Continence Management for Physical and Occupational Therapy

Presented by: Karyn Michalski, BS/MS OTR/L PRN Physical and Occupational Therapy Montgomery Park

Continence Management

- Continence- a state in which a person has the ability to store urine and void at a socially acceptable place and time
- Incontinence- involuntary or unwanted loss or leakage of urine
- CMS statement: "Urinary incontinence is NOT a normal part of aging. It is a symptom of a condition and is often reversible"

Prevalence

Over age 65 there are over 13 million men and women in the US alone affected by incontinence

The costs per year exceed \$27 billion dollars in both indirect and direct costs including specialists, medications and products

Example: 1 pack of extra absorbent Poise pads (60 count) is approximately \$48

Consequences

- Embarrassment
- Social limitations
- Daily activity limitations
- Burden of care increases (ALF, SNF)
- Depression
- Risk of abuse (from family and staff)
 - Frustration, misunderstanding causes, not on purpose
- Disrupted sleep and resultant fatigue

Consequences

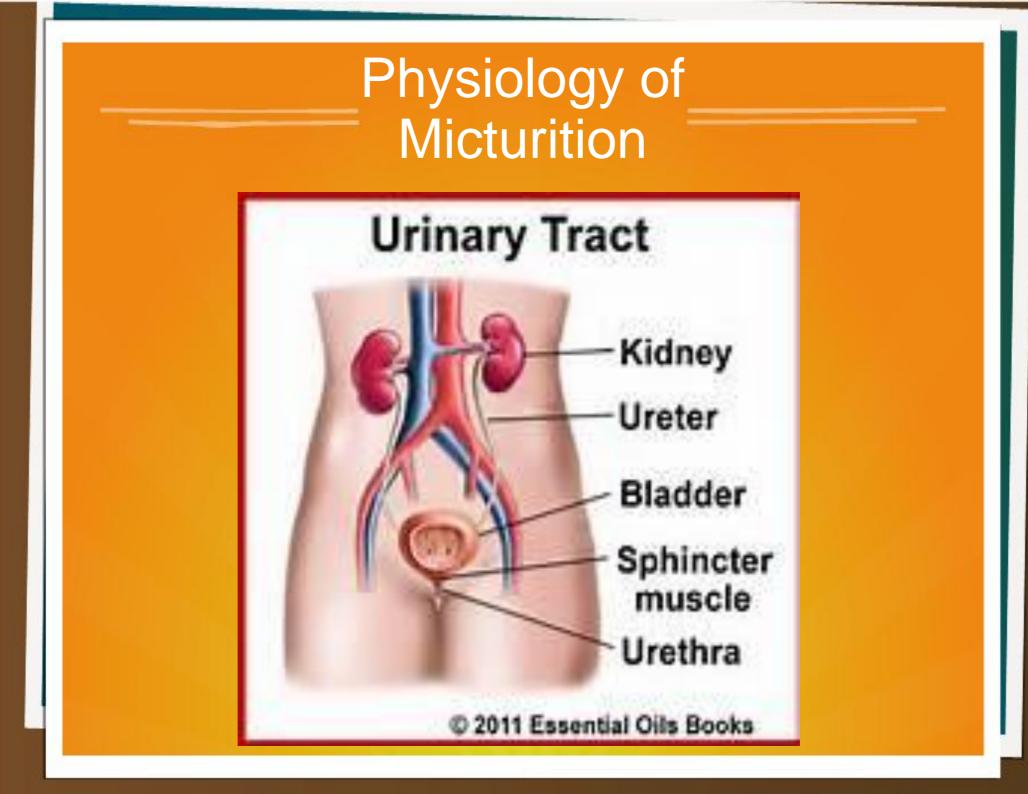
- Increase risk of falls
 - Urge incontinence and nocturia (night voids)
 - Risk increases as number of urge and nocturia episodes increase
- Skin integrity compromised
- Increase risk of pressure ulcers

Risks for Incontinence

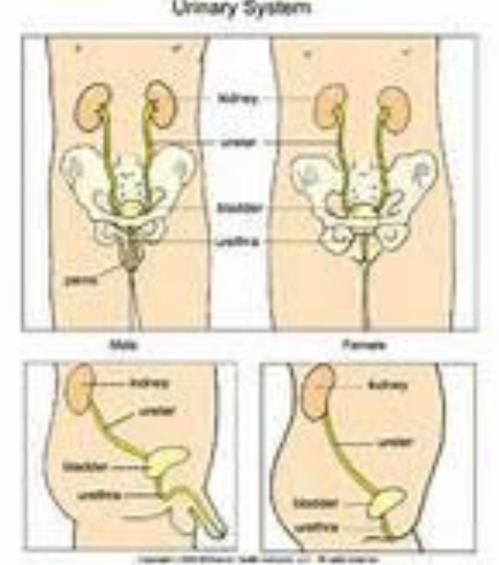
- Decreased mobility resulting in muscle weakness
- Lack of micturition (emptying bladder) sensation
- Impaired cognition-PD, CVA, TBI, MR, dementia
- Intake of bladder irritants
- UTI

Increase post void residual (PVR)

Drug side offects



Male vs. Female Uninary System

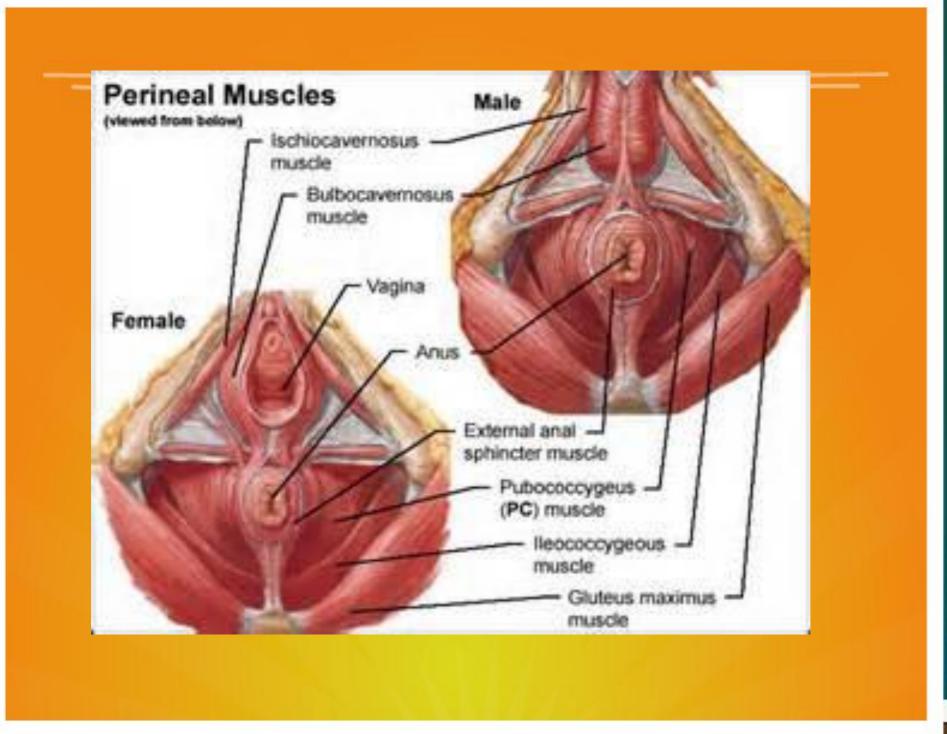


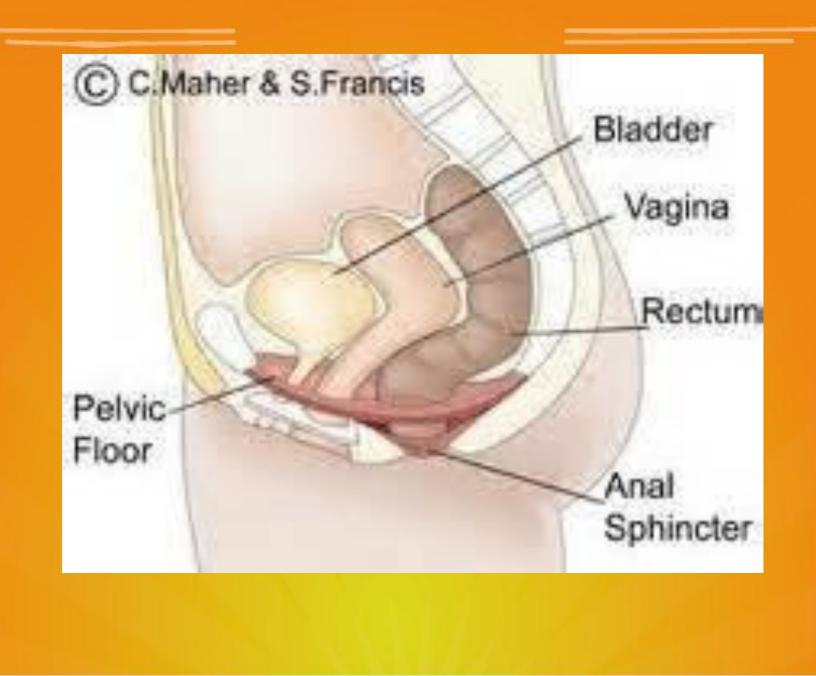
Pelvic Floor Muscles

- Pubococcygeal
- Iliococcygeal
- Ischiococcygeal
 - Function in a sling like fashion, maintaining a constant low level contraction for the support of internal organs

Sphincter Muscles

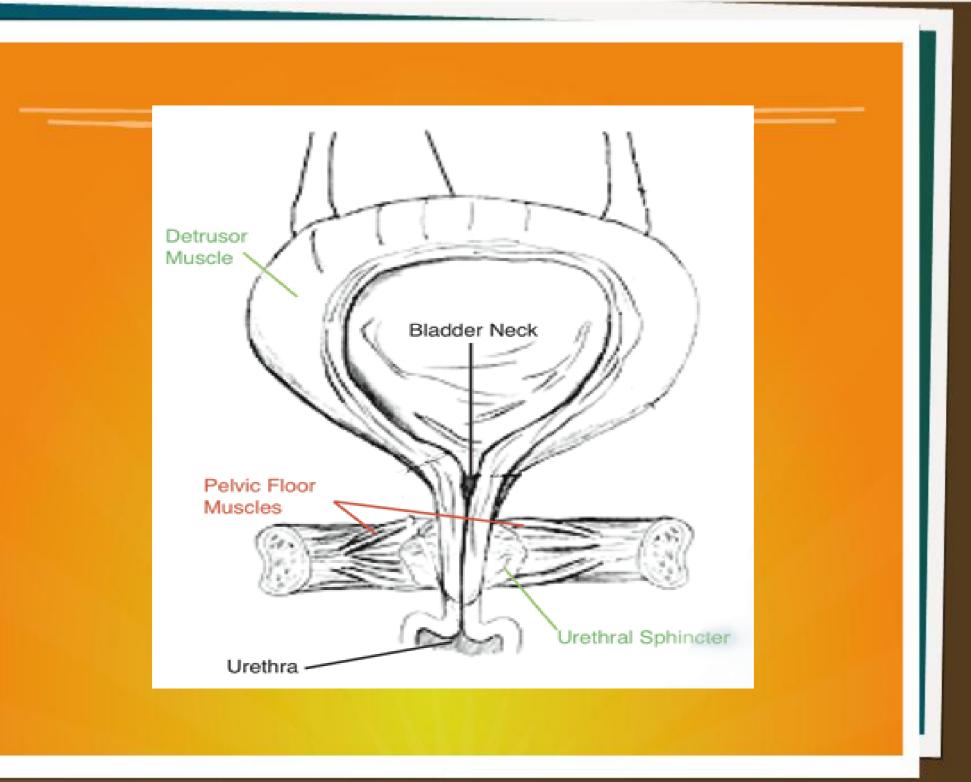
- External urinary and anal sphincters
- Internal urinary and anal sphincters





Normal Bladder Filling

- To prevent urine loss as the bladder fills there is a gradual increase in urethral resistance due to sensory input from T10 to L2
- The Pelvic Floor Muscles (PFMs) stimulated by the autonomic and voluntary nervous systems return a low level of tonic contraction which helps to maintain continence
- Detrusor muscle remains relaxed



Bladder Emptying

- When the bladder is full the stretch receptors in the bladder sense fullness (T10-L2)
- The brain releases inhibitory control and a voluntary micturition reflex occurs initiating the detrusor contraction of smooth and striated muscles of the sphincters

Types of Incontinence

- Stress
- Urge
- Mixed (urge and stress)
- Overflow
- Functional

Stress Incontinence

- Leakage of small amounts of urine during physical movement (coughing, sneezing, exercises, etc...)
- Causes:
 - Incompetent urethra
 - Weak PFMs
 - Neurologic dysfunction (reaction time slow)
 - Denervation injury of PFM (pregnancy, traumatic delivery, surgery)
 - Neural wind down

Urge Incontinence

- Involuntary loss of urine associated with a strong desire to void (urgency " gotta go right now")
- Leakage of *large* amounts of urine at unexpected times caused by:
 - UTIs, cystitis, bladder tumor, stones, irritation (diet)
 - Decreased sensation of fullness
 - Neurologic dysfunction (CVA, PD, MS, dementia)
 - Often happens during sleep, after drinking water, or with touching or hearing running v

Mixed Incontinence

- . The occurrence of stress and urge together
- Caused by:
 - Disuse atropthy of the uro-genital system
 - Lack of mobility
 - Typically present in the frail elderly with neurologic diseases previously listed

Overflow Incontinence

 Unexpected leakage of small amounts of urine because of a full bladder but *without* physical movement (protects kidneys from backflow)

- Causes:
 - Outlet obstruction (fecal impaction, BPH)
 - Peripheral neuropathy
 - Weak detrusor

Functional Incontinence

- Untimely urination because of physical disability, external obstacles, or problems in thinking or communicating that prevents a person from reaching the toilet
- Causes:
 - Impaired mobility
 - Dementia (communication difficulties)
 - Depression
 - Caregiver, toilet and /or toilet substitutes not available

Bladder Function Norms

- Average bladder capacity
 - 300-600cc (10-12 oz.)
- Average voids per day 4-8 times/ 24 hrs
 - Elderly changes to 5-10 times/ 24 hrs
- Nocturia: seldom or 1x
 - Elderly changes to 1-2 times
- Average time from initial urge until bladder reaches capacity should be 1-2 hours

Symptoms of Urinary Dysfunction

- Decreased bladder capacity & contractility
- Decreased ability to postpone voiding
- Prostate enlarges in men
- Urethral closure pressure decreases in women
- Involuntary detrusor muscle contractions
- Elderly excrete majority of fluid at night
- Muscle disuse atrophy of PFMs & sphincters

CI Program Implementation

Marketing

- Brochures for each facility
- Leave information about program to each new resident with small marketing gift
- Current caseload (700 form question)
- Referrals from current patients
- Local marketing to doctors' offices (gyn/ ob, urologists, general practices)
 - Letters of introduction and informative luncheons
- In-house seminar (relate risk of falls)

Therapy Overview

- 8-12 week program
- Basic PME's (pelvic muscle exercises) and training
- Enhanced PME and E-STIM (as tolerated)
- Patient education of diet management, fluid management, medication analysis, and behavior modification (habit changing)

Benefits of Therapy

- Decrease UI episodes and volume of urine loss
- Cost reduction for incontinence supplies
- Decrease number of voids per day or night
- Improve quality of life with psychosocial aspects
- Increase independence, self-esteem and dignity
- Decrease risk of skin breakdown and pressure ulcers

Designed and the state of falls and free structures

Evaluation

- Use assessment tool questionnaire to determine types of UI
- Complete 700 form with additional test and measure for Continence Improvement (CI)
- 24 hour voiding diary to be completed by patient
- Identify cognitive barriers
- Can be either OT or PT or both
 - Example: OT for PFM training and PT for functional mobility to increase success to toilet

MD order

- Clarification order example:
 - PT/ OT for treatment of UI and pelvic muscle dysfunction to include the following:
 - Ther ex to the pelvic floor for 4 weeks.
 - If goals not reached, initiate E-STIM to pelvic floor musculature 3x/week for 6 weeks to decrease UI episodes

Where to Begin?

- Utilize the voiding diary to establish frequency, urges, UI episodes, product use, and intake of bladder irritants
 - To be completed at eval, 4 weeks and discharge as objective measure for improvement
 - Caregivers or families can assist
 - Most important information is the number of UI episodes

 Carry over information to the Test and Measures Assessment to be attached with

Where to Begin?

- Establish goals based on interview, voiding diary and patient goals
- If skin breakdown is present can use Braden Scale for additional supporting documentation
- Refer to goal bank

Billing

- ADLs (97535) used for fluid management, dietary modification, medication analysis, and behavior modification
 - Billable as ADLs for both OT & PT.
 - Can bill for and document clothing management, AE/DME training, safety environmental management (if needed)
- Therapeutic Exercises (97110) used for training of and performing PMES and associated musculature
- E-stim (G0283) used for PENS and MFAC

Nourseman outer readuration (07119) used

G-codes

Use Self-Care codes (G8987-G8989)

- GSE for UI (Geriatric Self-Efficacy Scale for UI) as assessment tool
- If unable to use the GSE, then use the Assessment questionnaire to rate on a scale of 0 to 10 for how much of a problem the leakage or urgency is (rating similar to pain scale)

Rehabilitation Treatments

Fluid Management

- Increase H2O consumption up to 64 oz per day
 - "Softens" bladder lining and decreases irritation causing urges
 - Urine should be *clear*, the more concentrate the more irritation
 - Discourage behaviors limiting water intake to avoid perceived frequent voiding

Dietary Influence

- Some foods and beverages cause irritation to the bladder
- Encourage avoidance or decrease frequency of consumption (see bladder irritants list)
 - Cranberry Myth: "eat cranberries, they are good for your bladder."
 - Highly irritating to the bladder and encouraged with UTIs *only* to increase frequency and flushing of the bladder

Other Factors

- Cigarette smoking is also irritating to the bladder and is associated with bladder cancer
- Coughing frequency with smoking may lead to stress UI episodes
- Obesity can also contribute to UI
- Avoid constipation with high fiber diet
- Alcohol not only increases urine output but also decreases the brain's ability to coordinate bladder control

Behavior Modification

- Educate on frequent changing of UI products to decrease skin irritation and odor
 - Discourage use of menstrual pads, use products made for urine
- Encourage good hygiene habits
 - Discourage wearing barrier products at nighttime (when possible) to allow skin to breathe and dry
 - Protect skin with moisture barriers (with physician's approval)

Behavior Modification

- Bladder Retraining
 - Can take up to 6 weeks
- Controlling urges
 - An urge is a signal to the brain felt as the bladder stretches
 - Felt even when the bladder is not full
 - Urges are not "commands" to go to the toilet, just reminders that can be controlled

Tips for Urgency

- Try to increase time between voids to 2 hours
- Encourage positive thoughts about bladder control
- Discourage rushing to the toilet and encourage feeling in control
- Avoid going "just in case"- leads to increased frequency and habit formation which decreases bladder capacity
- Suggest using distraction (start with even 10 mins and increase slowly)
- Encourage diaphragmatic breathing to relax
- Quick Kegels (2-5) to "answer" the urge & control

Therapeutic Exercise (week 1-4)

Address functional barriers as well as PFMs

- Lower extremities
 - Sit-to-stand, stand-to-sit, (quads and hamstring)
 - squats
- Upper extremities
 - Armchair push ups (biceps/ triceps)
- Standing balance and performance
- . Gait (speed and dynamic balance)
- Hand dexterity

Postural contection

PFMs

- Purpose: to improve function of the PFMs and associated musculature to allow bladder emptying and filling
 - Important to document purpose to establish medical necessity (in daily note example for WeDoc)
- Should include active, active assisted and/or resistive exercises to the pelvic floor and associated musculature
- CMS- documentation of 4 weeks of PMEs and associated muscle ther ex is

MANDATORY before e sum sented

CMS Coverage Decision

Program Memorandum AB-00-120

Non-implantable pelvic floor electrical stimulation is covered for the treatment of stress and/or urge urinary incontinence in cognitively intact patients who have failed a documental trial of pelvic muscle exercise (PME) training. A failed trial of PME is defined as no clinically significant improvement in urinary incontinence after completing four weeks of an ordered plan of pelvic muscle exercise designed to increase periurethral muscle strength.

Note: PM AB01-135 9-25-2001 directs that care shall not be withheld to the elderly based on dementia/cognitive impairment. It may be viewed at: http://cms.hhs.gov/manuels/pm_trans/AB01135.pdf

PFMs

- Kegels or Pelvic Muscle Exercise (PMEs)
- Muscles that faciliatate PMEs:
 - Transverse
 Abdominal exercise
 (TrA)
 - PFM contraction precedes TrA
 - Palpable contraction confirms PFM

CONTRACTION

Kegels

- Palpate externally just superior to the pubic bone and medial to the ASIS
- Start with 5 quick contractions to initiate fast twitch fibers and easier to palpate
- Try TrA contraction with a Kegel to improve quality of contraction
- If unable to appreciate, move on to associated musculature to develop Kegel quality

Have patient attempt the "stop test" to

E-STIM

- PENS (Patterned Neuromuscular Electrial Stimulation)
 - Non-invasive with surface electrodes
 - NO INTERNAL electrodes or probes
 - Well tolerated and comfortable
 - Proven to reduce urge, stress and mixed UI
 - Based on EMG repeat timing

 Know contraindications!!! (Pacemakers, Defibrillators, Deep Brain Stimulators, infusion pumps, implants with lead wires)

Electrode Placement

On the abdomen On the Erector Spinae between the umbilicus muscles just lateral to and the ASIS L2 - L4 spinous processes CHANNEL A R Over the medial condyle of the CHA femur and tibia with the center of the electrode perpendicular to the medial knee flexion fold CH B R CHB

PENS Fx2 Applications

- Provides neuro re-ed to the pelvic region
 - Improves coordination of the detrusor, sphincters, and pelvic floor
- Decreases hypersensitivity/ hyperactivity, urgency and frequency
 - Stimulates the spinal segmental nerves (T10-L2) for bladder and PFMs, thus reducing urge sensation

PENS Fx2

Improves micturition sensation

 PENS boots up sensation by reducing sensory nerve disuse atrophy (T10 to L2)

Strengthens pelvic floor musculature

 PENS targets fast twitch fibers and their motor control loops to restore fast closure of the external sphincter when abdominal activity increases rapidly with activity (stress UI)

Weeks 5-12 ===

- Continue to address functional barriers
 - UE/ LE ther ex
 - ADLs
 - PMEs and associated musculature
 - Postural correction

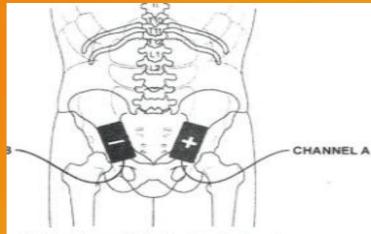
 Add: PENS before PMEs and associated muscle ther ex to optimize recruitment of neuromuscular fibers (works up to 2 hours after treatment to continue recruitment of muscle fibers)

Week 7-10

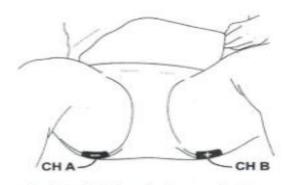
- Add: MFAC with PMEs for stress or mixed UI
- Muscle re-ed MFAC is used to treat disuse atrophy of the pelvic muscles
- Assists the patient in identifying the PFM by causing the PFM contraction

 Patient can work with the stimulator to produce a combined voluntary and involuntary contraction

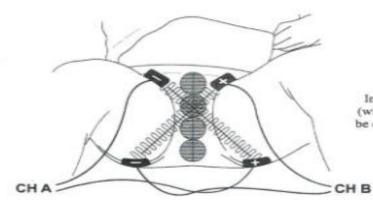
Electrode Placement



On the abdomen distal to the Anterior Superior Iliac Spine (ASIS) and proximal to the pubic hair, following the inguinal crease



On the ischial tuberosity between the Gluteus Maximus and the Hamstring muscles



In order to contract the Pelvic Floor Muscles, (without being on them), channel A and B must be crossed with the same colored tip pins (red +, black -) on the same side of the body.

Grading Up Ther Ex

- Move patient from supine to seated or standing when possible
- Graded Kegel exercise: "The elevator"
- Combination of multiple exercises
 - Bridges with TrA, gluteal squeeze and ball squeeze
 - Practice sit to stand and stand to sit while holding Kegels, then practice ambulation with Kegel to simulate control to the toilet

Advanced Pelvic Floor Movements

(Not for the frail elderly)

- Stride squats
- Posterior lunge with posterior UE reach
- Advance to therapy ball
- . Gallop
- Kneeling lunges w/ UE reaches
- . Side shuffle with floor touch
- Quick lunge matrix

Drag aton quial matrix

Conclusion

- Treatment of Urinary Incontinence in the elderly population is essential.
- Emphasize to your residents that incontinence is NOT normal, and can be treated.
- This is an additional tool in your skill set that will allow you to provide a more specialized and comprehensive care.

Thank You!

 For questions, you can contact me at 716-688-5709 or email at MontgomeryPark_NY32@prnphysicaltherapy.com