THE TYPES, CAUSES, AND TREATMENT OF URINARY INCONTINENCE

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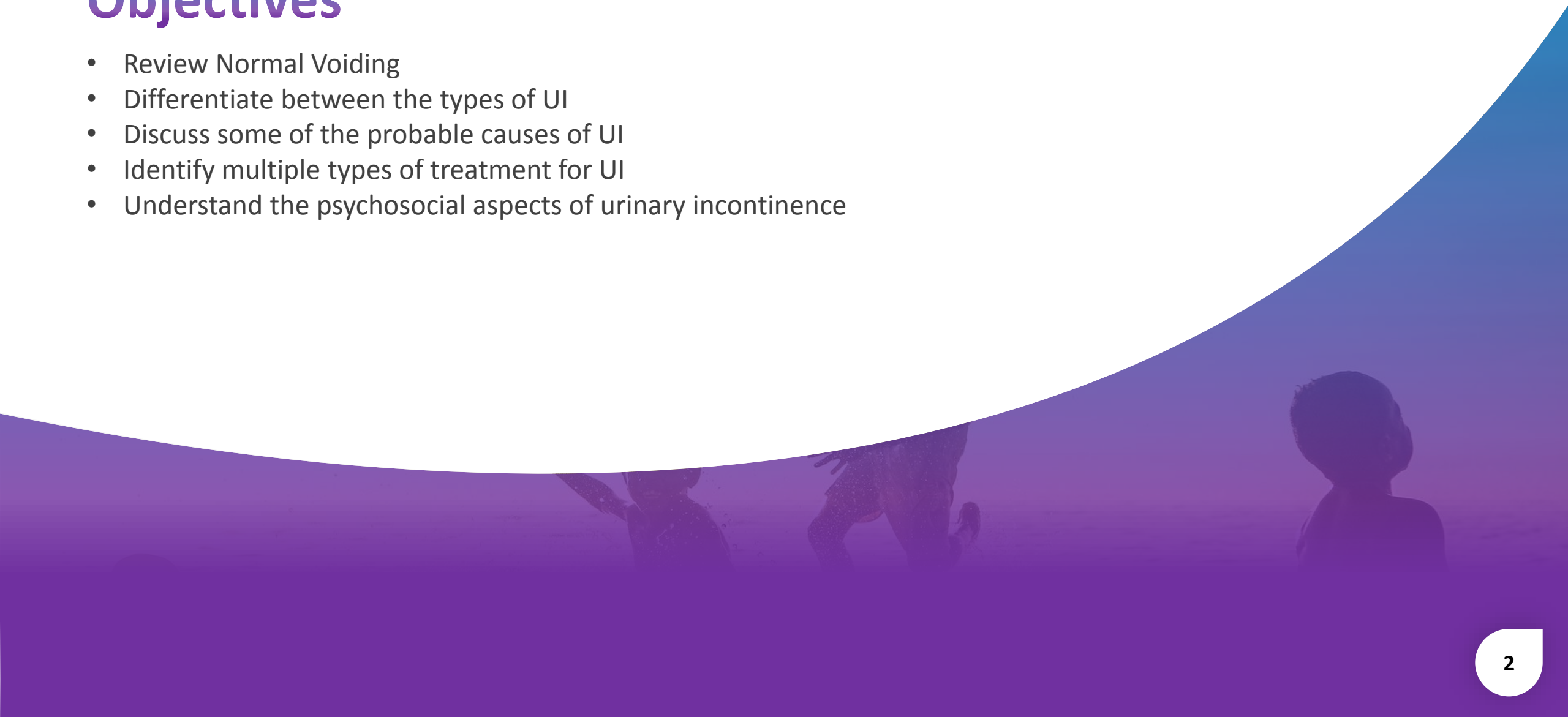
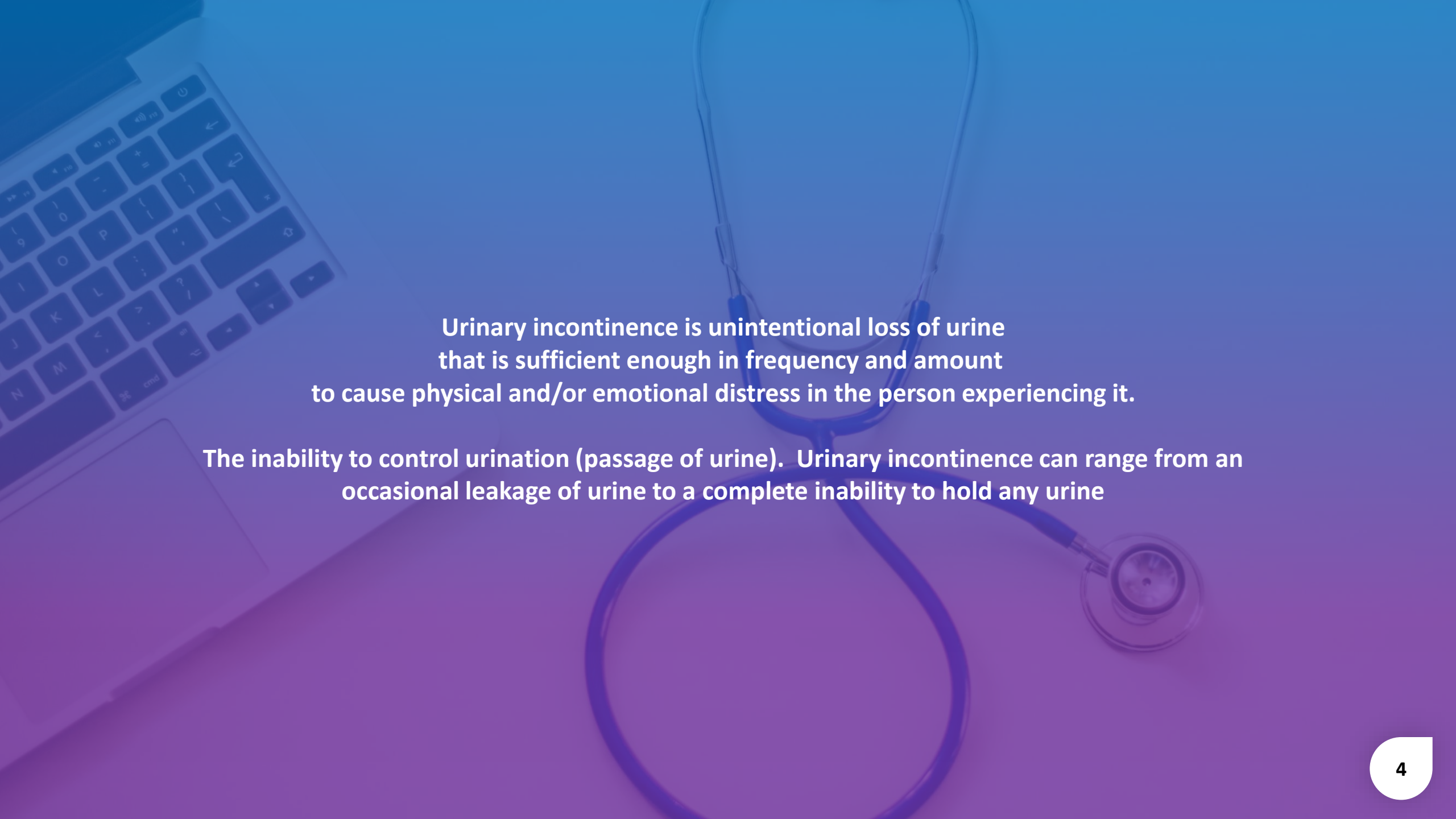
Objectives

- Review Normal Voiding
- Differentiate between the types of UI
- Discuss some of the probable causes of UI
- Identify multiple types of treatment for UI
- Understand the psychosocial aspects of urinary incontinence



Definitions Of Urinary Incontinence

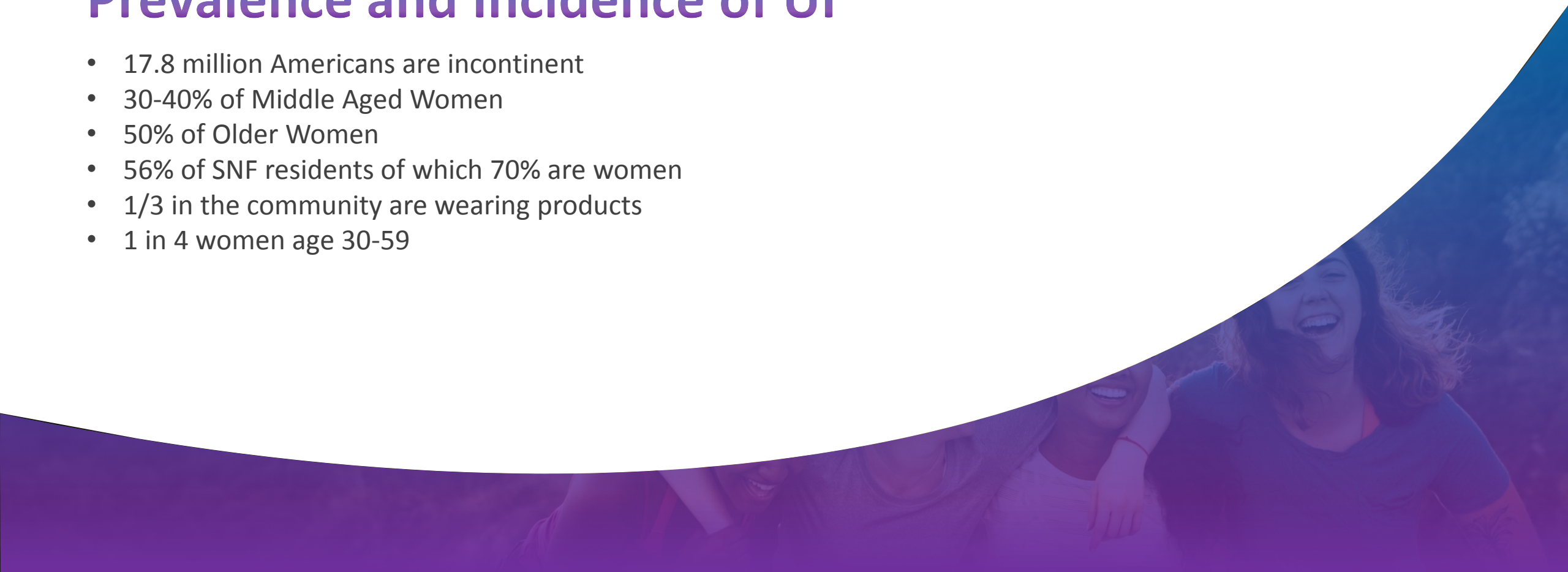


Urinary incontinence is unintentional loss of urine that is sufficient enough in frequency and amount to cause physical and/or emotional distress in the person experiencing it.

The inability to control urination (passage of urine). Urinary incontinence can range from an occasional leakage of urine to a complete inability to hold any urine

Prevalence and Incidence of UI

- 17.8 million Americans are incontinent
- 30-40% of Middle Aged Women
- 50% of Older Women
- 56% of SNF residents of which 70% are women
- 1/3 in the community are wearing products
- 1 in 4 women age 30-59



Hu, Wagner, Bentkover, Leblanc, Zhou, Hunt. Urinary incontinence and overactive bladder in the United States: a comparative study. Urology. 2004;63:461–5.

Types Of Incontinence

S tress incontinence

U rge incontinence

M ixed incontinence

F unctional incontinence

O verflow incontinence

O veractive Bladder

T otal incontinence

Persistent Incontinence

- Sphincter weakness-following prostate surgery in men or vaginal surgery in women
- Pelvic prolapse
- Nervous system impairment-MS, Parkinson's, strokes, spinal cord injury
- Mental or psychological changes

- Bladder Cancer
- Pelvic muscle weakness
- Enlarged prostate
- Nerve or muscle damage after radiation
- Developmental problems of bladder
- Pelvic, prostate or rectal surgery
- Bladder spasms

Studies done by DevoreEE, Minassian VA,l and Grodstein F show that older age, white race, and obesity were particularly strongly related to persistent UI.

Transient Causes Of Incontinence

D elirium

I nfection

A trophic vaginitis

P harmaceuticals

P sychological

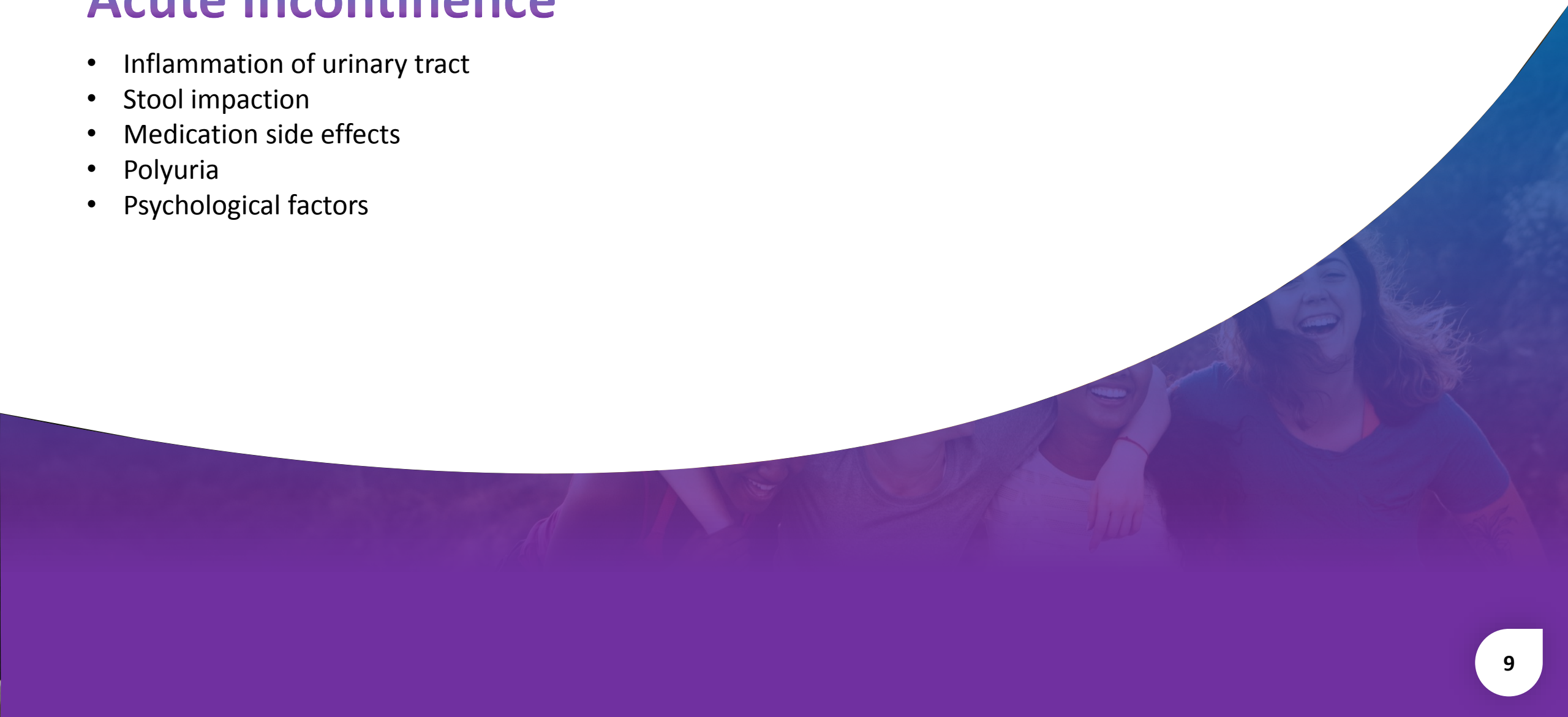
E ndocrine disorder

R etricted mobility

S tool impaction

Acute Incontinence

- Inflammation of urinary tract
- Stool impaction
- Medication side effects
- Polyuria
- Psychological factors



Psychosocial Issue

H umiliation

E mbarrassment

L oss of dignity

P Sychological damage

L onely

E nclosed

S hame

S elf conscious

A ggraveted

F rustrated

R estrained

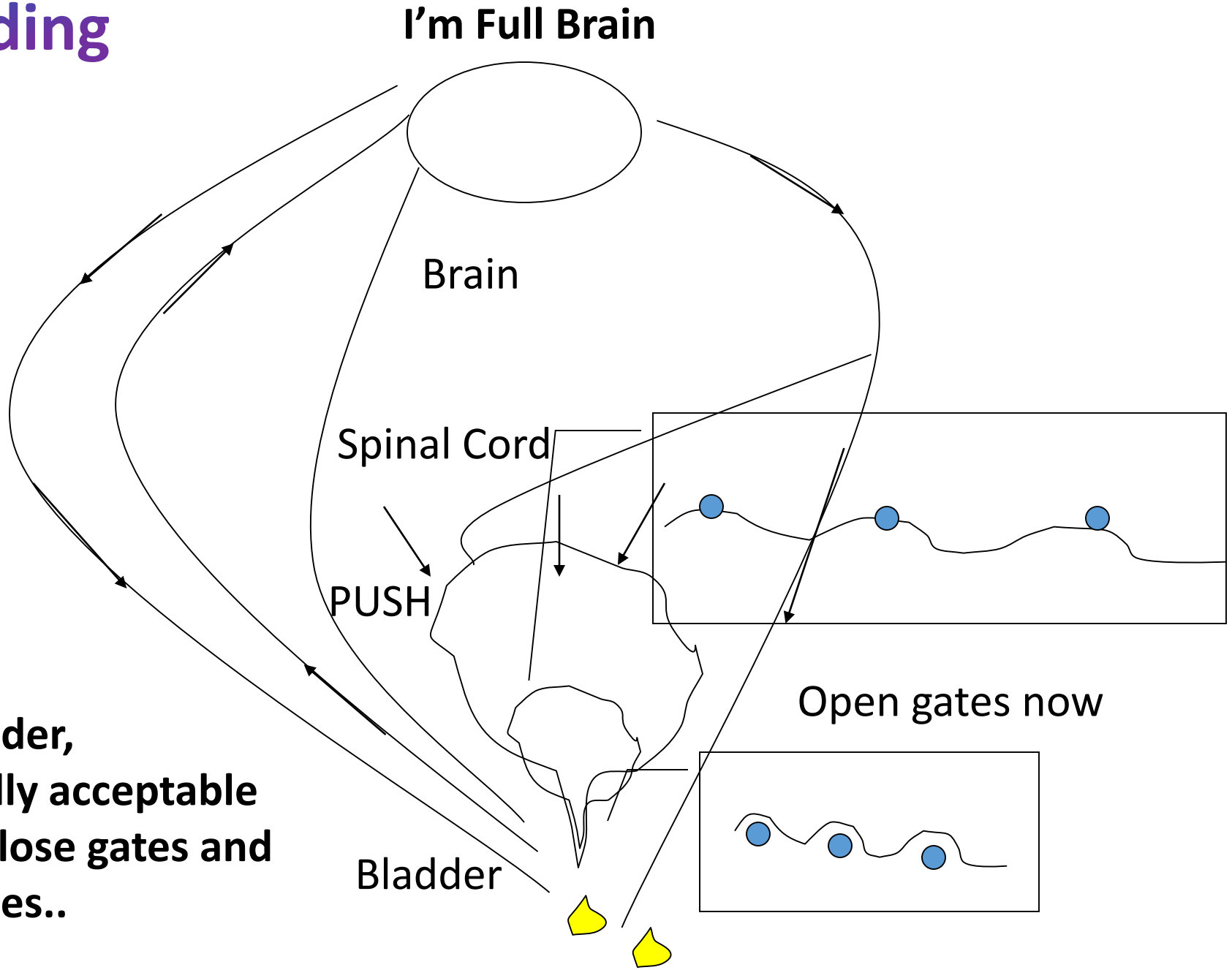
A lone

I solated

D ependent

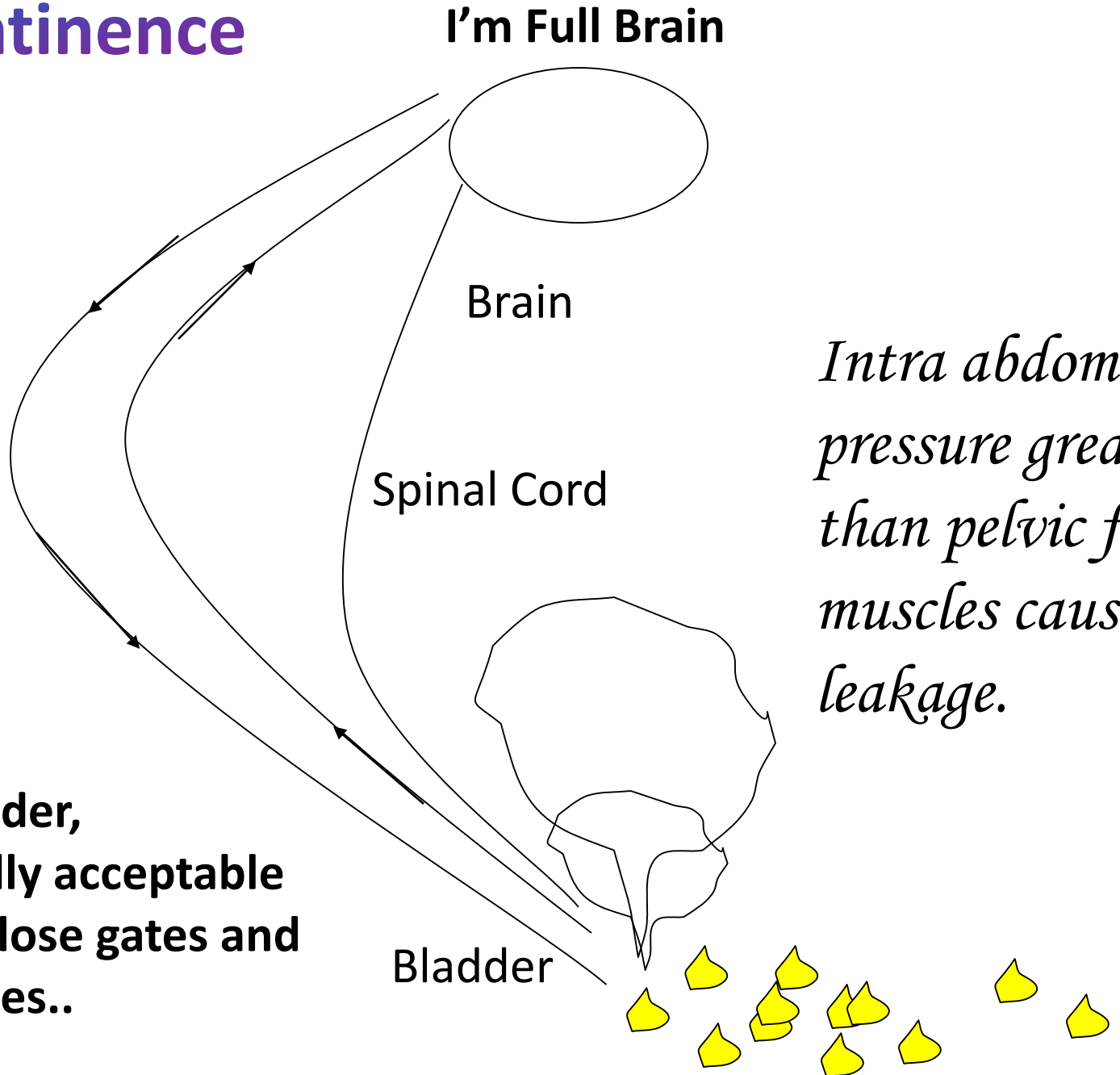
Normal Voiding

Normal Voiding



Not now bladder,
It is not socially acceptable to void yet…close gates and tighten muscles..

Stress Incontinence

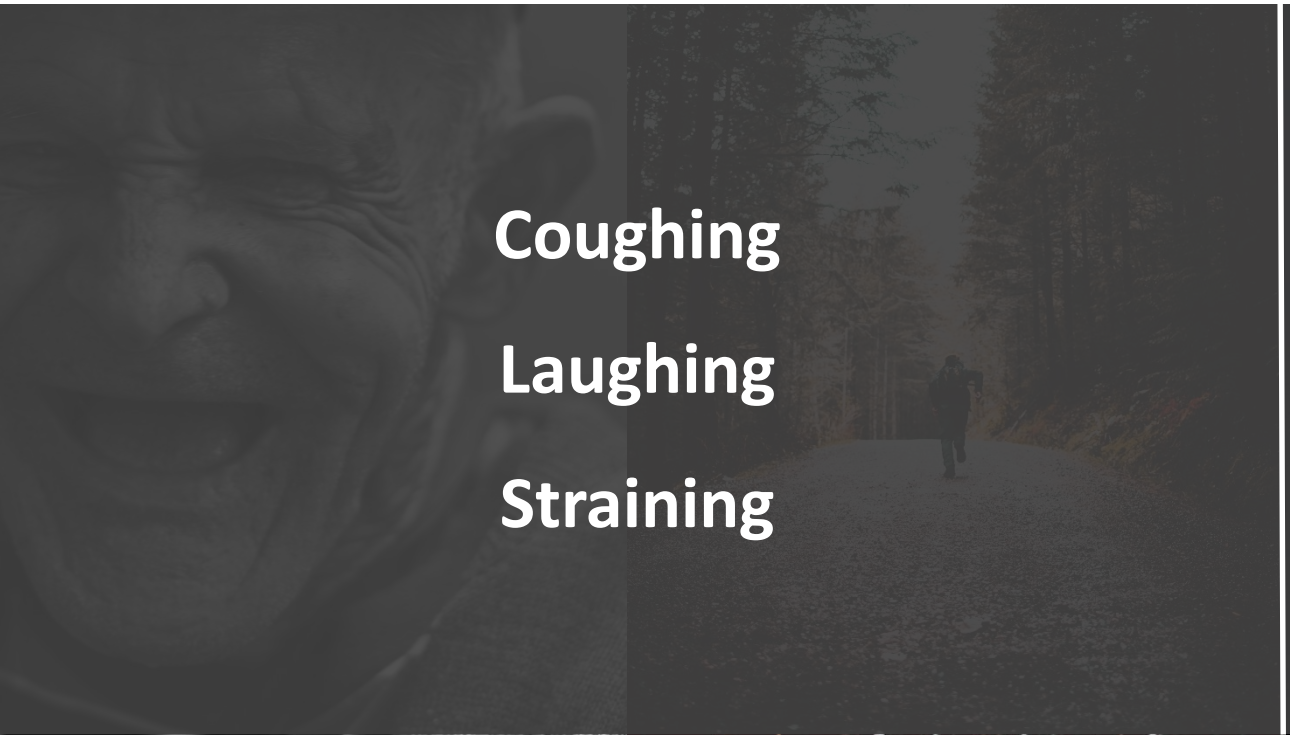


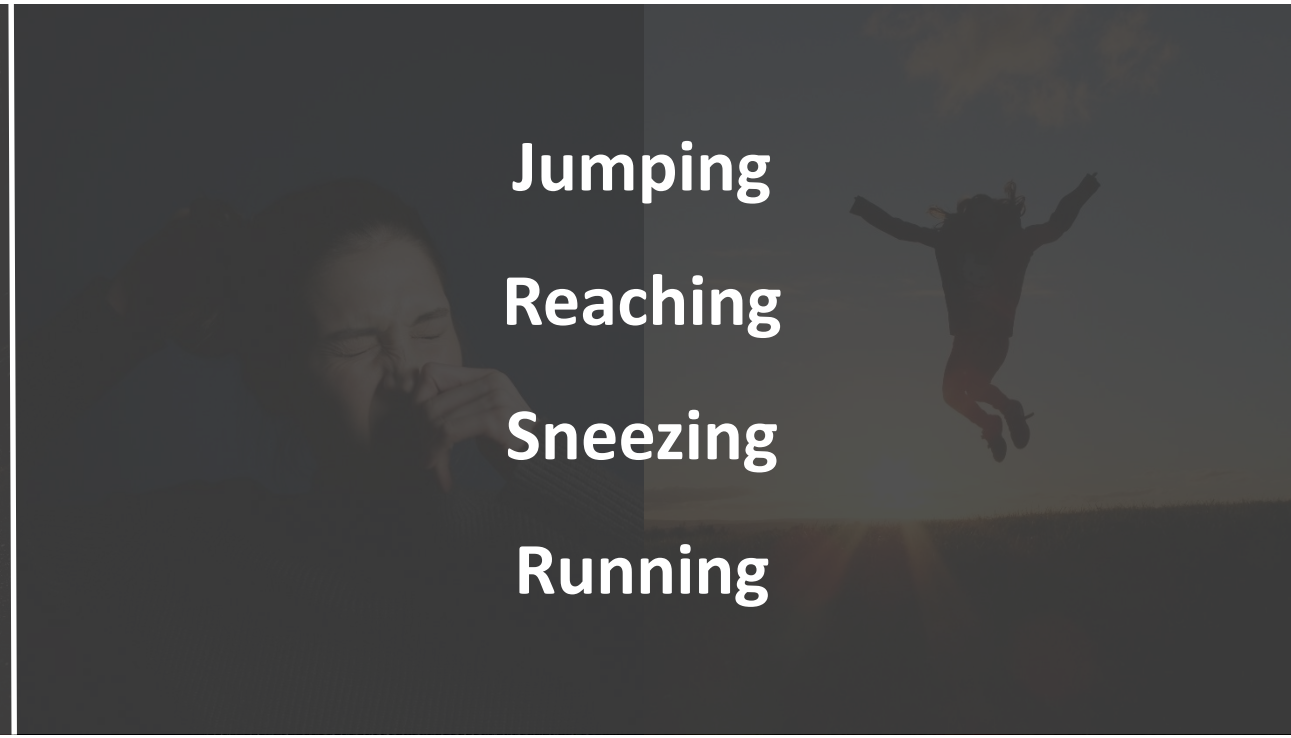
Intra abdominal pressure greater than pelvic floor muscles causing leakage.

Not now bladder,
It is not socially acceptable to void yet…close gates and tighten muscles..

Symptoms Of Stress Incontinence

Leakage occurs due to the increase of the abdominal pressure

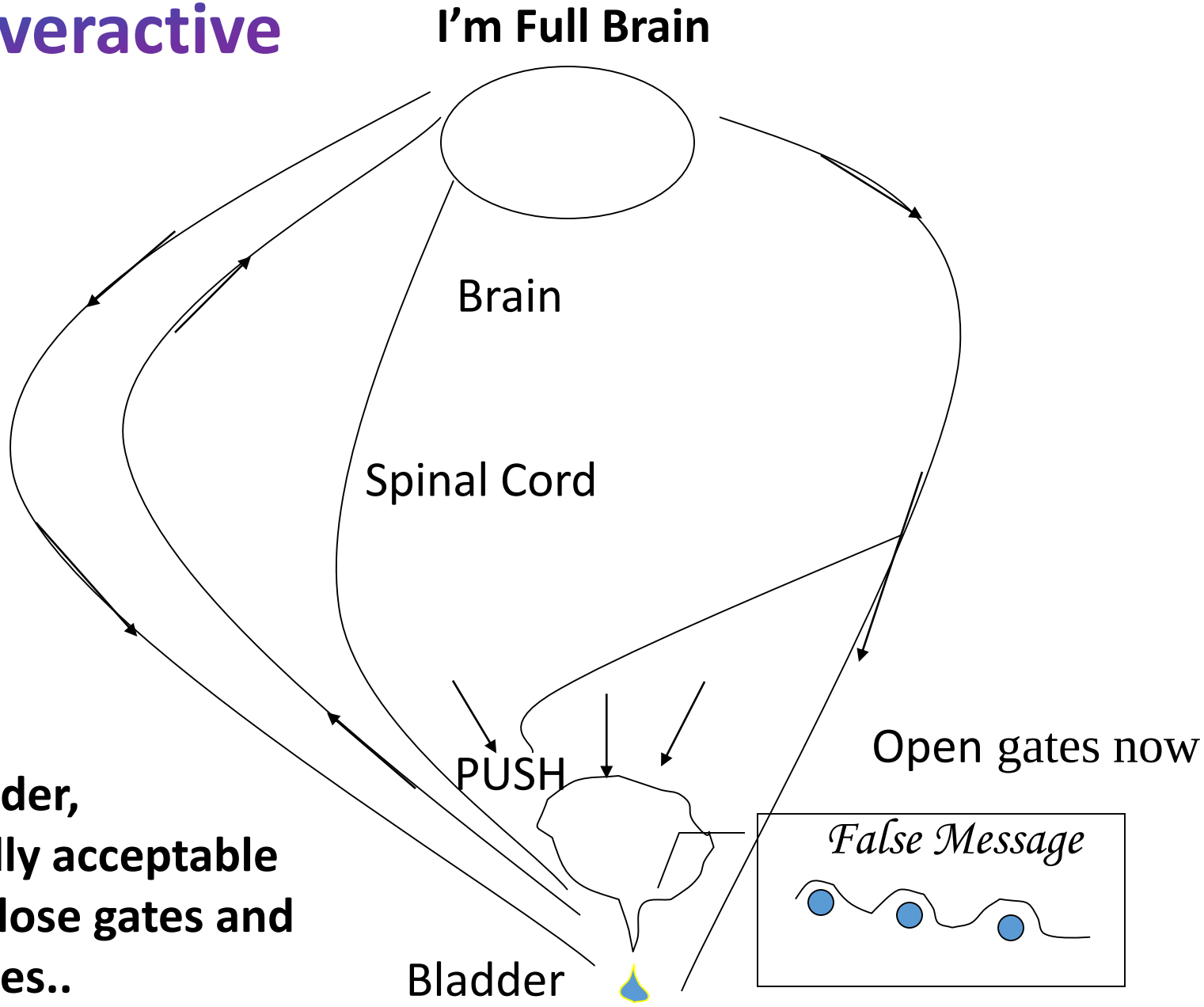




Cough, Laugh, Squirt Club

Thank God for all the years I have been doing my Kegels!

Urgency - Overactive



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Symptoms Of Urge Incontinence

There is a strong, sudden need to urinate, followed by a bladder contraction, which results in leakage.

- Triggers
- Running To The Bathroom
- Sudden Strong Urge
- Frequent Urination

Gotta go, gotta go NOW!!


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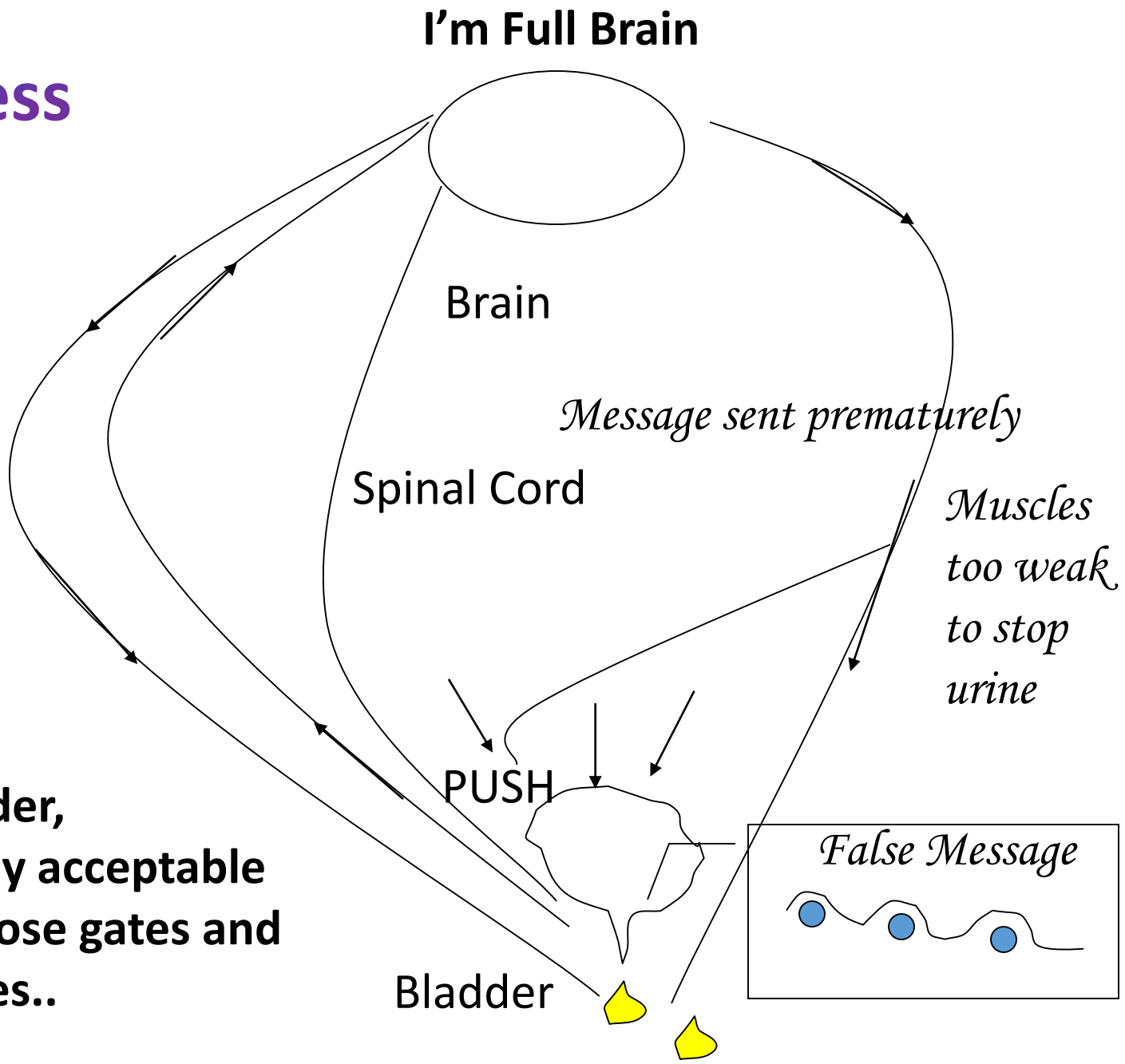
What Is Mixed Stress and Urge



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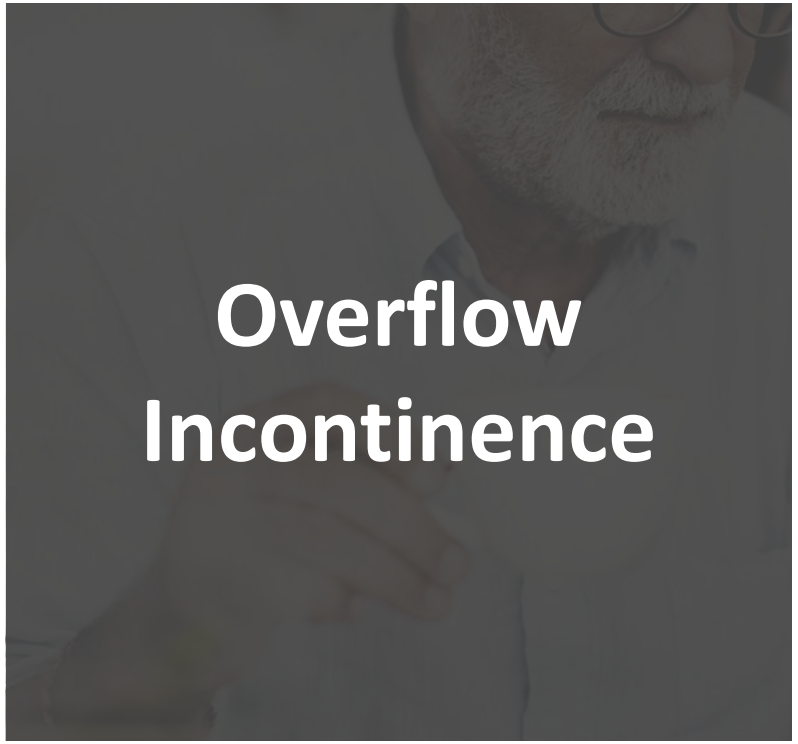


Overflow Incontinence

- Frequent or constant dribbling of urine due to a bladder that doesn’t empty completely
- The main cause of overflow incontinence is chronic urinary retention, which means inability to empty bladder. May need to urinate often but have trouble starting to urinate and completely emptying your bladder.

Overflow UI

(Retention Acute or Chronic)

- Bladder outlet obstruction
  - BPH
  - After anti incontinence surgery with a snug outlet
  - Prolapse
  - Strictures of the urethra
  - Foreign object
- Neurogenic cause-DM, MS, Spinal Stenosis

These People Need To Be Referred To Urologist

Treatments for Overflow Incontinence

- Check first for fecal impaction.
- Enlarged prostate-medication or surgery
  - TURP
- Intermittent catheterization
- Medication
  - Improve emptying or reduce blockage
  - Alpha adrenergic antagonists

Functional UI

- Normal lower tract
- Urine loss due to inability to get to the bathroom related to immobility or altered cognitive function
- Most often co-exists with other types of UI

Supportive Care—functional factors

- Environmental assessment and adjustments
- Assist devices -- for restricted mobility
- Fluid modification
- Toileting programs—increased time to walk to BR
- Preventive skin care
- Absorptive undergarments
- External collection devices
- Environmental adaptations- PT/OT, foot wear, clothing modifications, lighting, rid of rugs, etc

Routine Scheduled Toileting (RST)

- Patient taken to bathroom at a predetermined schedule, usually q 2-4 hours
- Staff/CG focus vs. patient focus
- Most LTC patients are candidates for RST
- Appropriate candidates include
    - cognitively impaired
    - cooperative
    - unable to communicate the need to void/defecate
    - lacks motivation to be continent.

Treatments

Various treatment options may be appropriate for several types of incontinence

- Medications
- Bladder training
- Surgery
- Catheterization (long or short term)
- Pads
- Pelvic Floor Muscle Exercises

Strategies for Specific Problems

- Stress UI-Teach PME
  - Provide toileting assistance and bladder training.
  - Consider referral to other team members of meds or surgery are warranted
- Urge UI
  - Implement bladder training or habit training
  - PME

Pharmacological Treatments

Pharmacological Treatments

- Anticholinergics
  - Calm overactive bladder
  - May help for urge

- Examples
  - Oxybutynin (Ditropan XL)
  - Tolterodine (Detrol)
  - Darifenacin (Enablex)
  - Festerodine (Toviaz)
  - Solifenacin (Vesicare
  - Trospium (Sanctura)

- Mirabegron (Myrbetriq)
  - Treat urge incontinence
  - Relaxes bladder muscle
  - Can increase amount held
  - Can increase amount urinated
  - Helps to empty better

- Alpha Blockers
  - Men with urge or overflow to relax the bladder neck muscles and muscle fibers in prostate to allow for easier emptying
    - Tamsulosin (Flomax)
    - Alfuzosin (Uroxatral)
    - Silodosin (Raphaflo)
    - Doxazosin (Cardura)
    - Terazosin (Hytrin)

Behavioral Techniques

Behavioral Techniques

- Bladder Training
  - Delay urination after you get the urge
  - Hold off for 10 min after urge felt
  - Goal is to lengthen time to every 2.5 to 3.5 hours between voiding's

- Double Voiding
  - Helps learn to empty bladder more completely (avoiding overflow incontinence)
  - Urinate then wait a few minutes and try again

Behavioral Techniques

- Scheduled toilet trips
  - Urinate every two to four hours rather than waiting for the need to go

- Fluid and diet management
  - Cut back or avoid alcohol, caffeine or acidic foods
  - Reduce liquid consumption
  - Loose weight or increase physical activity

Ring
For mild, first-degree uterine prolapse or for a cystocele.

Cube
For second or third-degree uterine prolapse. (To be removed each night).

Donut
For third-degree prolapse. (Not to be deflated during insertion or removal).

Dish
For stress urinary incontinence, with mild prolapse.

Shaatz
For mild prolapse complicated by a mild cystocele.

Gellhorn
For third-degree prolapse.

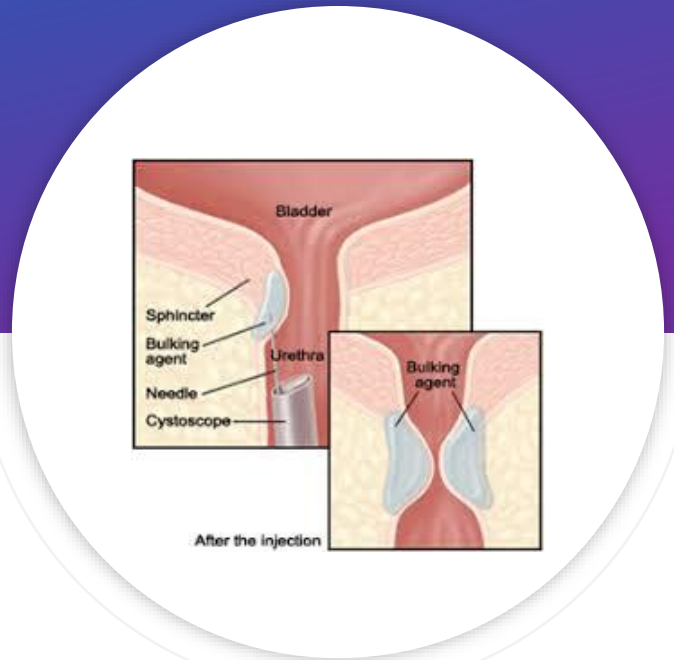
Ring With Knob
For stress urinary incontinence.

Pessary

Inserted into the vagina like a tampon
Presses against and supports the urethra
Multiple types for multiple types of incontinence

Injections

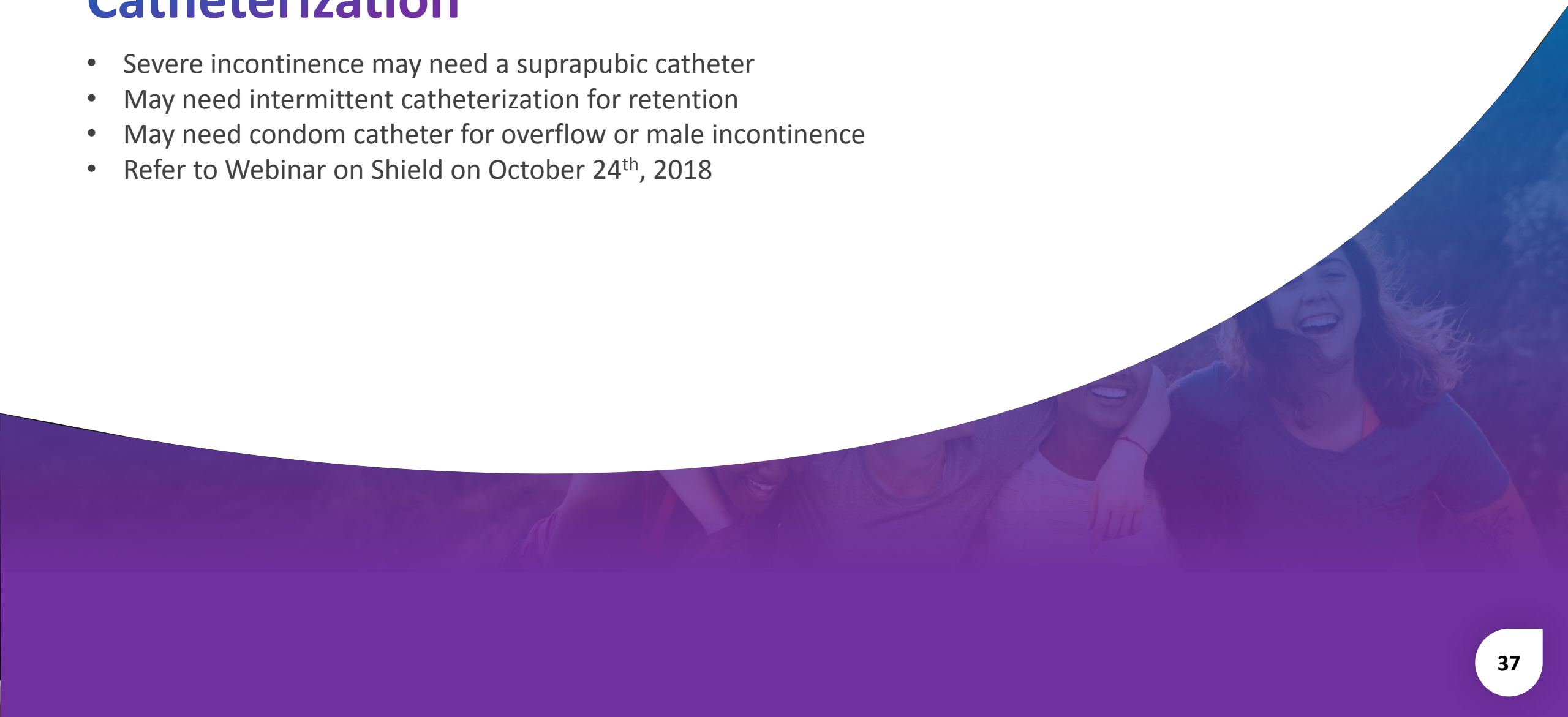
- Synthetic materials are injected into the tissue around the urethra
- Support and tightening the bladder neck
- Material is injected through a thin needle from a scope inserted into the urethra
- Takes less than 20 minutes
- May take two or three more injections to get desired result



May improve symptoms but usually does not result in complete cure in incontinence

Catheterization

- Severe incontinence may need a suprapubic catheter
- May need intermittent catheterization for retention
- May need condom catheter for overflow or male incontinence
- Refer to Webinar on Shield on October 24th, 2018



Surgery (SUI)

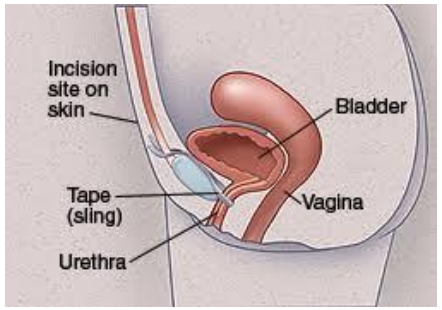
- Multiple traditional surgical procedures
  - Retropubic suspension
  - Needle bladder neck suspension
  - Anterior vaginal repair
  - Sling procedures
  - Periurethral bulking injections (ISD)
  - Artificial Urinary Sphincters-male and female
- Newer approaches
  - Tension-free Vaginal Tapings
  - Sparc, Monarc Sling

Surgery – Vaginal Sling Procedure

- Vaginal sling procedures use different materials:
  - Tissue from the body
  - Tissue from a cadaver body
  - Tissue from a pig or cow
  - Synthetic material known as mesh
  - Either general anesthesia or spinal anesthesia is used
  - A catheter is placed in your bladder to drain urine from your bladder

Vaginal Sling Continued

- One small surgical incision is made inside the vagina.
- Another small incision is made just above the pubic hair line or in the groin. (Most of the procedure is done through the cut inside the vagina.)



Vaginal Sling Procedure

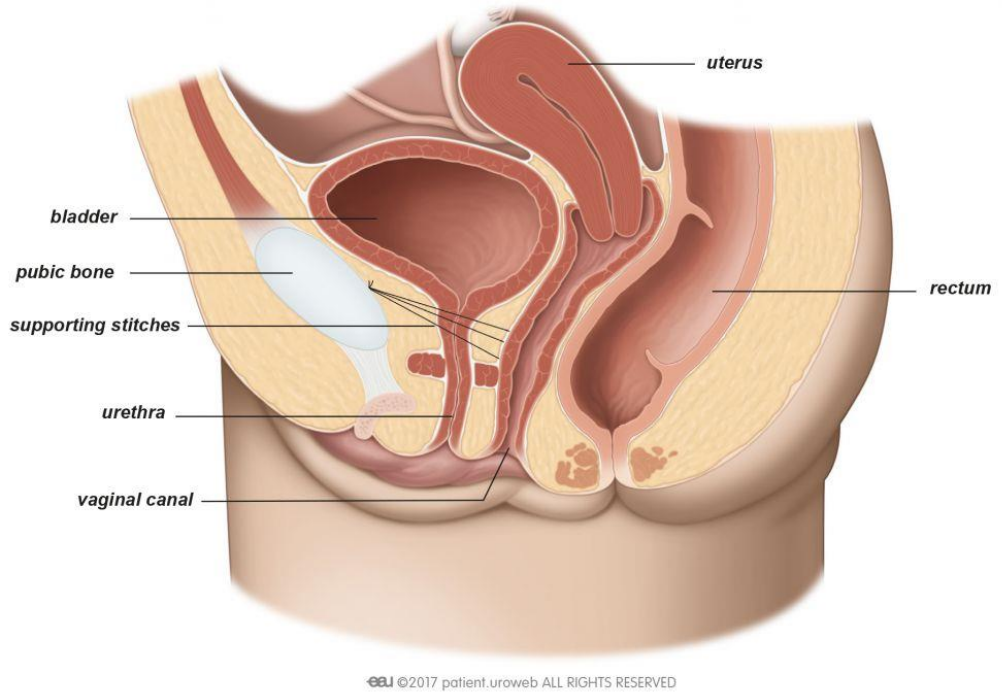
A sling is made from the tissue or synthetic material.
The sling is passed under the urethra and bladder neck and is attached to the strong tissues in the lower belly, or left in place to let the body heal around and incorporate it into the tissue.

Side Effects Of Bladder Sling Surgery

- Discomfort
- Constipation
- Temporary bleeding
- Irritation of the site of incision
- Minor pain

Colposuspension — Burch Procedure

- Part of the urethra nearest to the bladder is restored to its normal position
- Bladder neck supported with a few stitches on either side of the urethra



Burch Procedure

One of the main risks are that the stitches may be too tight and patient cannot urinate.

Treatment for Over Active Bladder

- Behavioral
  - Urge inhibition/suppression
  - PME
  - E-Stim
  - Fluid and Diet changes
  - Bladder training
- Medications to relax the bladder

Modify Fluid Intake

- For urgency and frequency, important to avoid caffeinated and carbonated drinks
- Avoid ETOH, citrus juices, tomatoes, highly-spiced foods, artificial sweeteners, sugar, milk products may be bladder irritants….. drink plenty of plain water

Moderation Is The Key!

Inhibit The Urge

- Urge Curve:
    - Urge starts slowly, peaks, and goes away

Never ever run to the toilet when feeling urgency

1. Stop, do not move.
2. Squeeze your pelvic muscle quickly 3-4 times
3. Breathe, exhale slowly
4. Relax & distract yourself

Proceed to bathroom once the urge subsides completely.

FREEZE…..SQUEEZE…..BREATHE!!

Pads

Benefits

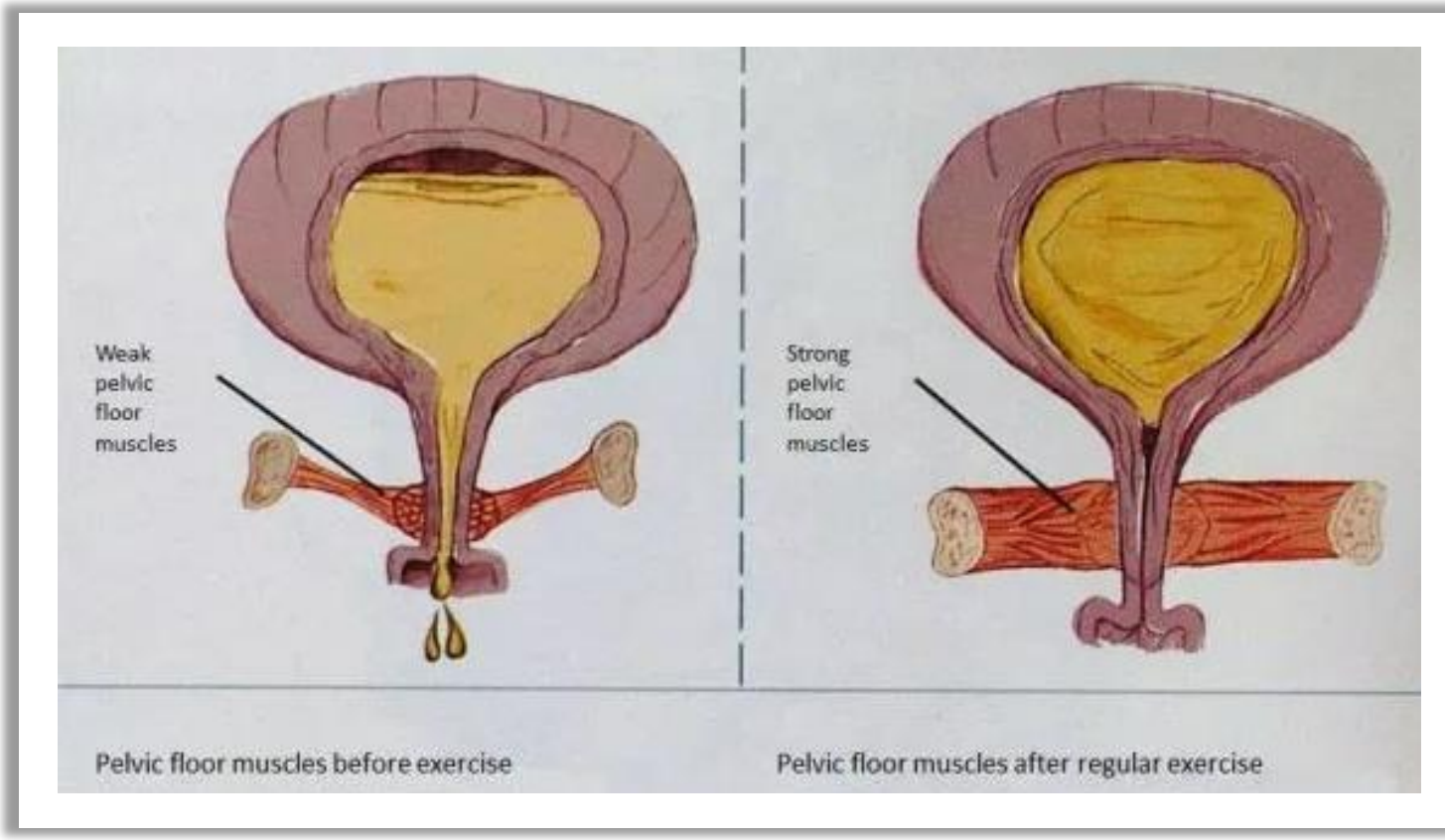
- Cost up to 40% less than pull on briefs
- Pads are more comfortable and not as hot as briefs
- More discreet than briefs
- Women feel normal wearing pads vs briefs
- 1 in 3 women are wearing some form of pad

Side effects

- Yeast, frequent urinary tract infections
- Urethritis
- Difficult disposal

Pelvic Floor Muscles

- Weak Pelvic muscles allow for the urethra to open
- Strong pelvic muscles hold up on the bladder neck and keep the urethra closed



Best results from PME(Kegel)

- Men and women with mild to moderate stress and/or urge incontinence
  - PME for 4-12 wks, 25% cured of SUI while 75% report 50% improvement!
- How to Accomplish PME?
  - Independent exercise program
  - Teaching/coaching with audio tape/CD
  - Biofeedback assisted PME
    - Work with a coach
  - Weight vaginal cones

Parent Selection Criteria

- **Best candidates for PME**
  - Intact anatomic support
  - Absence of significant prolapse
  - Intact innervations and muscle contractility

- **Recommend a graduated strength training Program**
  - Must learn to identify muscle
  - Strengthen muscle
  - Learn the ‘Knack’

Doughty & Burns, 2006, Pathology & management of stress incontinence In DB Doughty (ed.) Urinary and fecal incontinence Current management concepts 3rd ed. St. Louis, Mosby. (pp 90-93)

How to Identify that Muscle

- First try during a vaginal or rectal exam to coach the patient to squeeze around your finger.
  - Avoid holding breath, bearing down, assessor muscle usage
- Try to interrupt stream or hold back gas
  - Do not do the exercises during urination

How to Identify that Muscle

- **Difficulty finding it?**
  - Biofeedback assisted PME
  - Electro-stimulation to identify
  - Squeeze thigh/knees together (adduction) with a ball to recruit PM or exercise band (abduction) against resistance
    - Best for LTC residents
    - Anecdotal reports

PME’s continued

- Ultimately 10 Kegels with a 10 second contraction and 10 second of relaxation

- Do this at least 3 times a day in different positions (sitting, standing, lying)
  - Do not use abs or gluts
  - Do not hold your breath

PME/Kegel Exercise

- No standardized exercise protocol
- Goal of Program to help enhance endurance and increase contraction strength thus reduce SUI
  - Most clinicians agree to 30-45 repetitions a day
  - Combo of fast twitch (type 1 fiber) and slow twitch (type 2 fiber) contractions
    - Fast twitch or Quick flicks (type 1) promote a fast maximal contraction
    - Slow twitch (type2) promotes endurance

The Knack

- Quick and strong contractions of the pelvic floor muscles immediately before physical exertion
  - i.e., cough, lifting, or sneezing
- Prevents/reduces leakage during activity
  - Prerequisite is to be able to do PME correctly

Weighted Vaginal Cones

- Start at the lightest weight
    - 5 weights (20-70 gms)
- Move to next weight when able to hold on and keep in place while walking for 15 minutes
- Perform 2-3 more times a day

Acute Prolapse

- Causes incomplete emptying

- Symptoms include:
  - urgency
  - frequency
  - retention

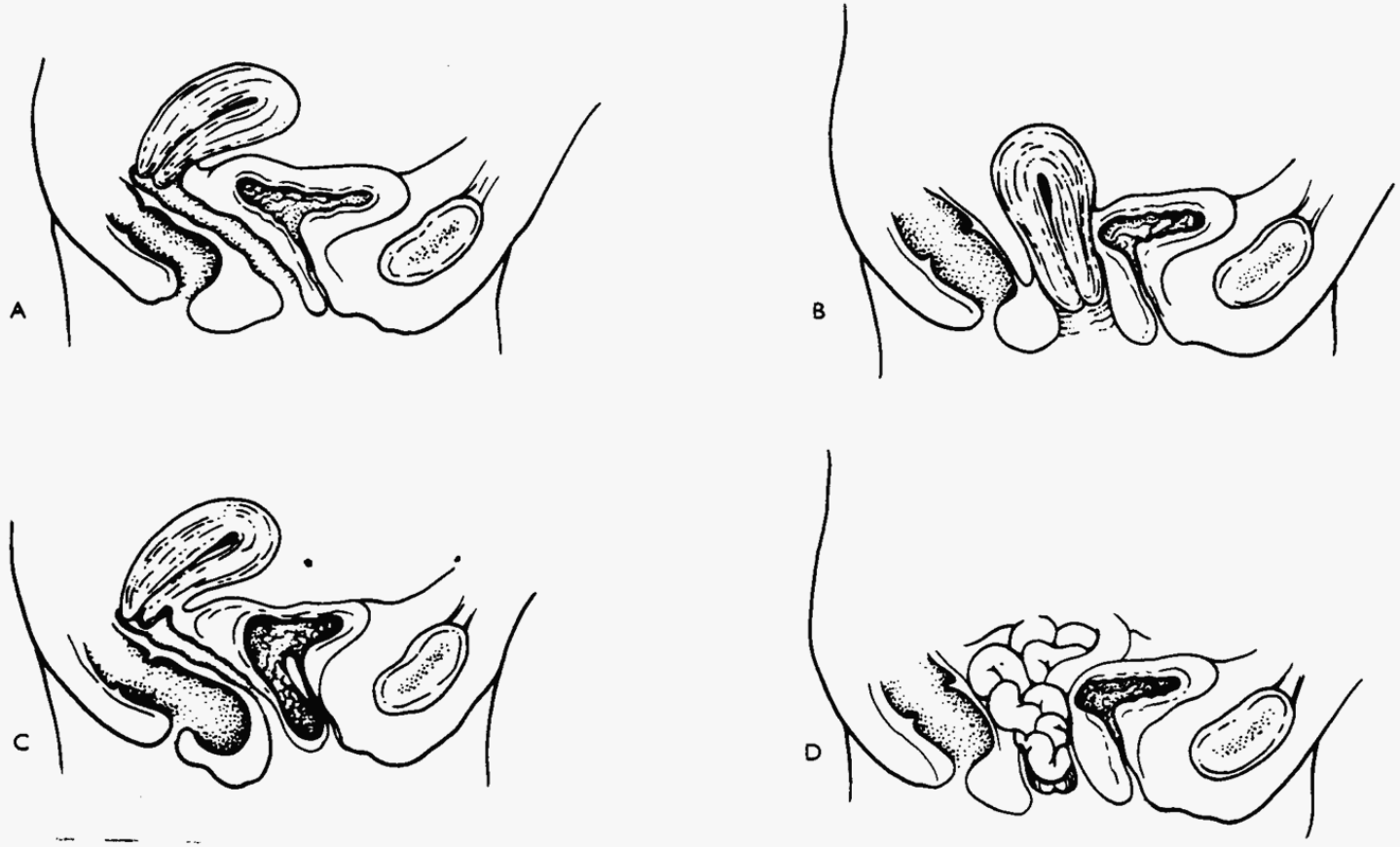
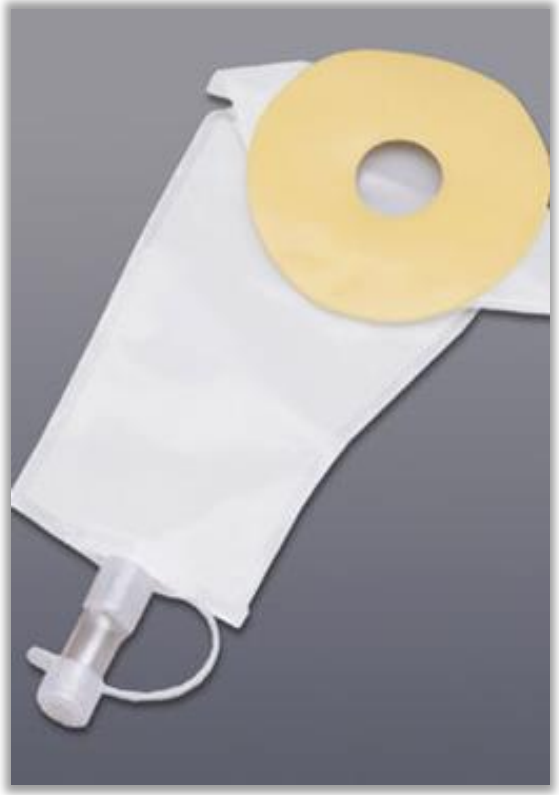


FIG. 42-2 *Types of prolapse.* ***A,*** *Pelvic organs with normal support.* ***B,*** *Uterine prolapse with good support of anterior and posterior vaginal walls.* ***C,*** *Cystocele and rectocele with good uterine support.* ***D,*** *Posthysterectomy vault prolapse with enterocele.*

Urethral Occlusive Device Just for Men

- Penile Clamps, cuffs or Compression Devices
  - Purpose is to compress urethra to obstruct flow of urine
    - Candidates: Men with post prostectomy SUI
      - Intact sensation, intact cognition, manual dexterity, adequate floor flow
- Newer Products
  - Freedom Value Penile Compression Device
  - AntiCuff by GT Urological
    - May be more comfortable and small pouch to collect drops



Pelvic Floor Muscle Exercises

- Identify the muscles
  - May need to stop stream to find, but only once
  - May need to put in finger and feel
- Do not tighten abdomen or buttocks
  - Pull up like stopping stream

- Tighten and relax—in 5 sec, out 5 sec.
- Continue three times per day increasing to 10 sec
- Continue holding 10, relaxing 10 for at least 10 repetitions three times per day for maintenance

References

1. Deb Thayer, MSN, CWOCN 3 M –for various slides and information
2. HCPR Guidelines for Care of the Incontinent Patient
3. Mary Palmer, et.al.
4. Basic Continence Competencies II Management strategies to promote continence for the WOC nurse..Joann Ermer-Seltun, RN, MSN, ARNP, CWOCN, Mercy Medical Center, Mason City, Iowa
5. Channing Division of Network Medicine, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, Boston, MA 02115, USA. nheed@channing.harvard.edu
6. Ten-Year Prevalence and Incidence of Urinary Incontinence in Older Women: A Longitudinal Analysis of the Health and Retirement Study E. A. Erekson MD, MPH X Cong PhD, MPH M K.Townsend ScD M M. Ciarleglio PhD First published: 20 June 2016
7. The American College of Obstetricians and Gynecologists—Frequently asked questions for special procedures

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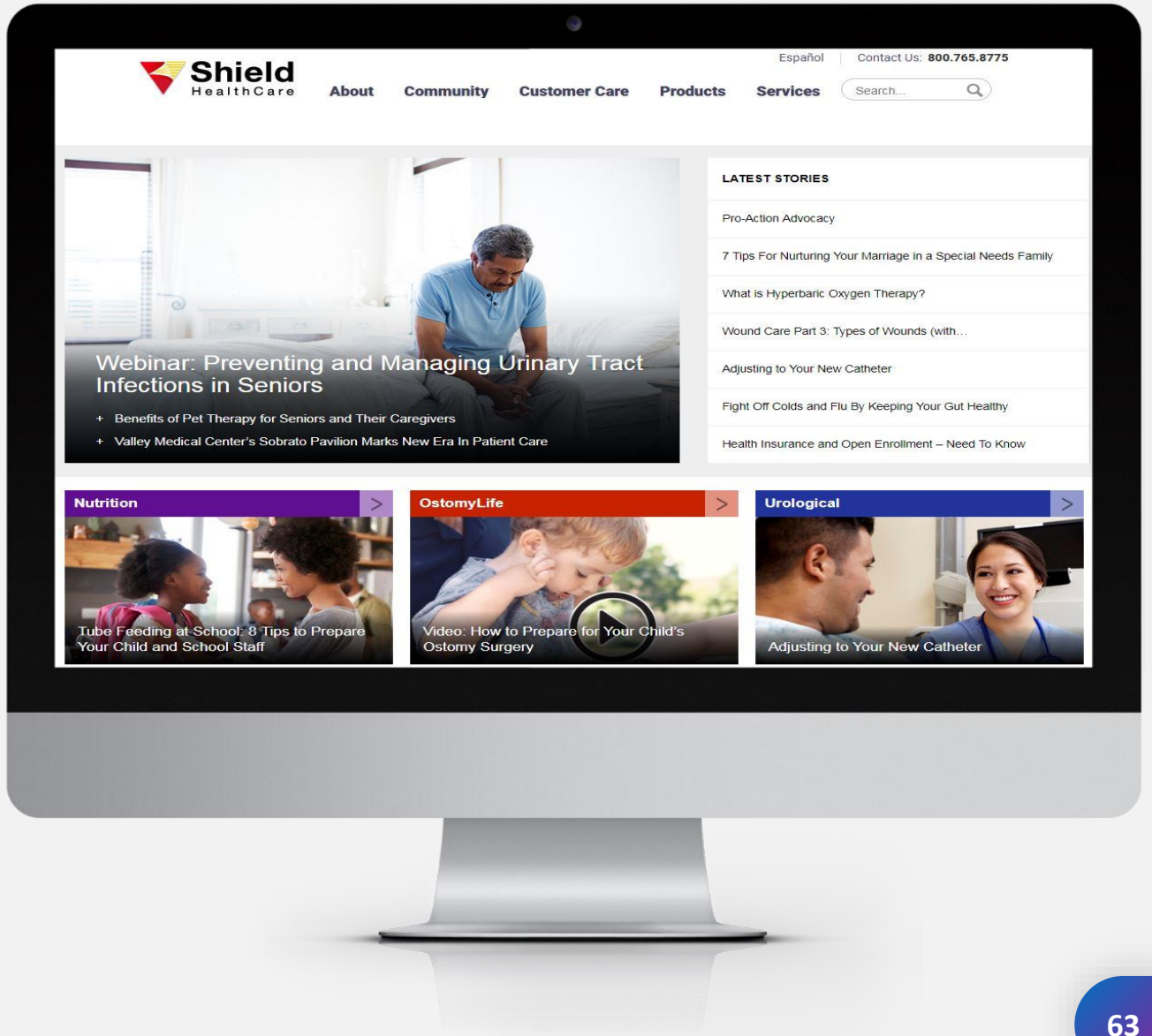


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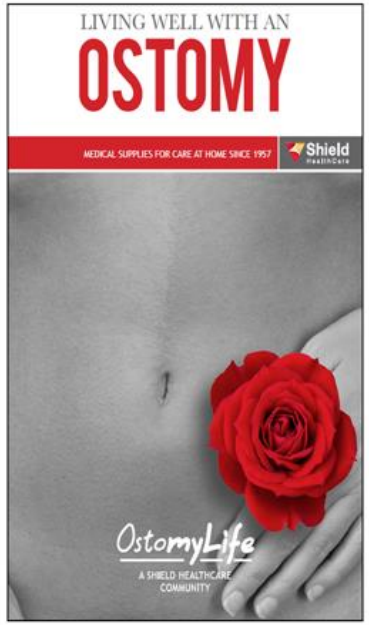

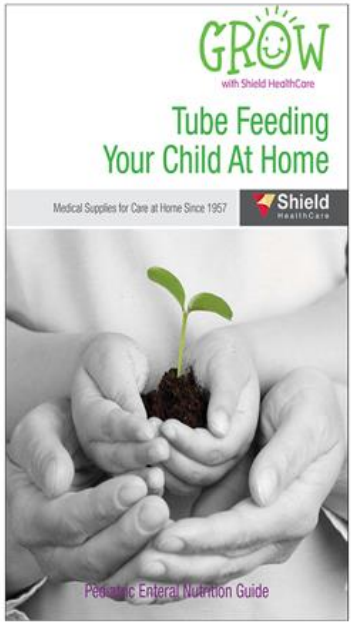

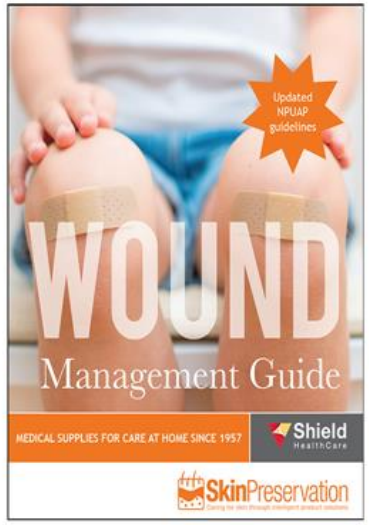

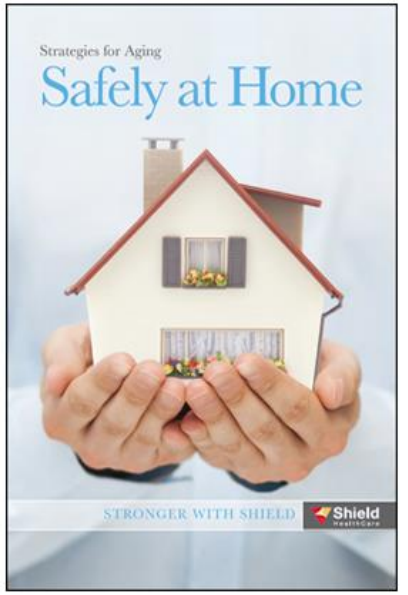

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