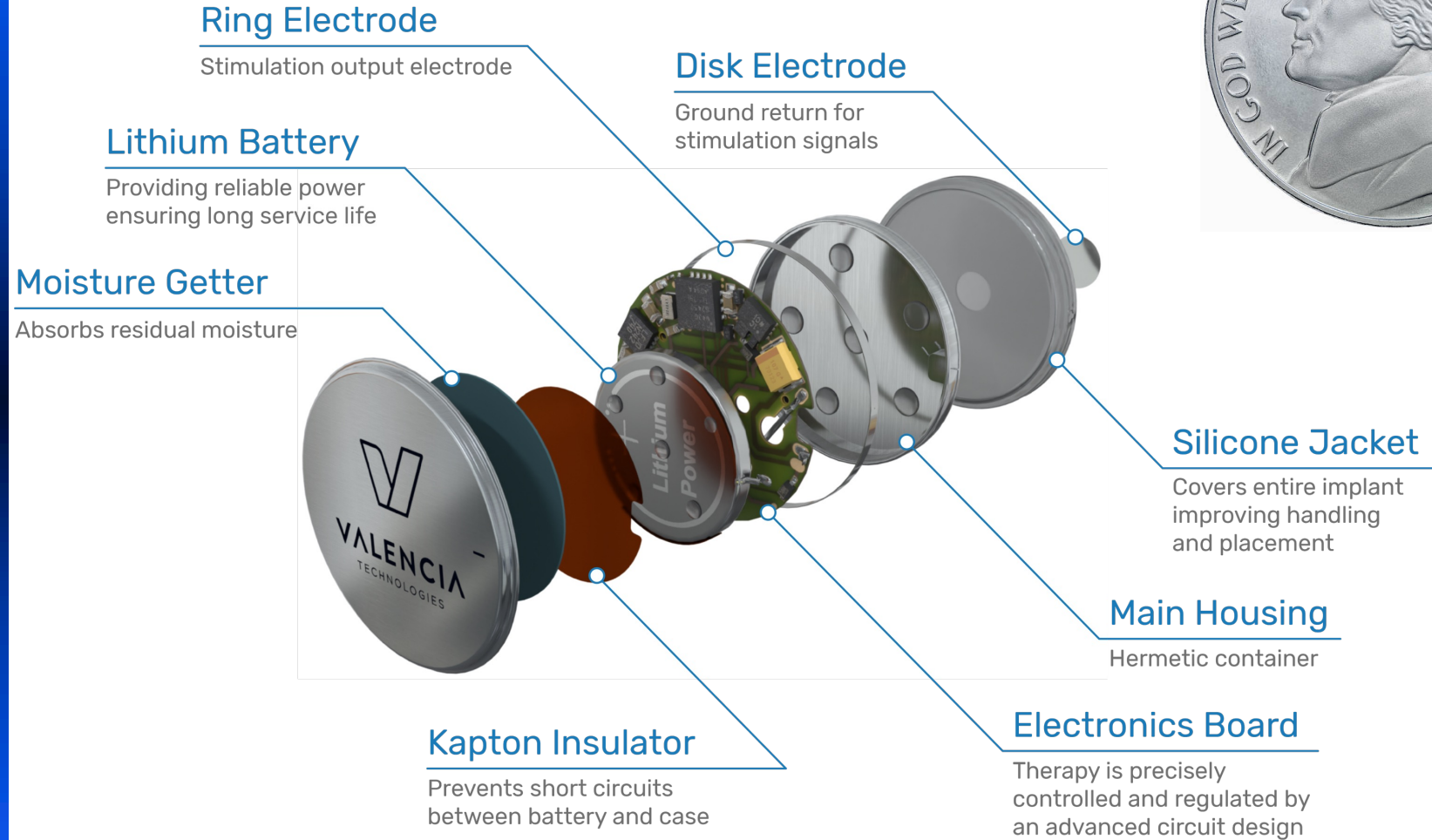
Botox
Treatment for
Overactive
Bladder



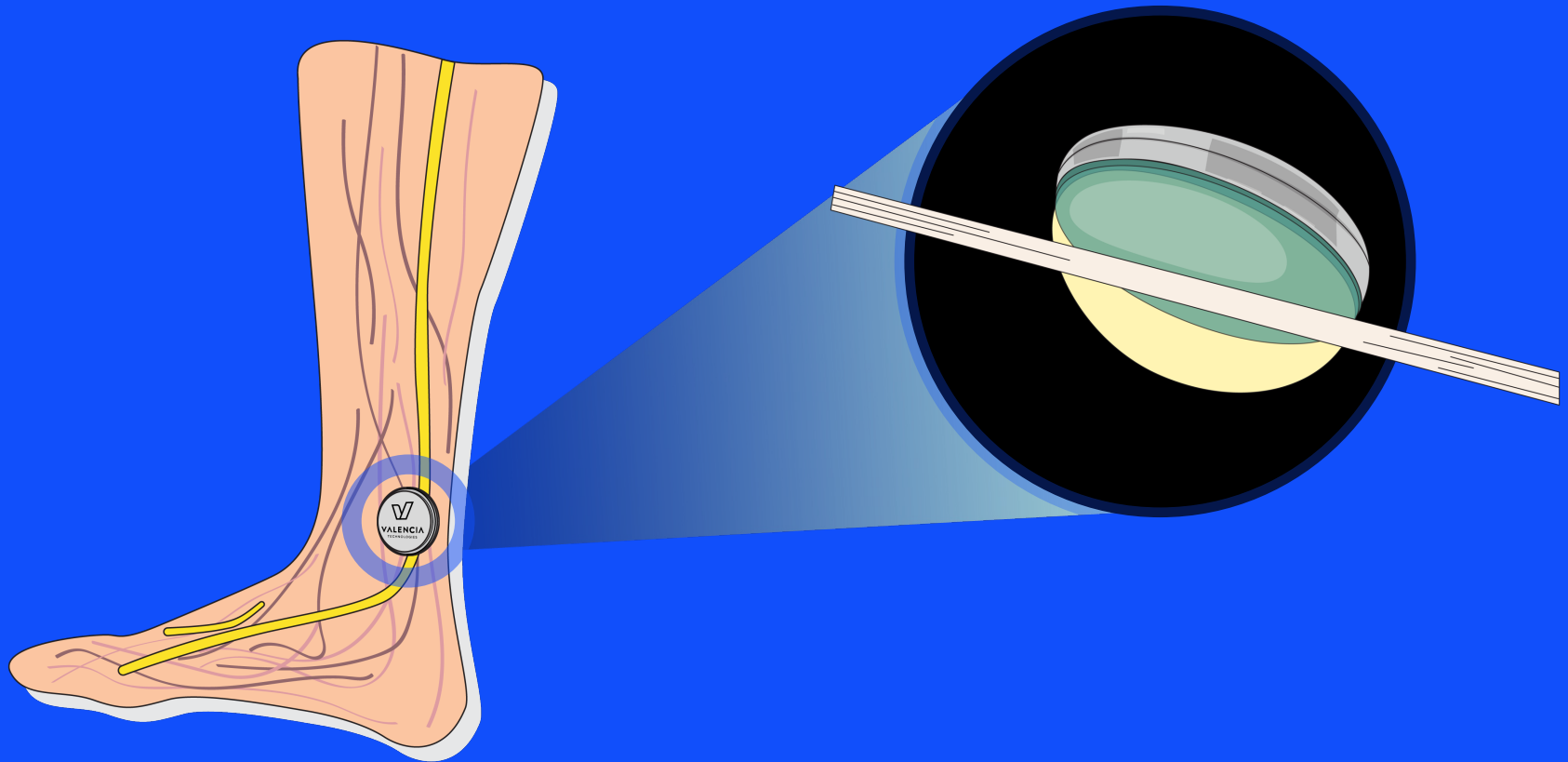
Percutaneous Tibial Nerve Stimulation PTNS



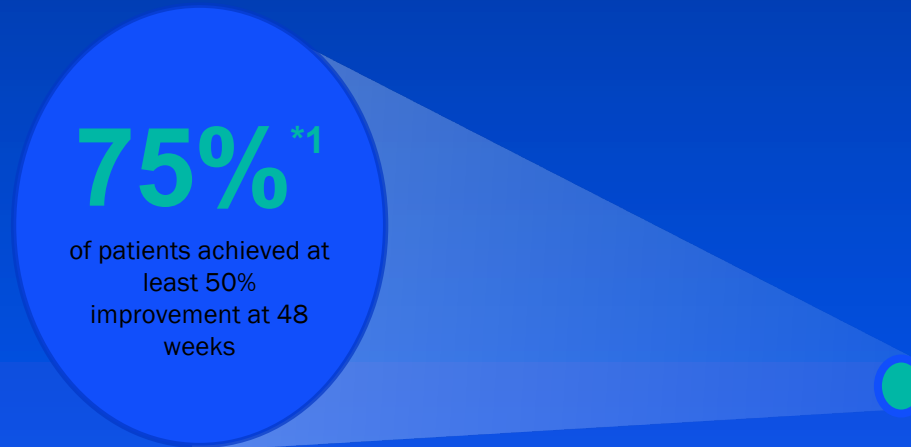
eCoin – what's inside



eCoin placed ABOVE the fascia



Pivotal Study of eCoin population (N=108)



* In the pivotal study, 68% of patients were responders with at least a 50% reduction in UUI

*75% of patients were responders in the per protocol population.

Altaviva

Tibial Nerve Stimulation Implant



Altaviva™ device gives your patient access to tibial neuromodulation, a proven therapy for bladder control^{1,14}

80%

of patients reported their condition had improved[†] compared to before their implant.[‡]

70%

of patients experienced a clinically meaningful[†] improvement in health-related quality of life.[‡]

61%

of patients had a 50% or greater reduction in UII episodes after 12 months of therapy.[‡]



Adverse events related to the device, procedure, and/or therapy occurred in 20% of implanted subjects through 12-month follow-up. The most common types of related AEs were implant-related infections at the implant site (7%) and implant site pain (3%).

visit [medtronic.com/AltavivaHCP](https://www.medtronic.com/AltavivaHCP)

[†] As assessed by the Patient Global Impression of Improvement (PGI-I)
[‡] Minimally Important Difference (MID) = 10 points



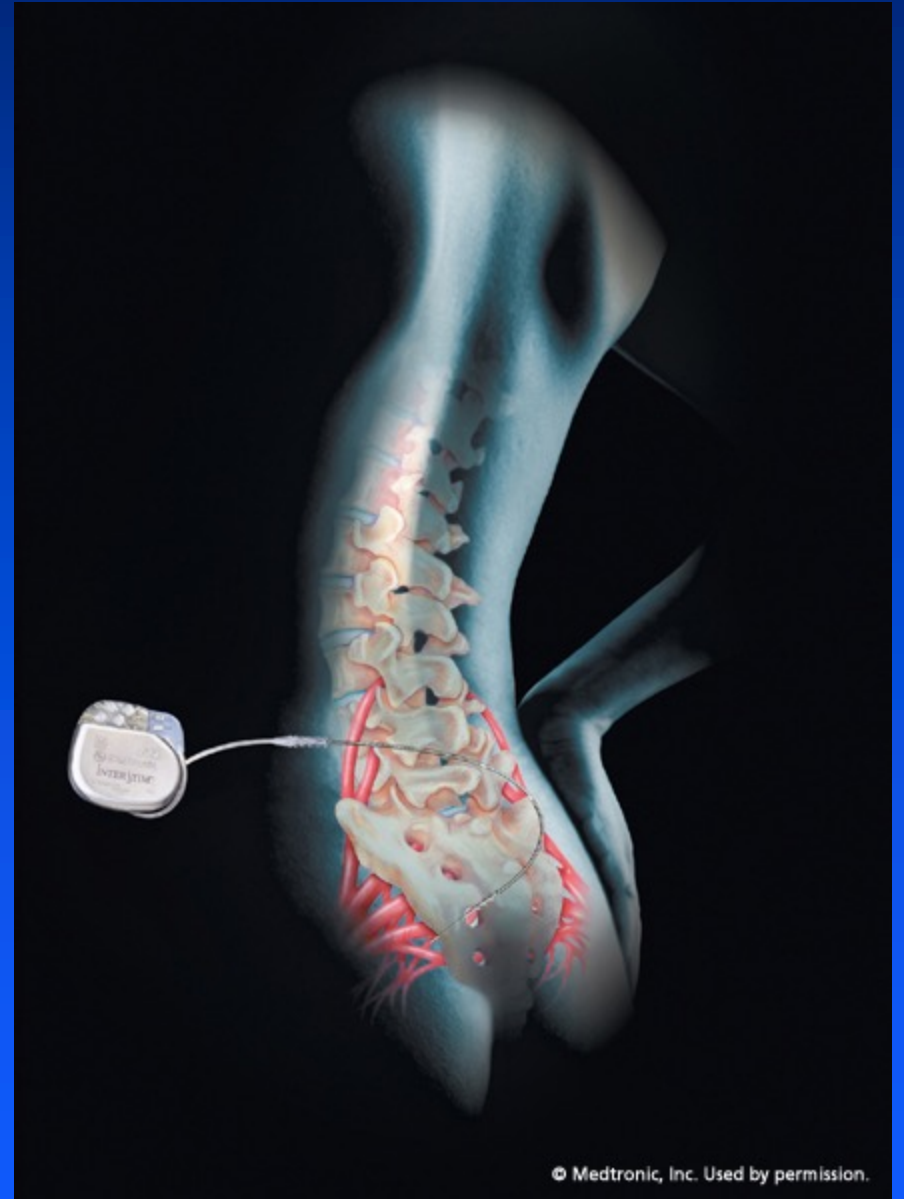
BENEFITS TO A PATIENT

- Safe and effective¹
- Automatic therapy delivery¹
- Minimally invasive¹
- No known systemic side effects¹
- No remote for patient to manage¹

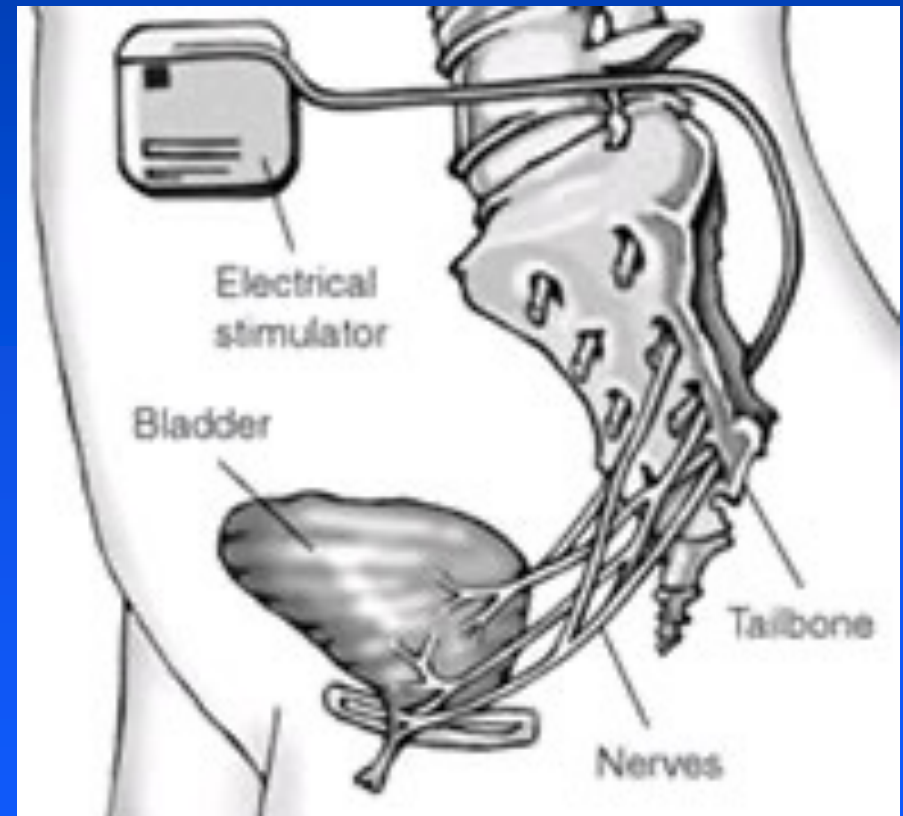
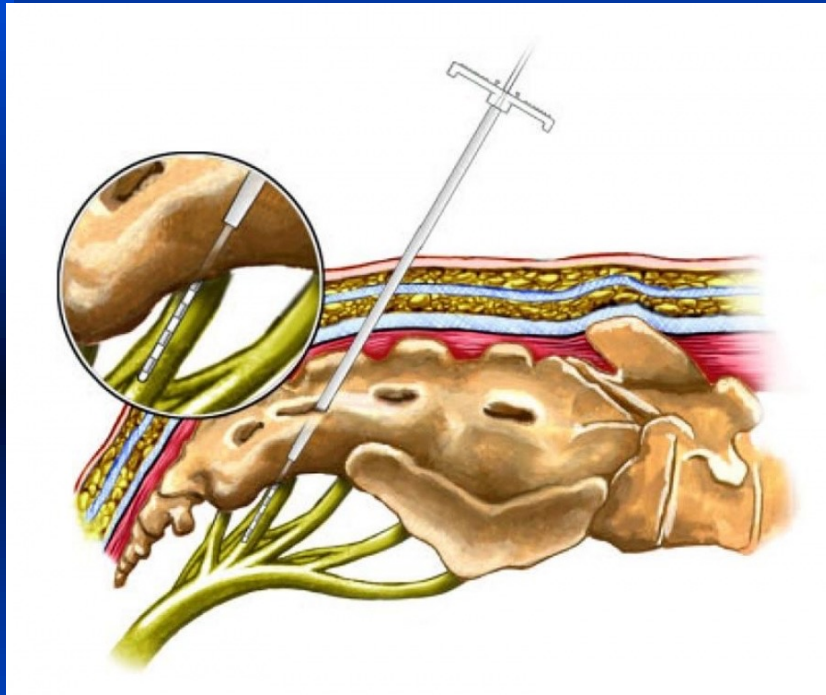


1. Rogers A, Bragg S, Ferrante K, et al. Pivotal study of leadless tibial nerve stimulation with eCoin® for urgency urinary incontinence: an open-label, single arm trial. Journal of Urology. August 2021.

InterStim Therapy

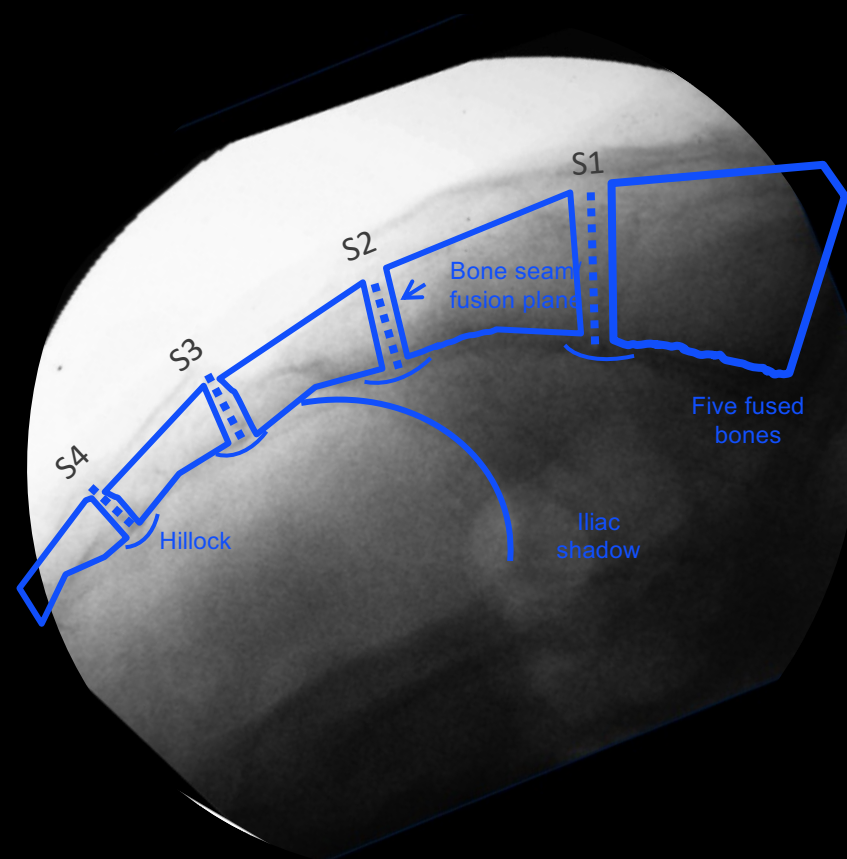


Neurologic S3 pathway

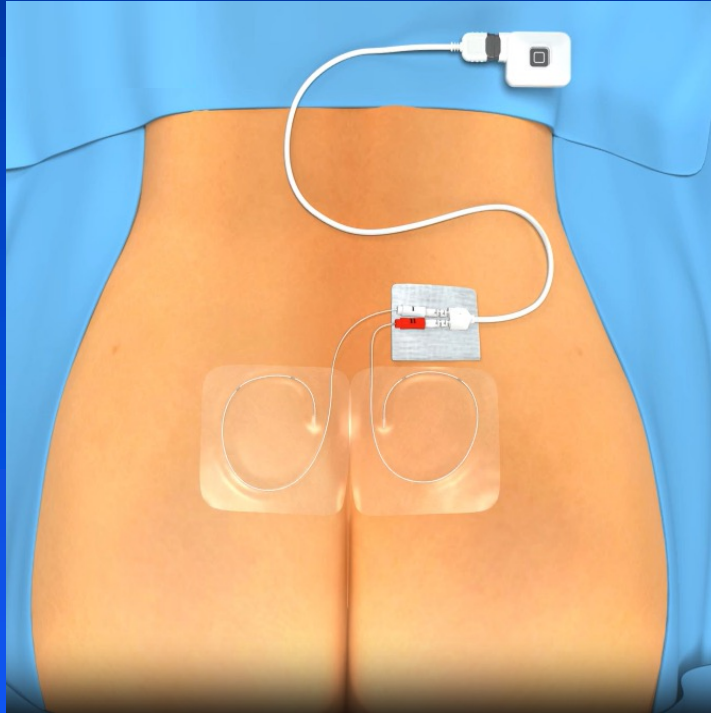


Key fluoroscopy landmarks Lateral view

- Hillocks
- Bone seam/fusion plane
- Five fused bones
- Iliac shadow



Basic Evaluation



The InterStim™ Basic Evaluation lead is designed to minimize electrode movement during daily activities*

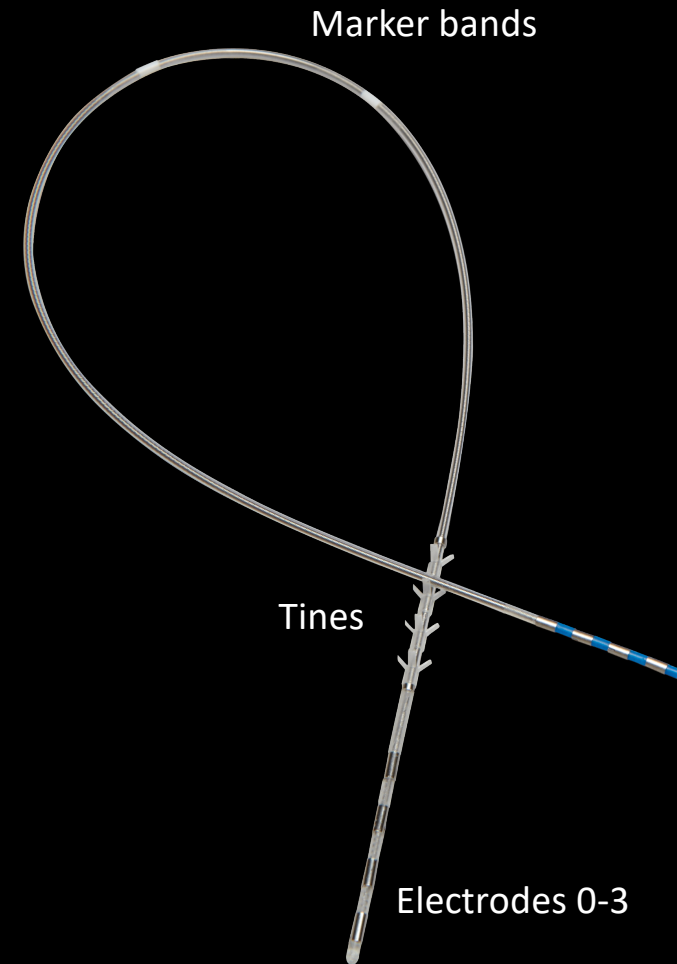


InterStim™ Advanced Evaluation

- InterStim™ SureScan™ MRI lead
- Proprietary SureScan™ MRI technology
 - expands eligibility and allows patients with either InterStim™ system to get full-body* 1.5T & 3T MRI scans
- Can be performed in OR or ASC
- Uses General or Local/MAC anesthetic
- Up to 14-day evaluation period
- Fluoroscopy used

*Under certain conditions: see approved labeling for details

UC202400053EN SNM InterStim™ systems tined lead & neurostimulator implant procedure FY24



InterStim X™ system and InterStim™ Micro systems



- Recharge free system
- Updated core electronics
 - Efficient
 - Onboard memory
- 5th generation patented battery chemistry
- Superior peak power output capabilities

MRI compatible since 2020

Long life battery since 2022

*Under expected therapy settings and telemetry use.

* Please see System Eligibility, Battery Longevity, Specification's manual for battery longevity estimates.
InterStim X™ Technical Claims Matrix NDHF1606-206048



- Rechargeable system
- Zero Fade*
 - NO cycle or calendar fade
- Rapid recharge**
- Overdischarge tolerant
 - Overdischarge has NO impact on InterStim™ Micro

*Under standard patient therapy settings and telemetry use.

**Under standard patient therapy settings and appropriate recharger placement.

Treatment of Urinary Incontinence

URGE



Conservative

- InterStim
 - ◆ MRI compatible

- Bladder Augmentation
 - ◆ small capacity bladder
 - ◆ poor compliance

- Ileal conduit

Invasive



Protective Undergarments



Depend
FIND YOUR SIZE

	SM / MED	LG / XL
WAIST	28-40 in	38-50 in
WEIGHT	115-190 lbs	170-260 lbs
HIPS	34-46 in	44-54 in

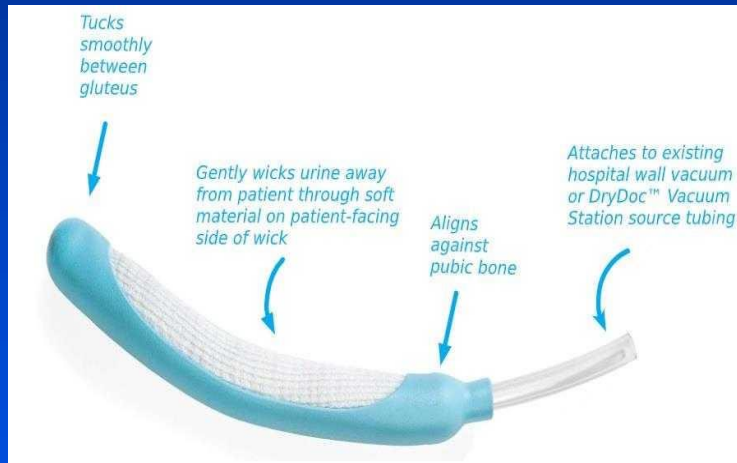
CARER
Healthcare Incontinence / Pregnancy

Incontinence Underwear for Men

Providing a Better Solution
for Your Leaks

120 mL
Discreet Protection For
Light-moderate Incontinence

Purewick External Catheter

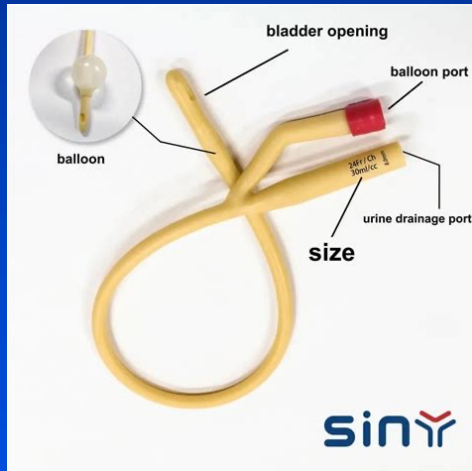


Women starter kit
\$794.69
30 wicks: \$209.70

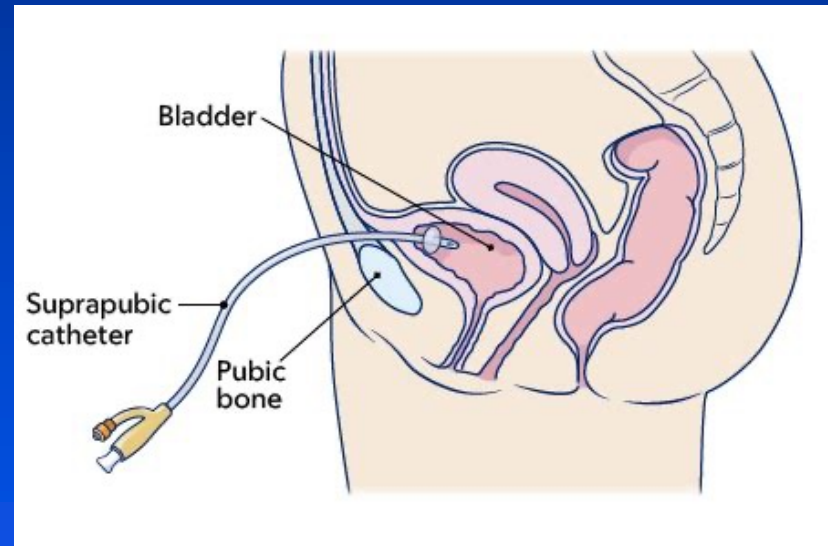
Men starter kit
\$849.00
30 bags: \$450.00

Catheterization

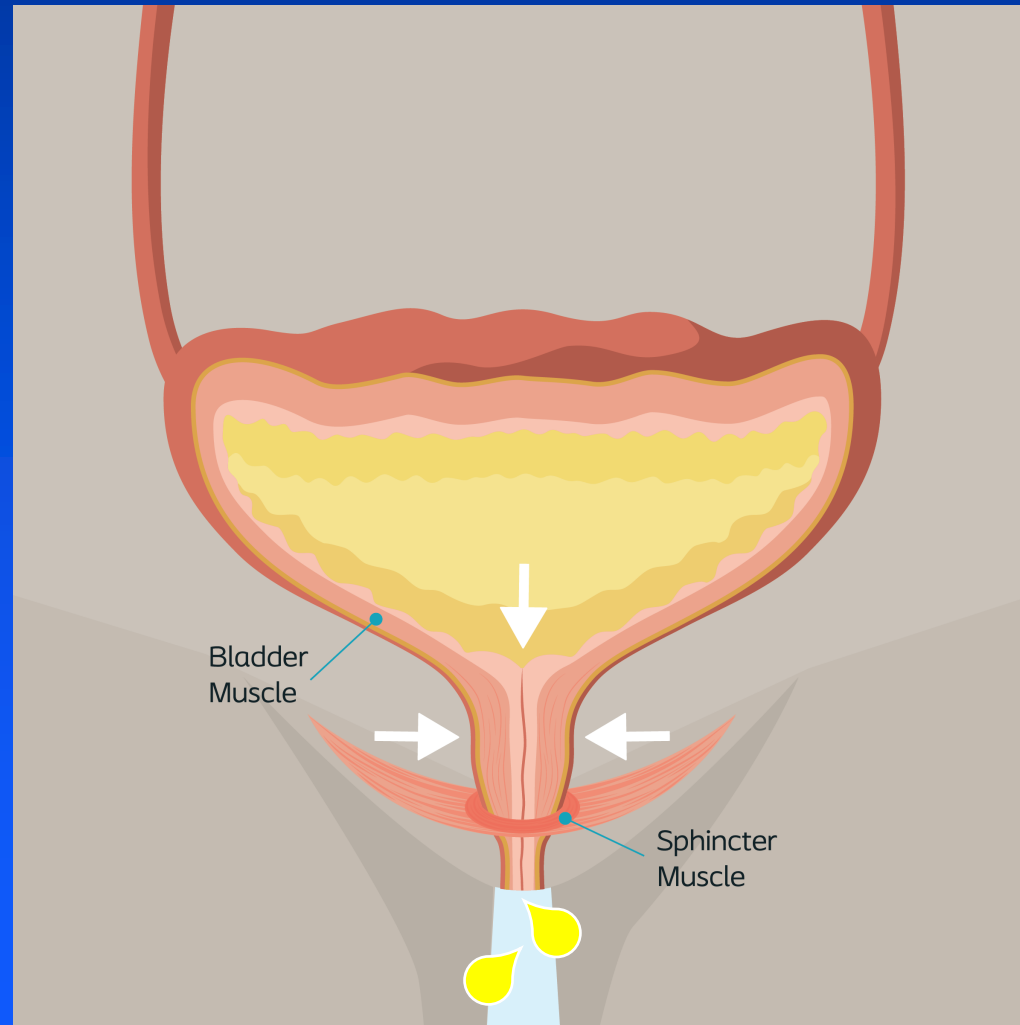
Urethral



Suprapubic

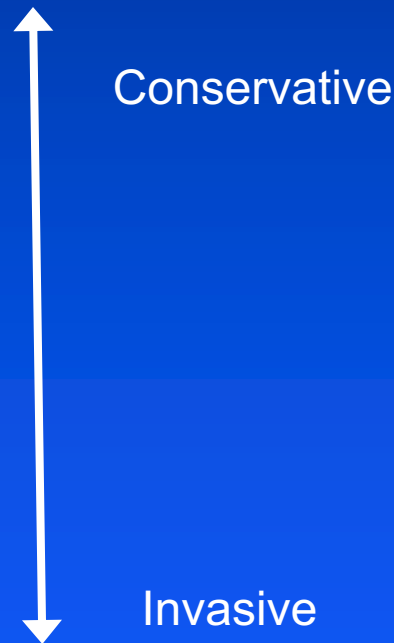


Stress Urinary Incontinence



Treatment of Urinary Incontinence

STRESS



■ Pelvic Floor Muscle Exercises

◆ Kegels

- ◆ isometric repetitions
- ◆ education = success
- ◆ compliance

■ Pessary

- ◆ +/- prolapse

■ Drug Therapy

- ◆ Estrogen
- ◆ Duloxetine (40 mg bid)
- ◆ Imiprimine
 - ◆ α adrenergic agonist - stimulates sphincter
 - ◆ anticholinergic
- ◆ Pseudoephedrine (Sudafed) 120 mg bid

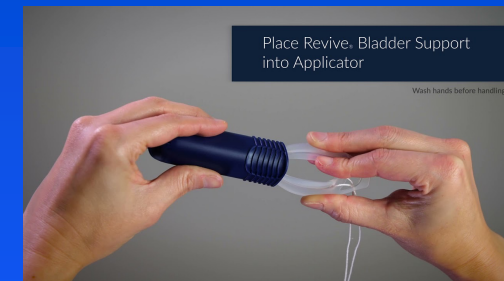
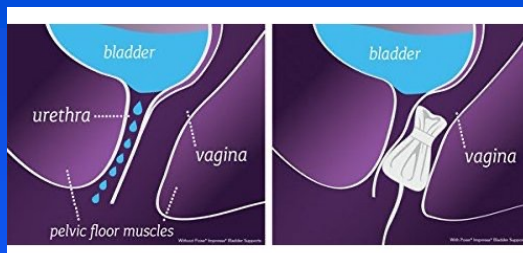
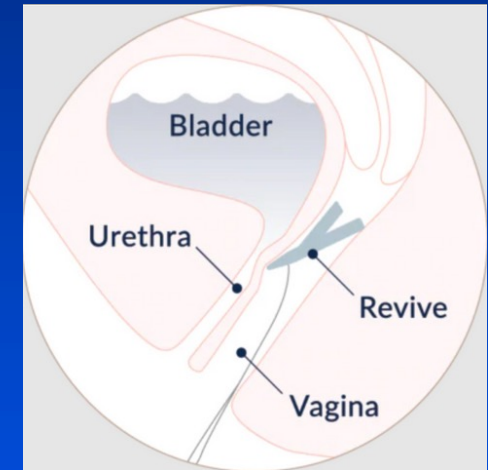


Over the Counter

Impressa Bladder Support



Revive Bladder Support



- FSA and HSA eligible
- Cost
 - Single use
 - Sizing kit- \$16.99
 - \$1.71/ use

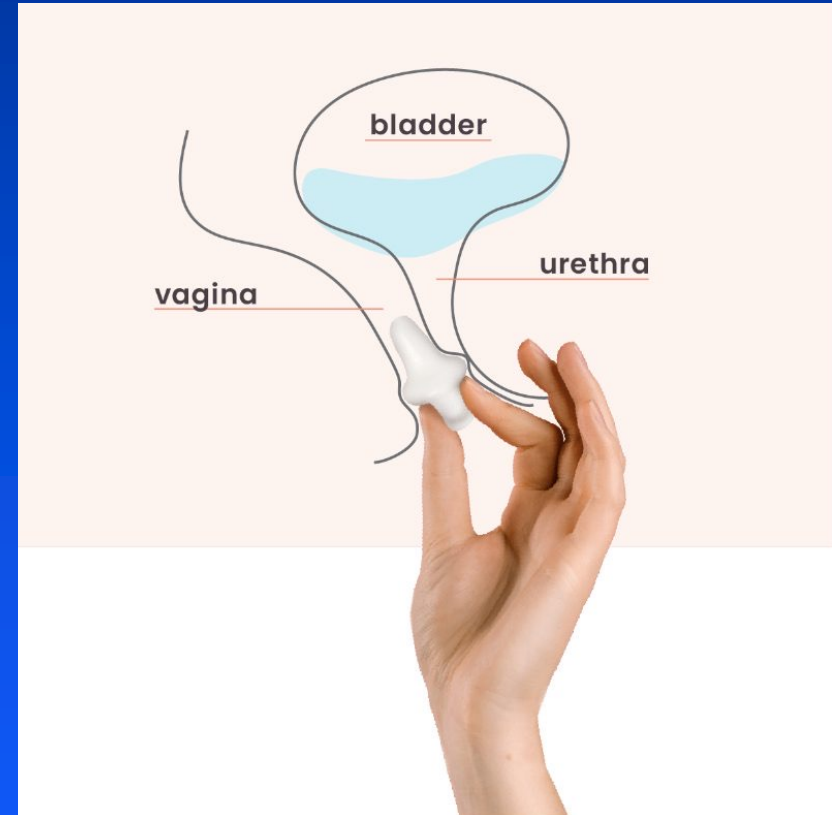
- FSA and HSA eligible
- Cost
 - Reusable: 31 uses
 - One size
 - \$ 1.00/ use

Over the Counter

Uresta Bladder Support



- FSA and HSA eligible
- Cost
 - Multiple use
 - Sizing kit- \$179.00
 - Replacement price?



Male Over the Counter products

Price range \$12 to \$99 on Amazon

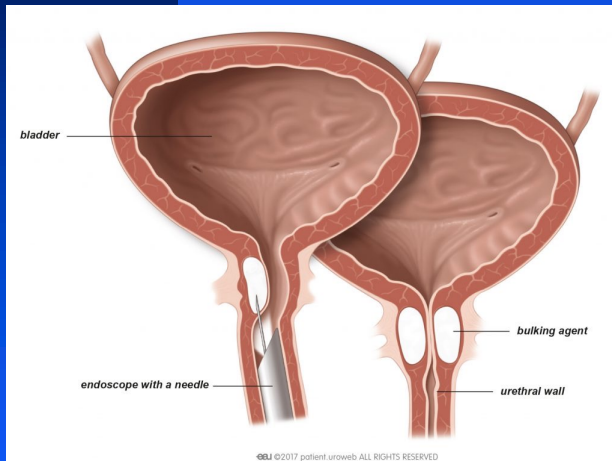
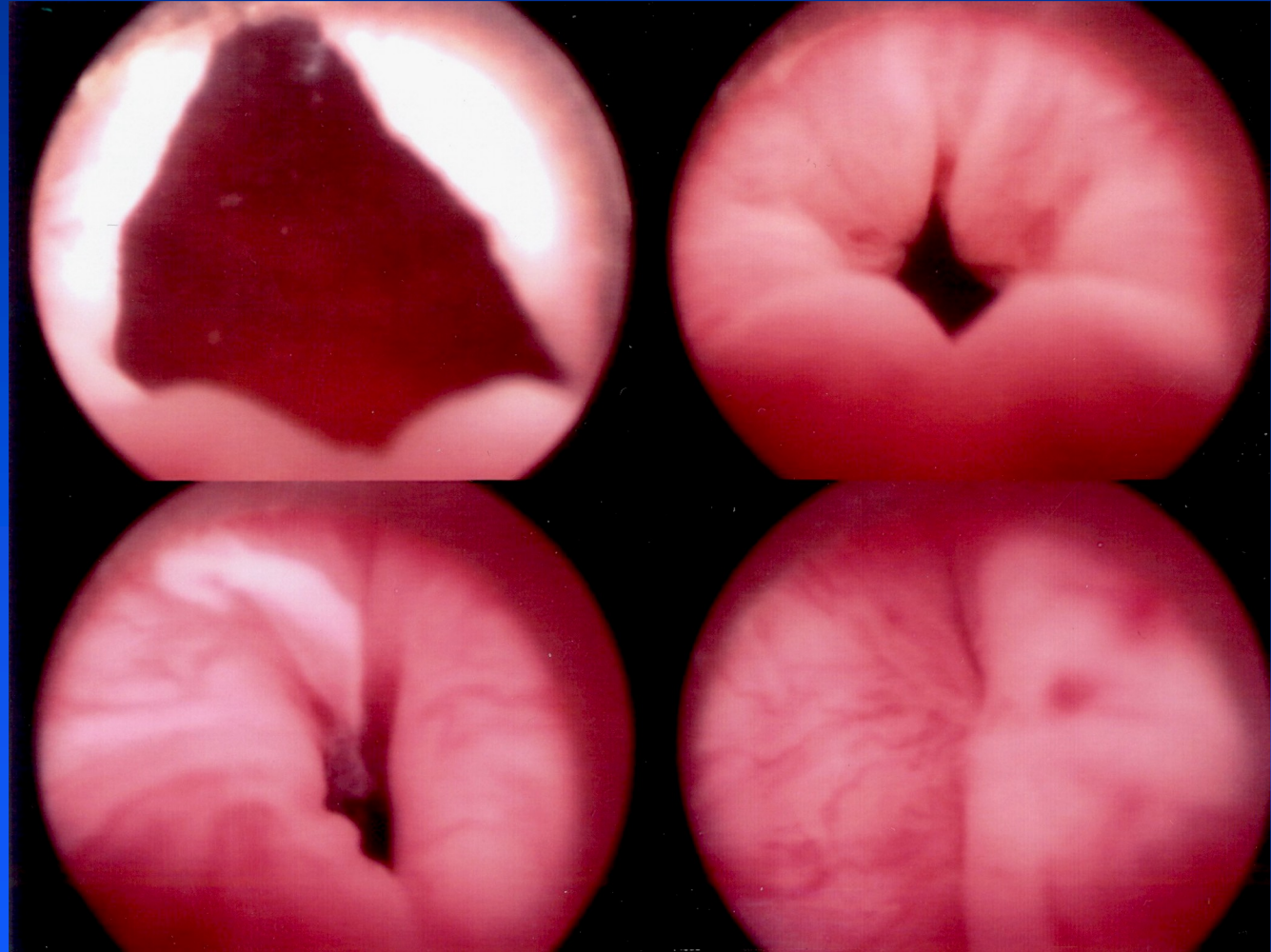




BULKAMID: A NEW PARADIGM IN SUI TREATMENT

Injectable Bulking Agent

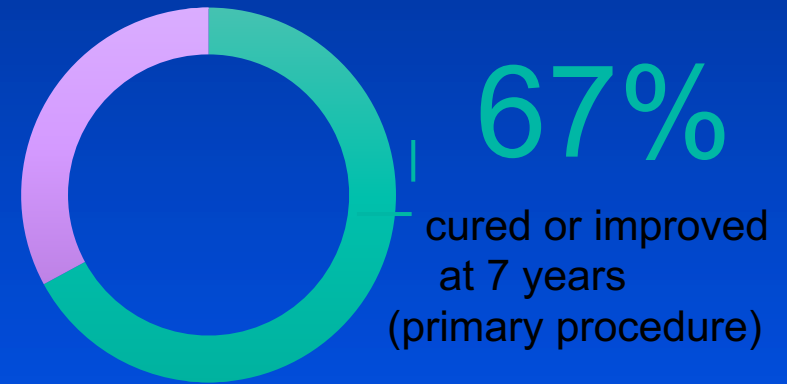
Bulkamid Transurethral Injection



7 Year Outcomes of Bulkamid

BROSCHÉ et al. (2021)

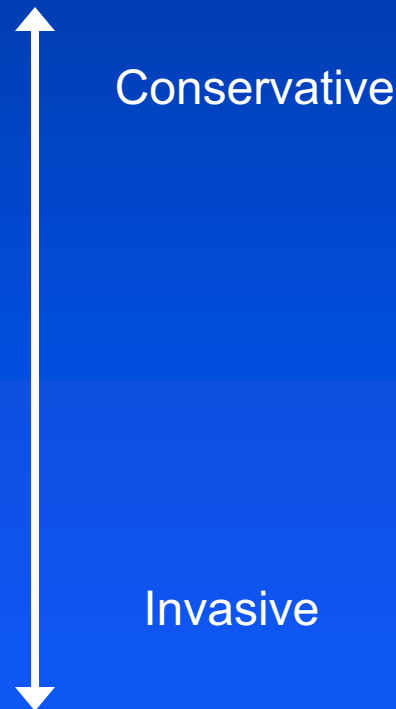
Parameter	Description
N	388
Study design	Single-center retrospective study
Incontinence type	SUI and Stress Dominant UI
Median average age (SD)	65.7 years (10.4)
Previous incontinence surgery	33% had prior surgery (26% MUS)
Follow up	All 388 patients had completed 7 years of follow up
Bulkamid Top Off	A second ("top-off") injection of Bulkamid was conducted in 32% of patients at a median of 9 months after the initial injection



With durable outcomes at 7 years in 388 patients, Bulkamid has been shown to be an effective and safe long-term primary treatment option for women suffering from SUI or stress-predominant MUI with no serious long term complications reported

Treatment of Urinary Incontinence

STRESS



- Bladder Neck Suspension Procedures
 - ◆ 78-80% cure at 5 years
- Sling Cystourethropexy
 - ◆ autologous
 - ✦ 70-95% at 5-9 years
 - ◆ synthetics - polypropylene mesh
 - ✦ 80-90% at 2-7 years



FDA

U.S. Department of Health and Human Services
Food and Drug Administration

FDA WARNINGS

■ 2008 Public Health Notification

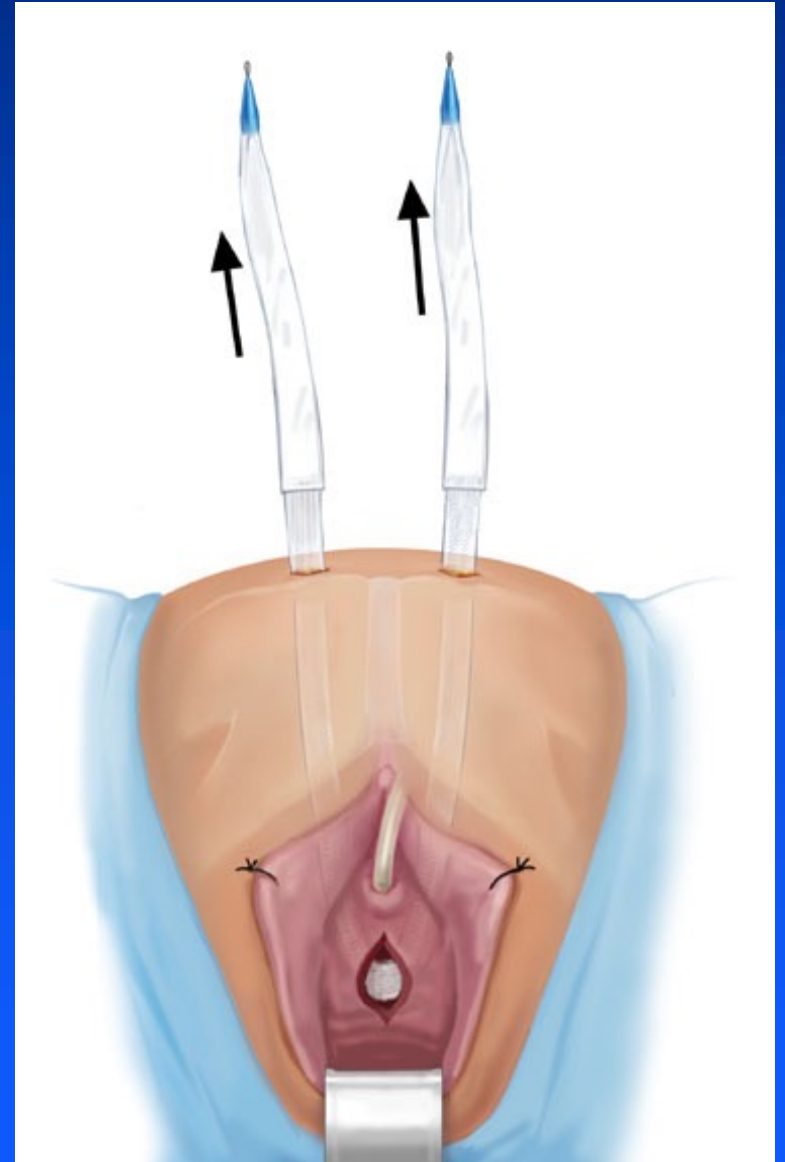
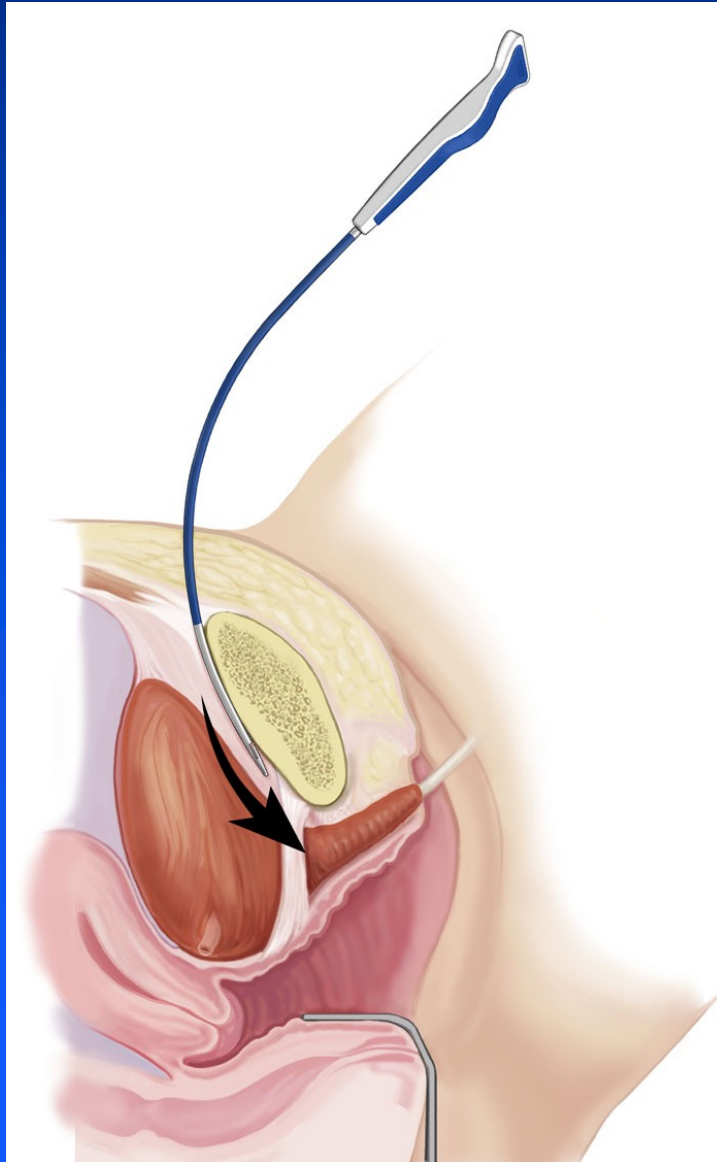
◆ Complications

- ✦ Transvaginal mesh
- ✦ Slings

■ 2011 FDA Hearing

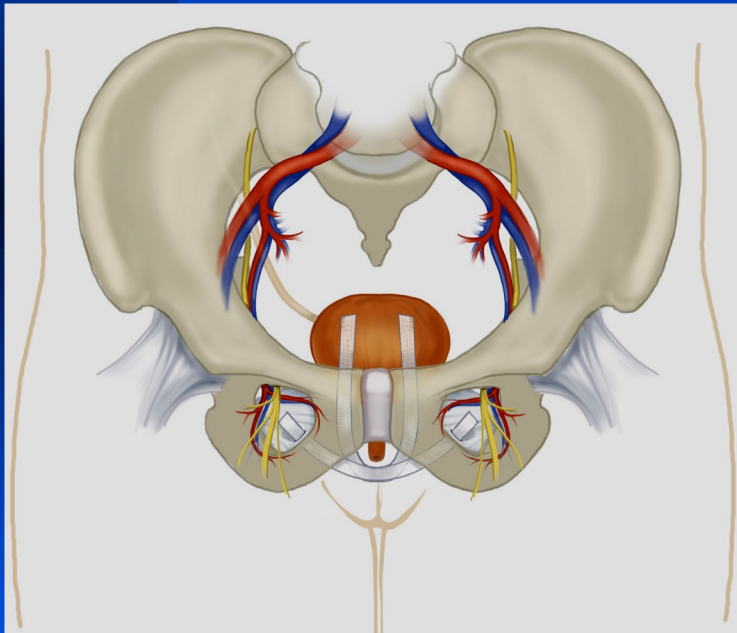
- ◆ Reclassified Transvaginal mesh to Category III
- ◆ NO warning or reclassification for mid urethral slings
- ◆ Abdominal Sacrocolpopexy mesh deemed safe and effective

Suprapubic Cystourethropexy

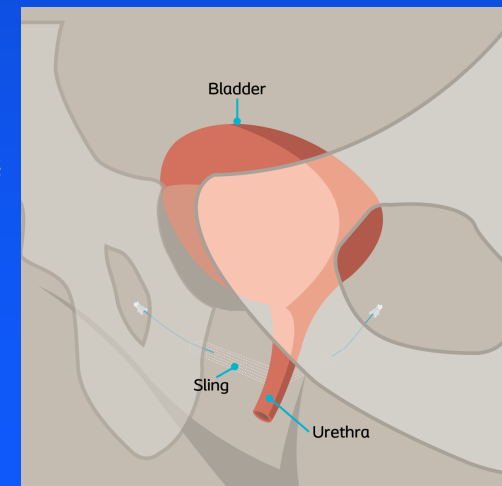
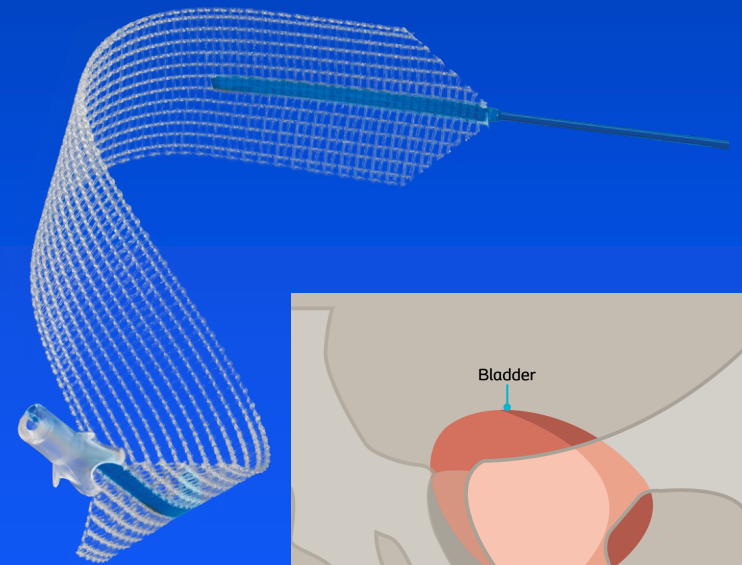


Sling Cystourethropexy

Transobturator Sling

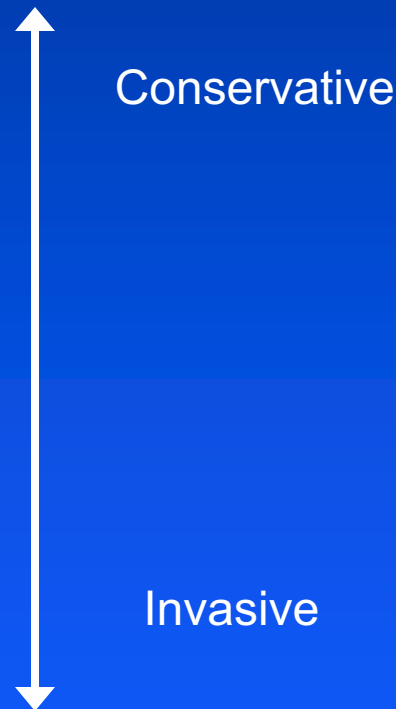


Single Incision Sling



Treatment of Urinary Incontinence

STRESS



■ Male Bulbourethral Slings

- ◆ Post prostatectomy incontinence
- ◆ Varying degrees of success

■ Artificial Urinary Sphincter

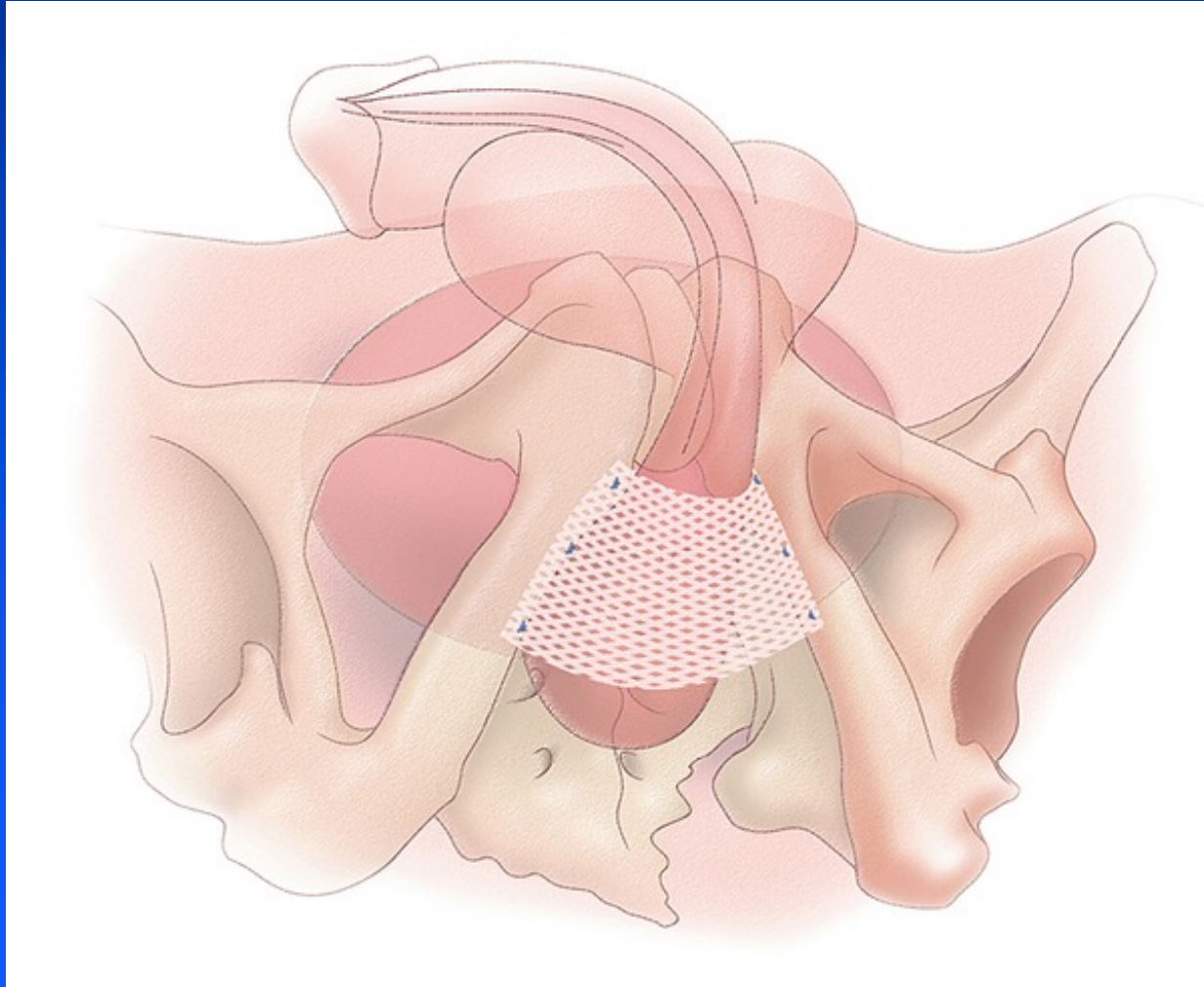
◆ Men

- ◆ gold standard for post RRP
- ◆ 27% no pads vs. 72% 1-3 pads at 8 years
- ◆ complications

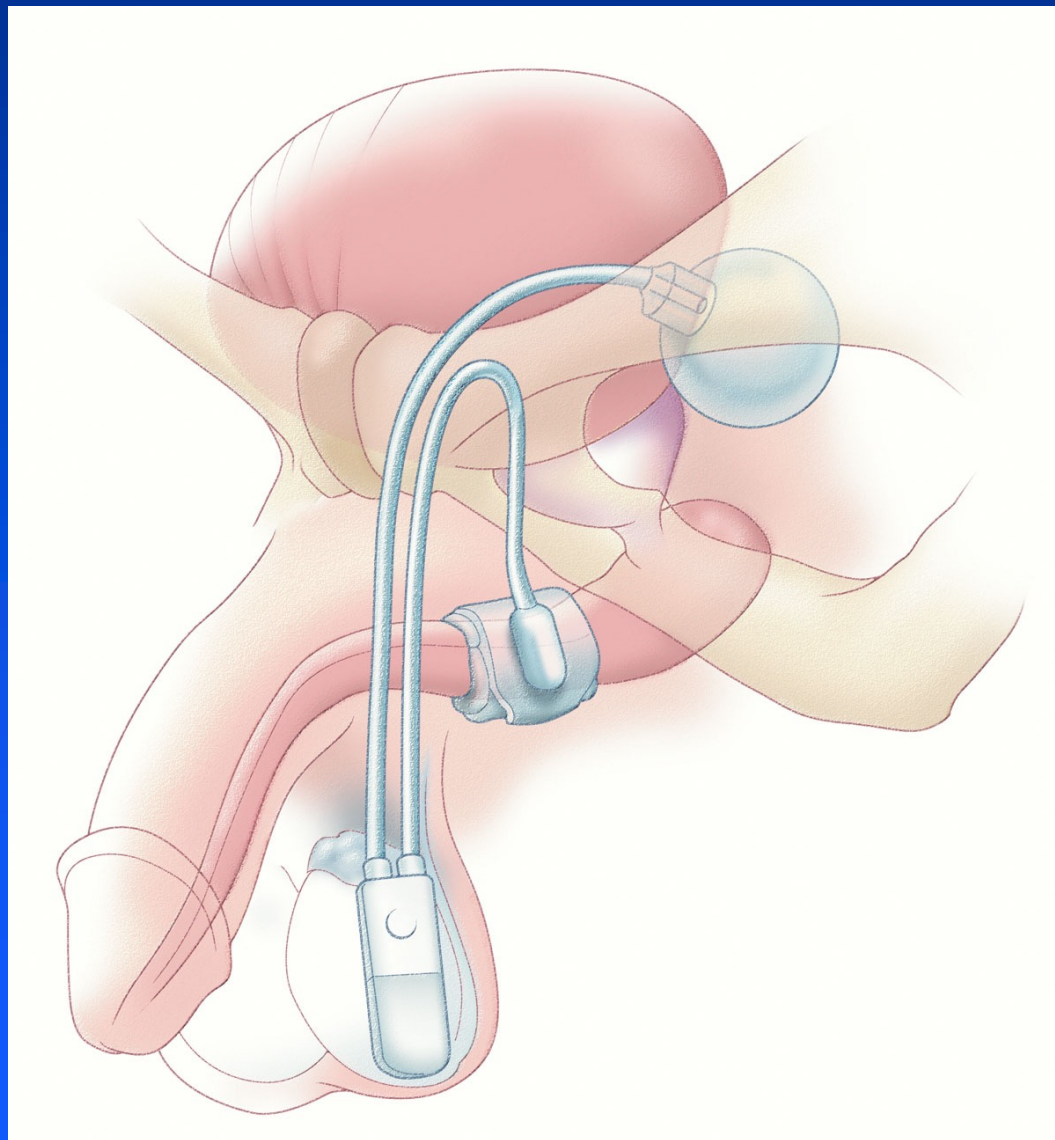
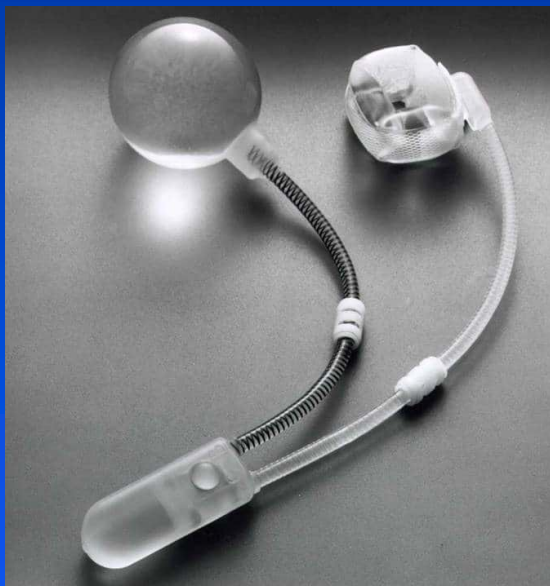
◆ Women

- ◆ 85% cure at 4 years

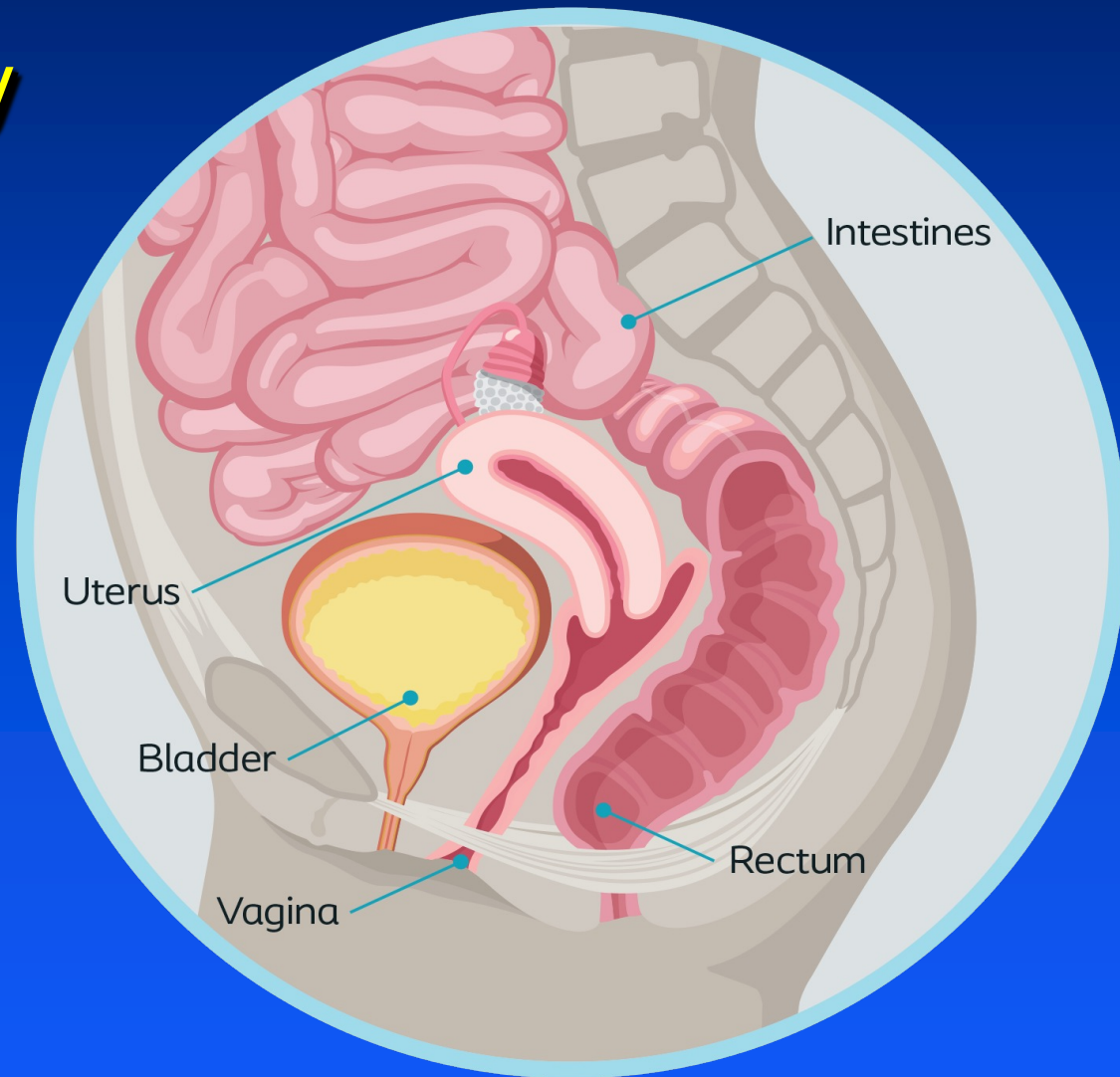
Male Bulbourethral Sling



Artificial Urinary Sphincter



Normal anatomy



*Female anatomy
without prolapse*

PELVIC ORGAN PROLAPSE



Facts About Pelvic Organ Prolapse

- Experiencing pelvic organ prolapse **can be challenging** – it can interfere with your activities, intrude on your personal life, and cause some serious discomfort
- Women with POP are **3 times more likely** to **suffer from depression**
- Can lead to **sexual dysfunction**

Up to

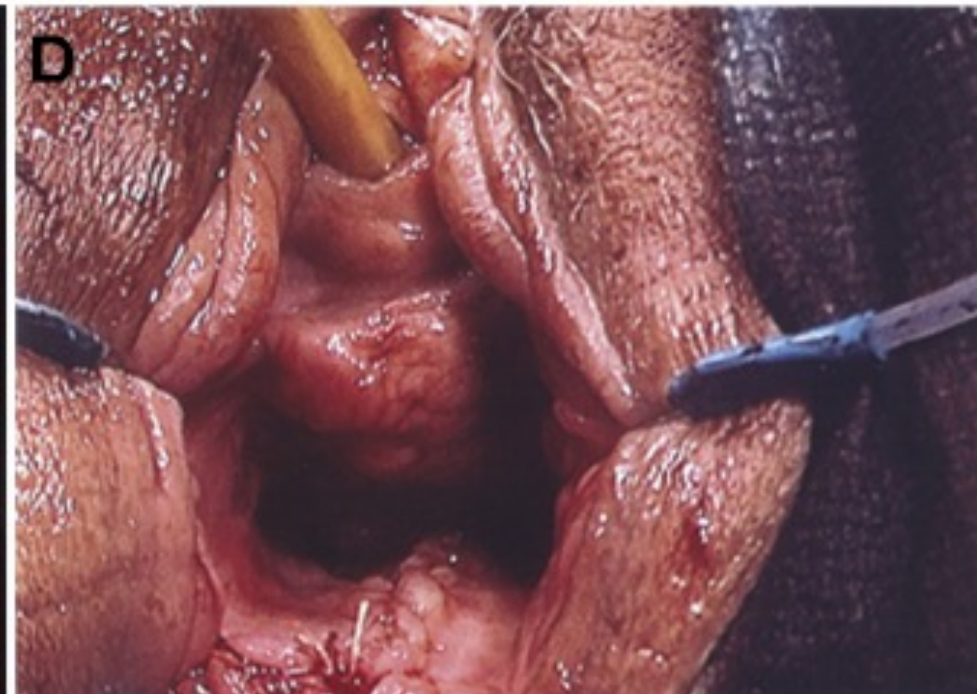
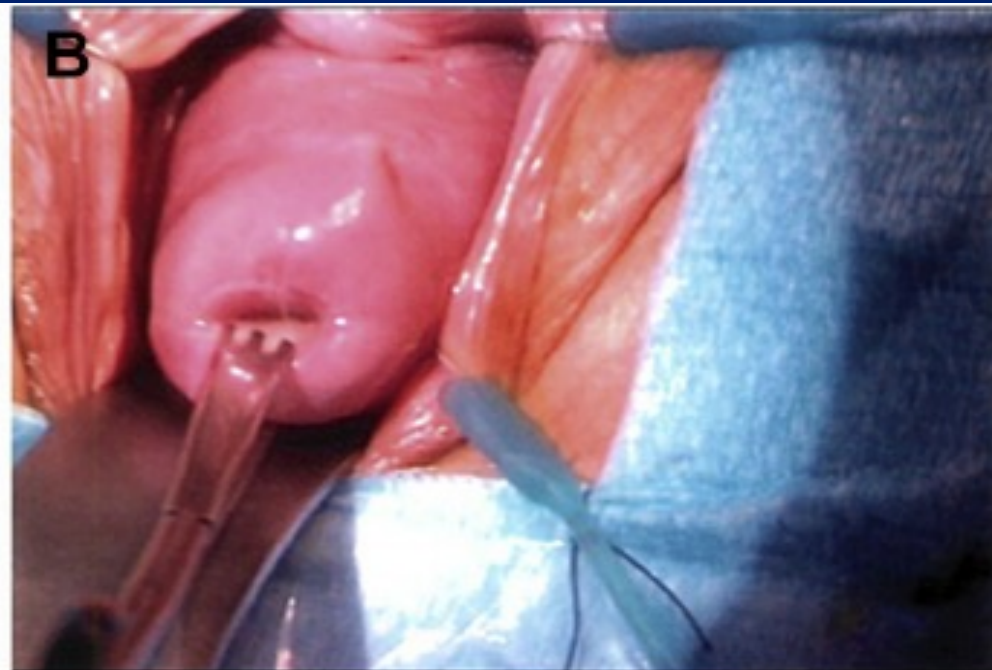
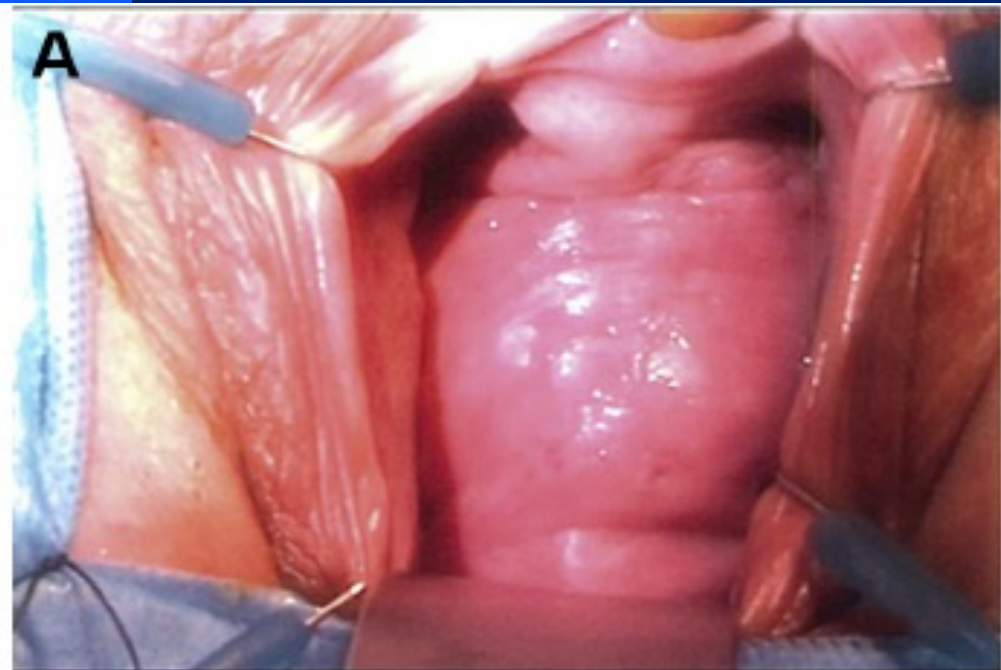
50% females

will experience pelvic organ prolapse



***1 in 10 women**

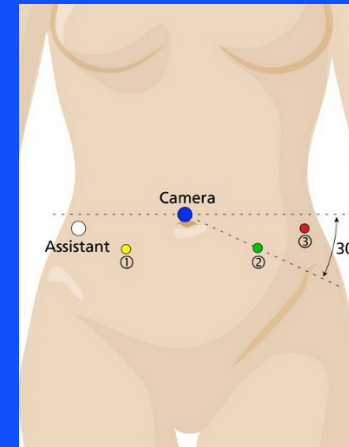
require surgical correction during their lifetime



Surgical Solutions

Two approaches to POP repair

- **Through the vagina (Transvaginal)**
This approach includes various types of procedures where a surgeon corrects your prolapse through your vagina using your own tissue or a biologic graft, called an allograft (colpopexy).¹
- **Through the abdomen (Transabdominal)**
This approach corrects prolapse via incisions in the abdomen that allow surgeons to attach surgical mesh from the vagina to tissue at the sacrum (sacrocolpopexy). This procedure can be done using a surgical robot or laparoscopic instruments.¹



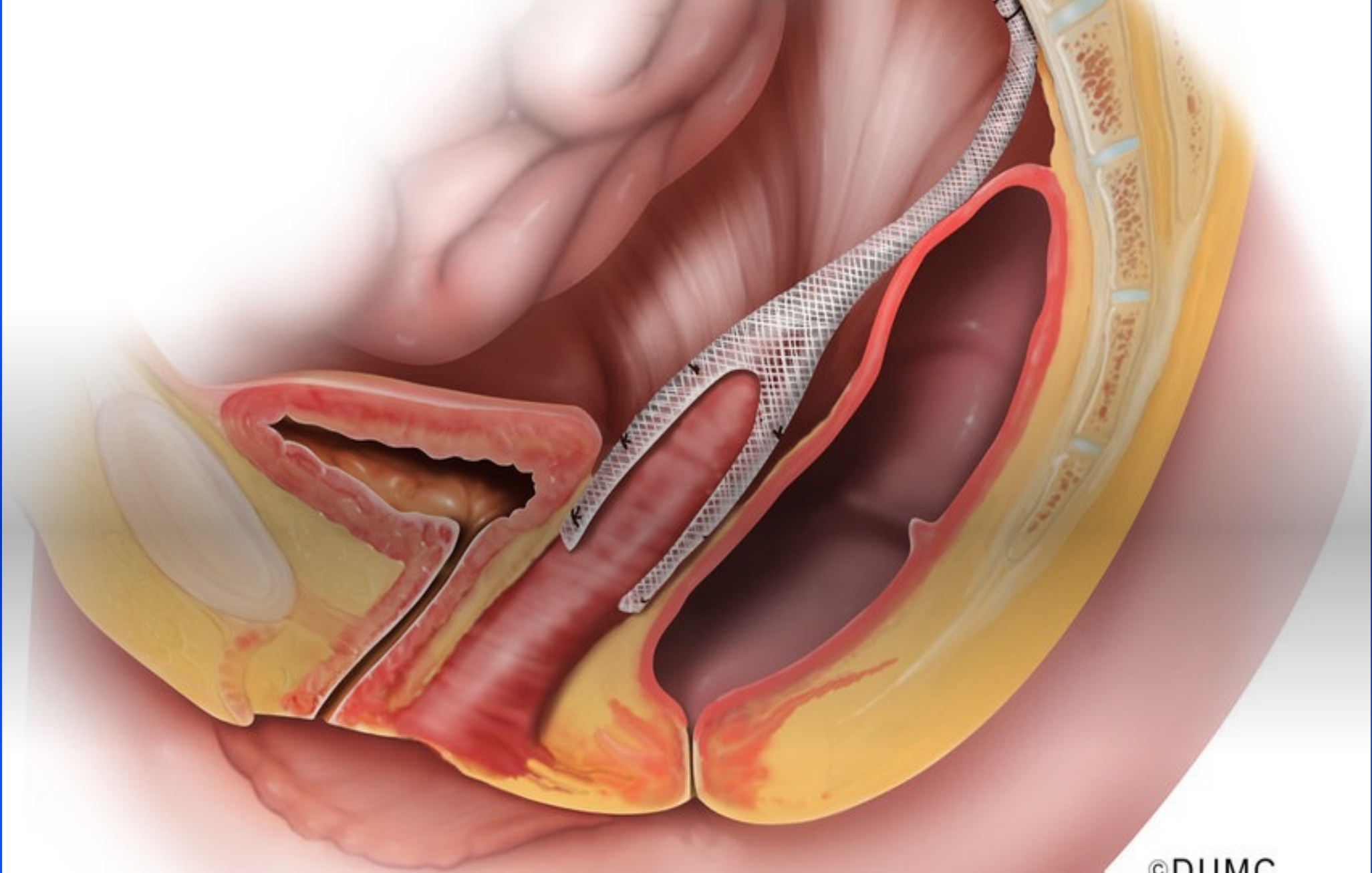
1. Developed by the Joint Writing Group of the American Urogynecologic Society and the International Urogynecological Association. Joint report on terminology for surgical procedures to treat pelvic organ prolapse. *Int Urogynecol J* 31, 429–463 (2020). <https://doi.org/10.1007/s00192-020-04236-1>

Appropriate Candidates: Abdominal Sacrocolpopexy (ASC)

- Advanced stage prolapse
- Previous failed repair
- Patients with shorter/shortened vagina
- Patients who still want to have intercourse
- When durability matters

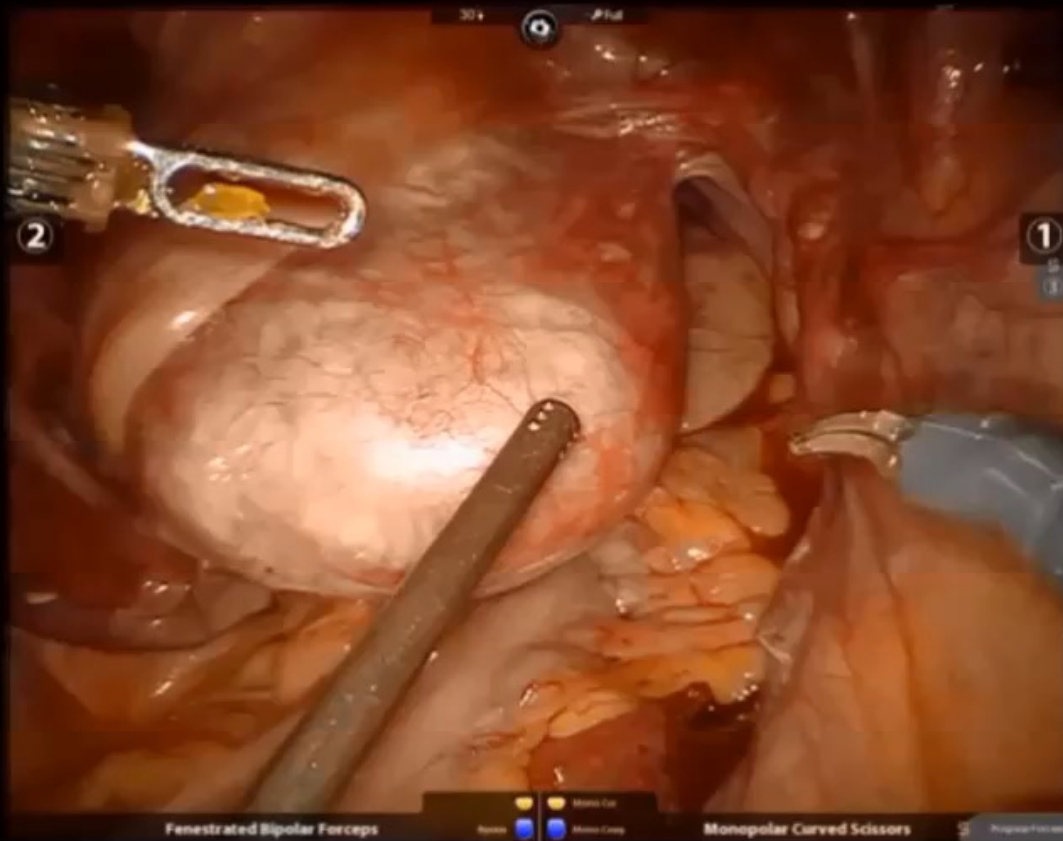
Advantages of ASC

- High Success Rate – 95%
- Restoration of anatomy including appropriate angle
 - ◆ Less dyspareunia
 - ◆ Lower risk of de novo prolapse in anterior compartment
- Maintains length of vagina



©DUMC

John Liff

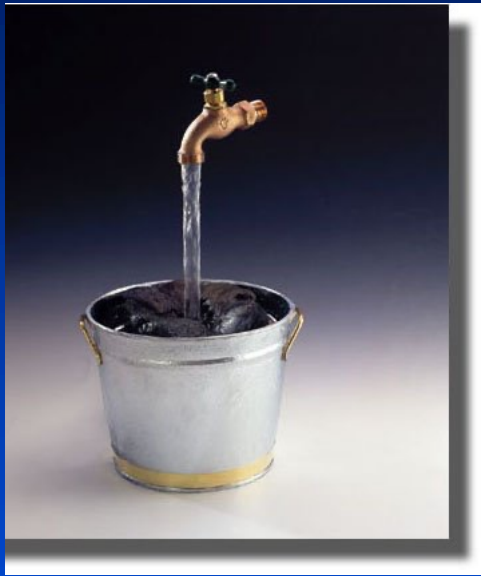


Complete Procidentia



Restored Anatomy





Questions?

Amy McKerrow
Logan Health
Urology Specialists



