

Bladder & Bowel Continence...meet your friend, the Pelvic Floor Muscle!

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Today's Objectives

- To understand the functions of the pelvic floor muscle and its role in bladder and bowel function.
- To understand the role of pelvic floor physiotherapy in the treatment of bladder and bowel dysfunction in the person with multiple sclerosis.



Multiple Sclerosis (MS)

According to the Multiple Sclerosis (MS) International Federation;

- 80% or more of people with MS will report bladder symptoms
- 50% or more will report bowel symptoms



Multiple Sclerosis (MS)

Common symptoms reported are;

- Urinary urgency
- Urinary frequency
- Urinary incontinence
- Incomplete emptying of bladder
- Constipation
- Flatual incontinence
- Fecal incontinence

Improving your pelvic floor muscle health can help with each of these symptoms.



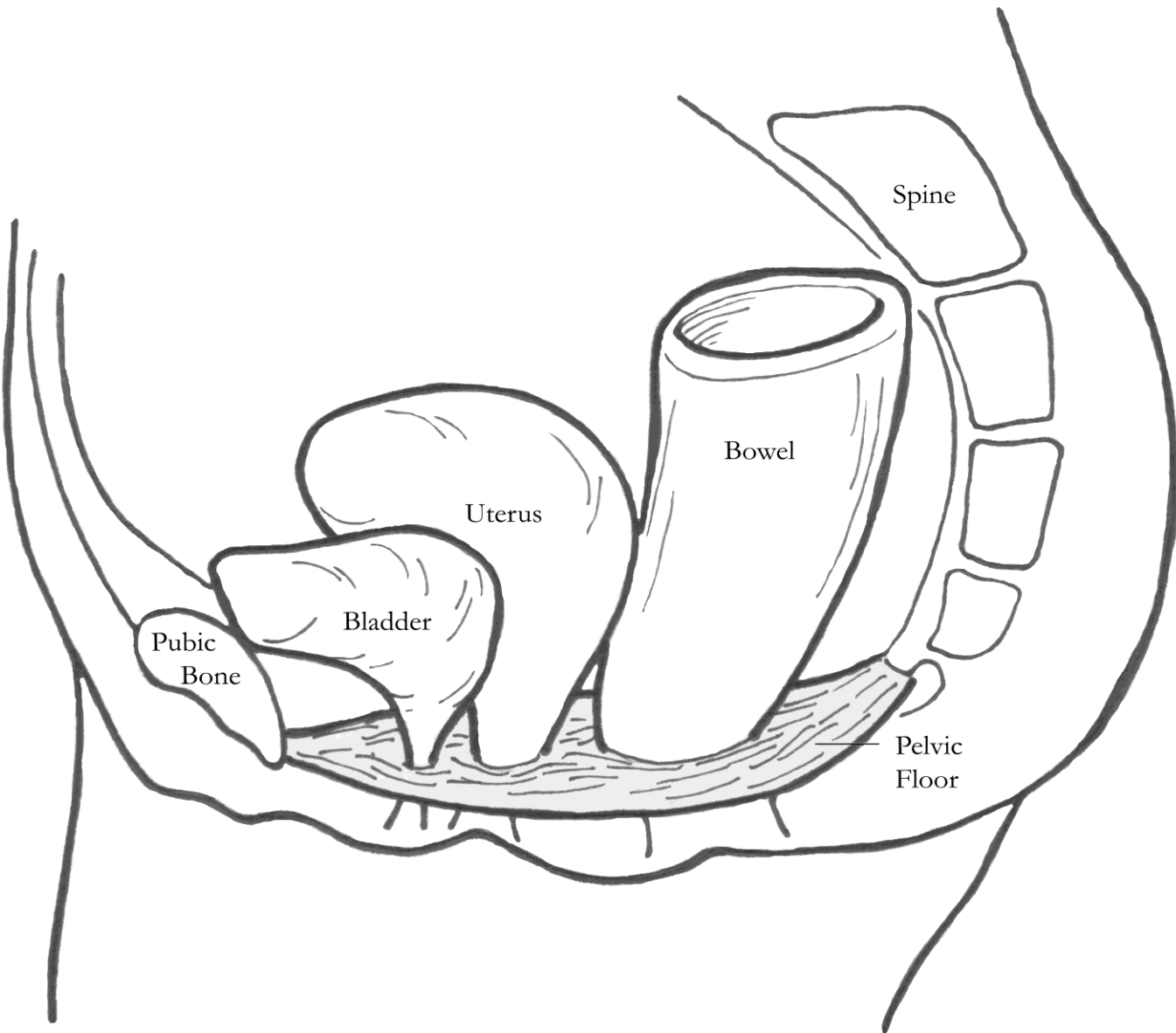
Functions of the Pelvic Floor Musculature (PFM)

- Sphincteric (bladder & bowel)
- Supportive
- Sexual
- Respiration
- Postural/Core Stabilization

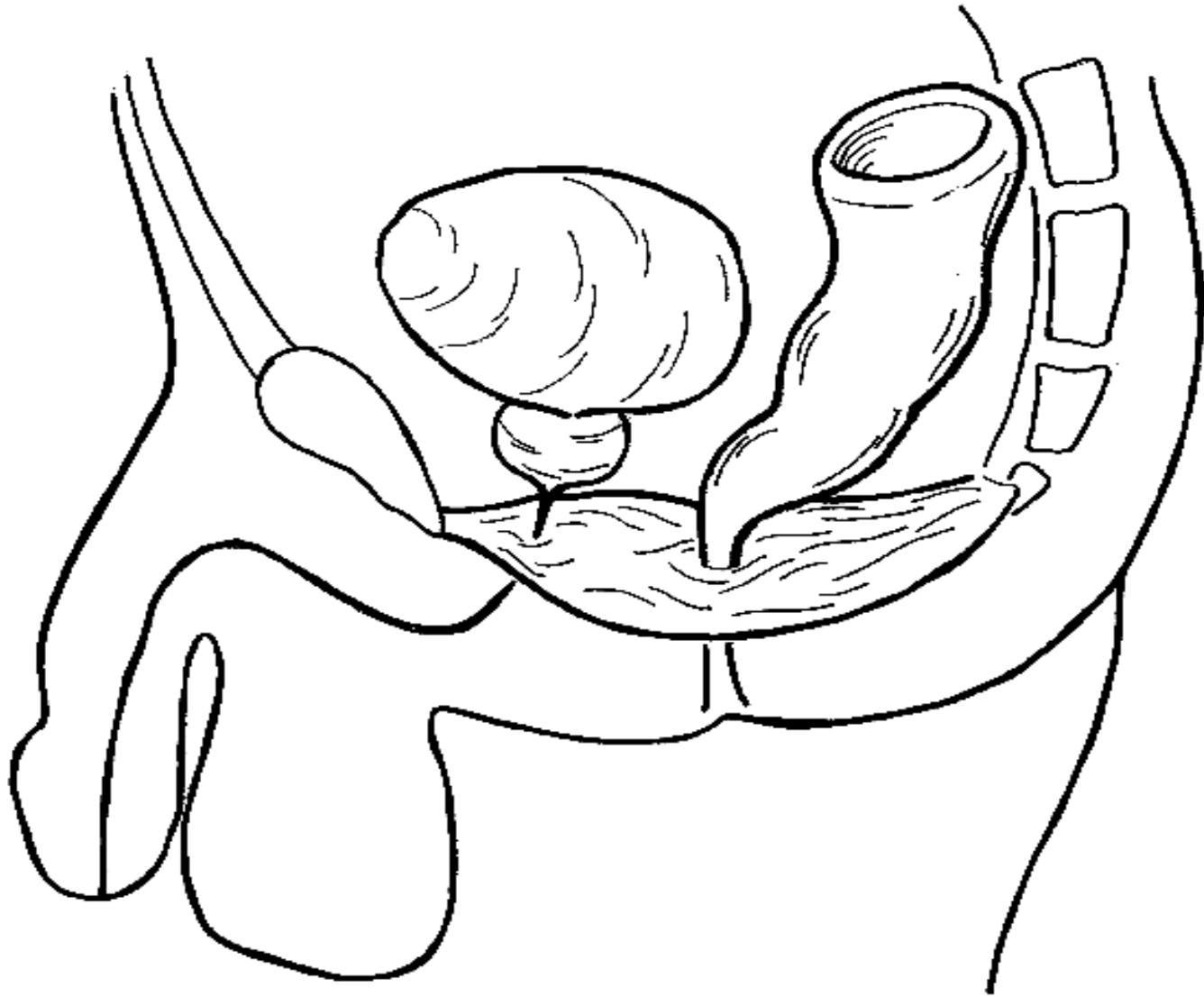
Today we will focus on the first two functions but its important to recognize all the areas the PFM impacts.



PFM---In Women



PFM---In Men



With Age comes skills

It's called MultiTasking

I CAN

LAUGH, COUGH,

SNEEZE, AND PEE ALL

AT THE SAME TIME.



Common Bladder Symptoms

Frequency: needing to pee more than 9 times per day and more than 0-1 time at night.

Urgency: having little or no warning time with needing to pee and you must get to the washroom quickly.

Nocturia: waking up at night to pee more than one per night.

Incomplete emptying: feeling like your bladder did not fully empty when you peed.



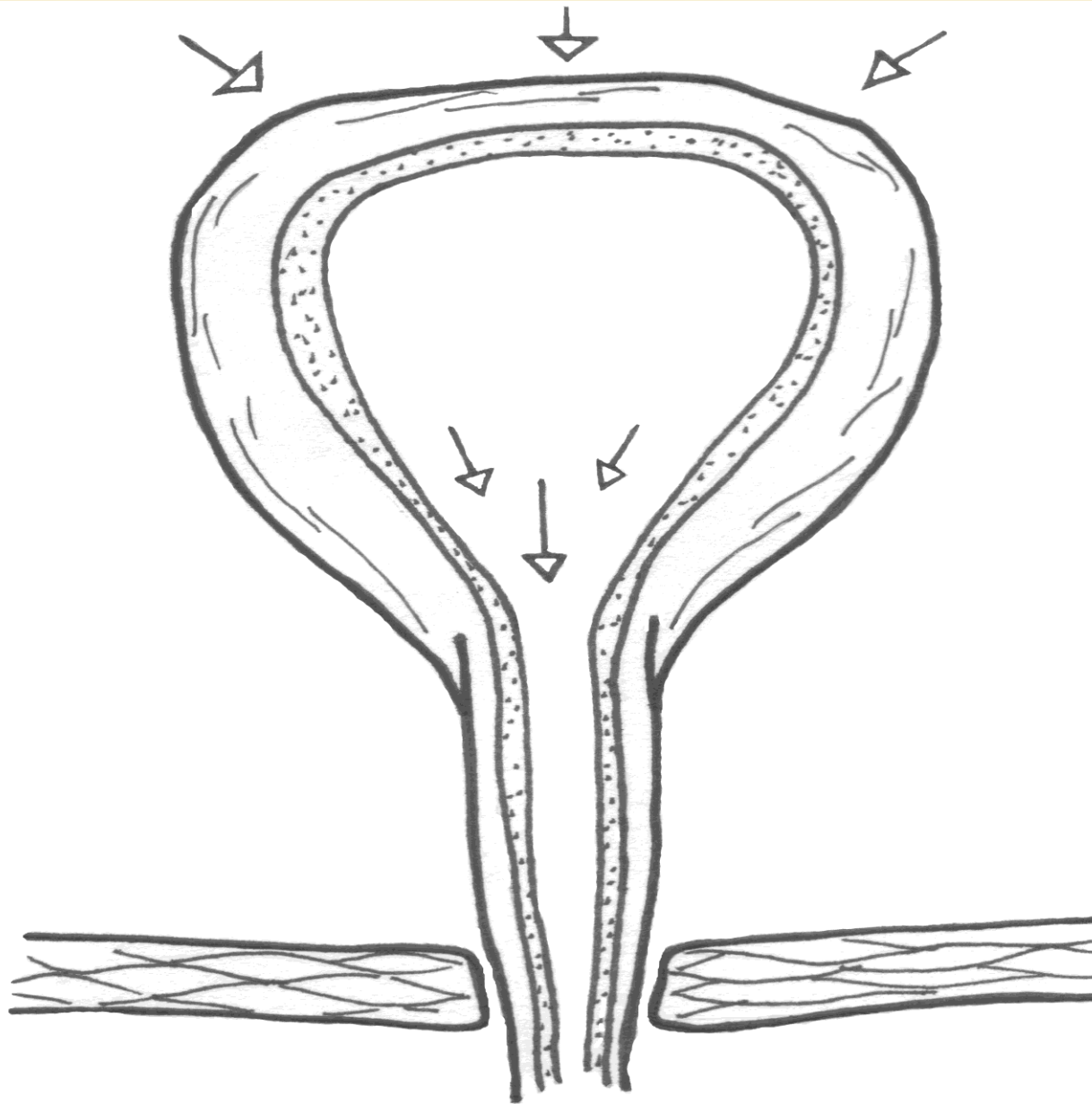
Common Bladder Symptoms

Urinary Incontinence: inability to control when and where you pee from as little as a drop to full bladder emptying.

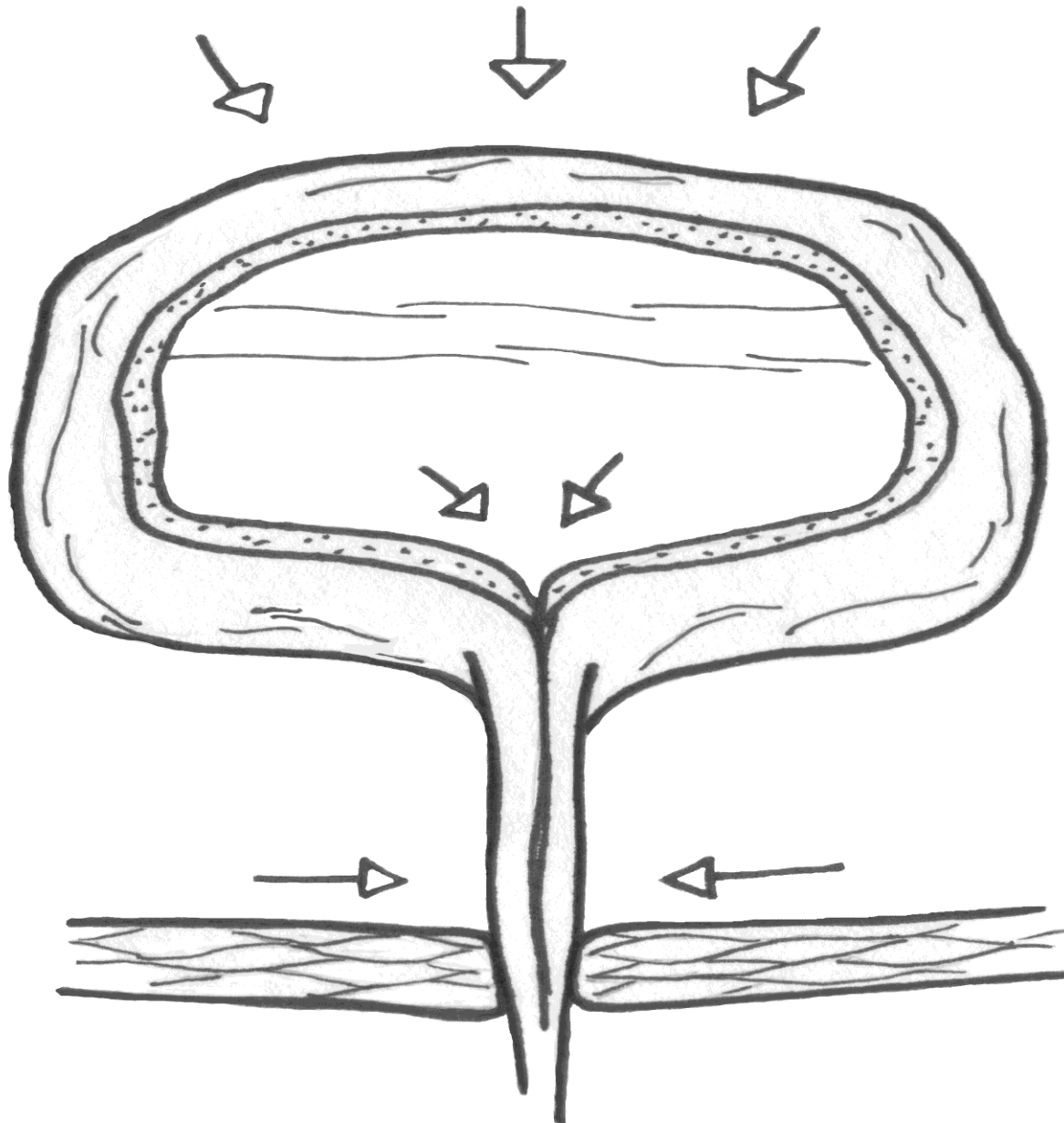
- Stress Urinary Incontinence
- Urgency Urinary Incontinence
- Mixed Incontinence



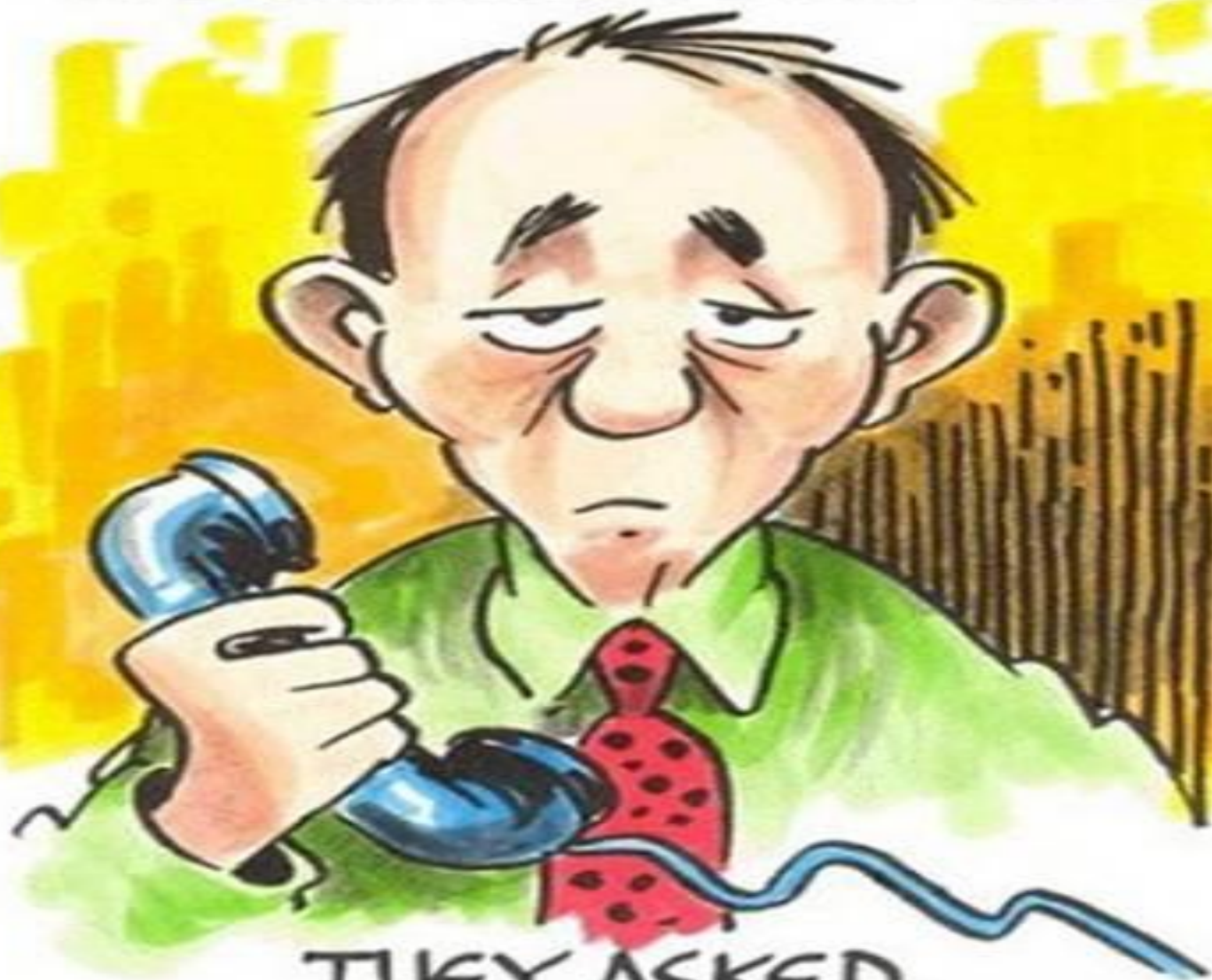
Stress Urinary Incontinence



Strong PFM---no stress urinary incontinence

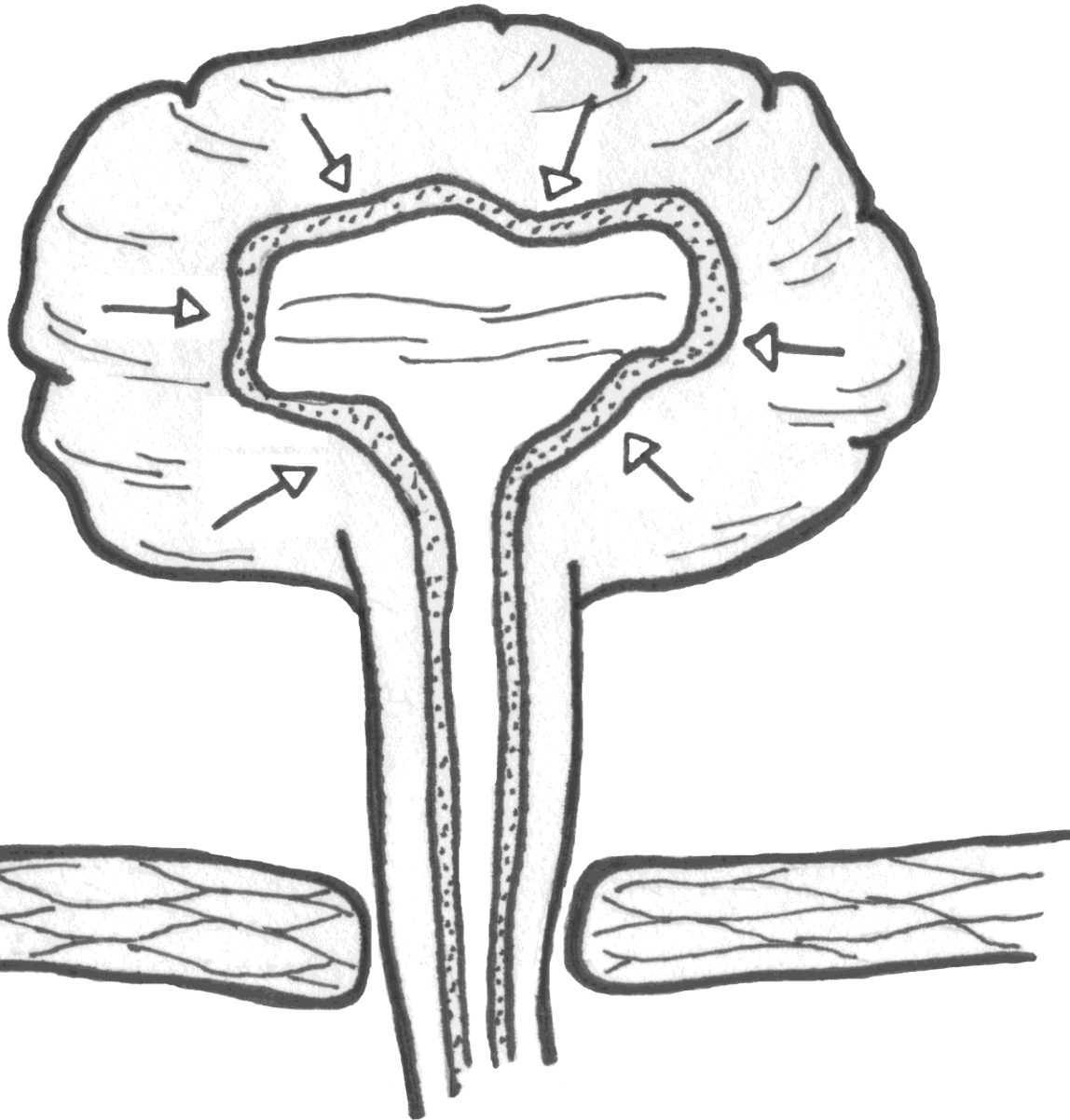


I CALLED THE
INCONTINENCE HOTLINE...



THEY ASKED,
"CAN YOU HOLD PLEASE?"

Urgency Incontinence



PFM & Bladder Dysfunction

Decreased PFM strength:

- Urinary incontinence

Poor Relaxation of PFM:

- Hesitancy
- Staccato peeing
- Incomplete bladder emptying
- Chronic UTI



Incomplete Voiding

Incomplete voiding may be an issue with;

- The bladder muscle
- The pelvic floor muscle
- Both the bladder and pelvic floor muscles



View from Outside Public Washroom



View from Inside Public Washroom



PFM & Bowel Dysfunction

Decreased PFM strength:

- Flatual incontinence
- Fecal incontinence

Poor Relaxation of PFM:

- Chronic constipation
- Incomplete bowel emptying



Warning Signs!

- Concerns of leakage with laughing, coughing, sneezing or exercise
- Difficulty holding back gas
- Awareness of washrooms
- Voiding greater than 9 times in a day and once at night
- The feeling of needing to pee or have a bowel movement with little or no warning



Warning Signs! (continued)

- Strong urge to void
- Race to the washroom
- Need to wait until the “Urge” passes
- Key-in-the-door syndrome
- Difficulty starting the urine flow
- Relying on pads for protection
- Limiting fluid intake

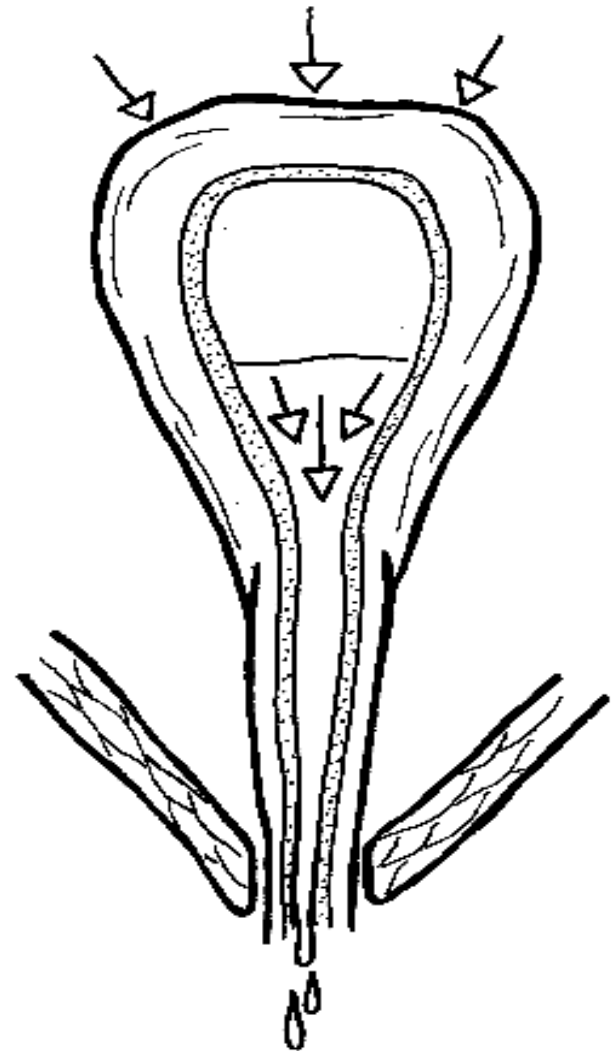
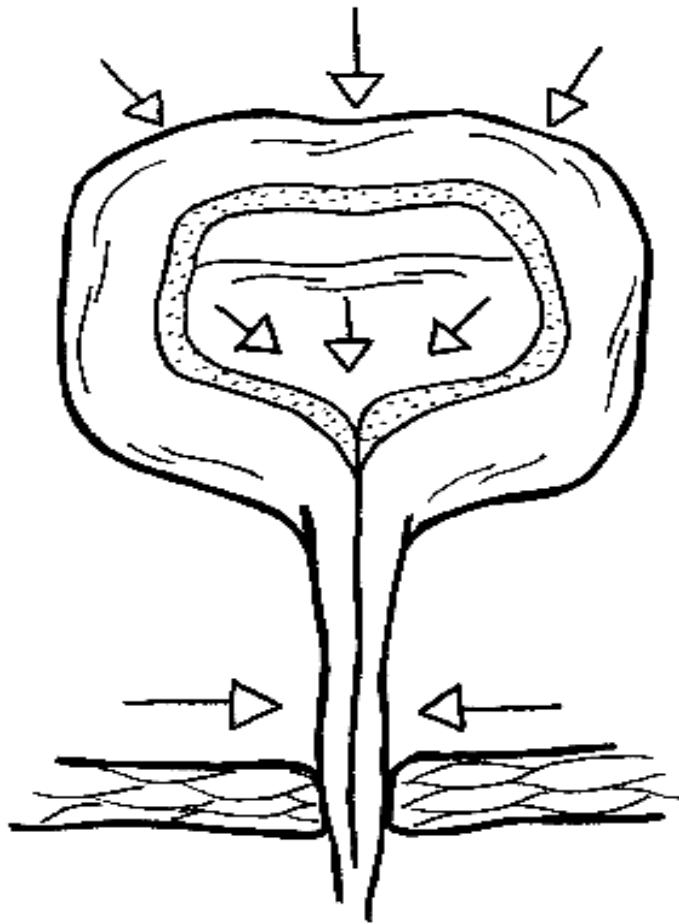


Warning Signs! (continued)

- Just-in-case voiding
- Altered physical or social activities
- Finicky bladder or bowel
- Feel like you never completely empty your bladder or bowel
- Experience frequent UTIs
- Poor PFM tone, poor support to your pelvic organs



Proper versus Poor Bladder Support--Urgency



The Boat Analogy

Boat = Pelvic organ

Ropes = Connective tissue/support structures

Water level = Pelvic Floor Muscle



Conservative Medical Management

- Incontinence Products (Pros & Cons)
 - Have an important place
 - Never use menstrual products in place of proper incontinence products
 - Expensive
 - Absorbency chemicals
 - Increase leakage and reliance
 - Increase risk of infection
 - Band-aid to the problem
 - Decrease self-image



PFM Physio Goals for the Patient with MS

Bladder: Management needs to focus on symptomatic relief and should be as conservative as possible.

Bowel: A regular bowel program should be implemented to prevent constipation, rectal over distension and fecal incontinence.

Recommendations for all MS patients according to *Incontinence Volume 2 Management* edition 2005 by Paul Abrams et al.



Conservative Management: Pelvic Floor Physio

- Education
- Medical history/surgical history/obstetrical & gynecologic history/bladder & colorectal history, etc.
- Bladder & Bowel Diary may be helpful
- Diet & Lifestyle Alterations



Diet & Lifestyle Alterations

- caffeine
- smoking
- Alcohol
- aspartame/artificial sweeteners (diabetics)
- Carbonation
- acidic fruits & juices
- spicy foods
- red dye – e.g. sandwich meats, Kool-Aid
- H₂O Intake: concentrated urine
- Adequate fiber intake



Pelvic Floor Physiotherapy (continued)

- Voiding & Defecating Toileting Postures
- Bladder Retraining/Behavioral Techniques
- Urgency Delay/Relaxation Techniques
- Acupuncture/Tibial Nerve Stimulation
- Internal Manual Therapy:
 - Myofascial trigger point release therapy
 - Scar tissue/adhesion release techniques
 - Pubovesicular ligament DTF/urethral restrictions
 - Visceral massage (constipation)
- Pelvic Floor Muscle (PFM) relaxation techniques
- Proper PFM Strengthening Exercises
 - Computerized EMG biofeedback
 - Neuro-muscular electrical stimulation



Who should do PFM exercises?

- Appropriate for everyone--no negative side effects when done correctly.
- No contra-indications to correctly performed PFM exercises.
- Increase circulation, increase fight against UTI.
- Anyone wanting to prevent or correct loss of bladder & bowel control, pelvic organ prolapse and those wanting to improve sexual sensation and appreciation, improve respiration & postural/CORE support and stabilization.
- Exercise does not limit future treatment options and can augment pharmaceutical and surgical options.
- Encourages patients to become active in their treatment plan; mental and physical gain.



Pelvic Floor Muscle Exercises

“LAUGHED SO HARD
I PEED MY PANTS!”

A Woman's Essential Guide for Improved
BLADDER CONTROL



Computerized EMG Biofeedback

- Teaches proper muscle contraction
- Visual feedback
- Improves awareness



Computerized EMG Biofeedback



Neuromuscular Stimulation (NMES)

- Electrical Stimulation
- Produces muscle contraction by activating nerve and muscle
- Increases effectiveness of voluntary contraction
- Helps locate muscle and facilitate correct contraction
- Combined approach of NMES and PFM exercise can be beneficial



Neuromuscular Stimulation (NMES)



Randomized Pilot Study: Ireland 2006

- Bladder dysfunction affects up to 90% of the MS population.
- Looked at the effects of PFM training and advice, EMG biofeedback and NMES on bladder function in MS patients.

Group 1 = PFM training/advice

Group 2 = PFM training/advice + EMG

Group 3 = PFM training/advice + EMG + NMES

Results: At week 9 of treatment, Group 3 demonstrated superior benefit as measured by the number of leaks and pad test than Groups 1 & 2.

Conclusion: Results suggest that these treatments, used in combination, may reduce urinary symptoms in MS.

McClurg et al (2006)

Neurourology & Urodynamics Volume 25:337-348, 2006.



Clinical trial: Ireland 2008

- Double blind, placebo controlled, randomized clinical trial.
- Lower urinary tract dysfunction affects up to 75% of the multiple sclerosis population.
- Sample size = 74 MS patients.
- Sham NMES versus Active NMES.

Results: found a statistically significant reduction in incontinence episodes in the active NMES group versus the sham NMES group.

Conclusion: NMES should be considered during pelvic floor muscle training as a treatment option for MS-related lower urinary tract dysfunction.

Neurourol. Urodynam. 27:231-237, 2008.



- There is so much that you can do to improve symptoms of bladder and bowel dysfunction.
- Pelvic floor physiotherapists want to help.
- Contact the Physiotherapy College in your province to help locate a pelvic floor physiotherapist near you.



Questions?

