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# Pelvic Floor Rehabilitation and Indications in Athletic Training

### Background

- Outpatient orthopedic/pelvic health PT at Riverside Medical Center (Bourbonnais and Manteno campuses) and outreach AT
- DPT from Governors State University (2019)
- B.A. from Lewis University (2015)

- Herman and Wallace Level I competent
- APTA Pelvic Floor Level II Bowel Dysfunction competent

## Conflict of Interest Disclosure

• I have no conflicts of interest to disclose for this presentation

### At the conclusion of this presentation, the participant should be able to:

- Describe the resources available to appropriate patients for pelvic health (Comprehension)
- Identify when to refer a patient due to subjective pelvic floor symptoms (Knowledge)
- Assist/initiate treatment for pelvic floor treatment externally (Application)
- Describe relevant anatomy and risk factors for pelvic floor dysfunction (Application)

### What is Pelvic PT?

- Specialty subset of PT that allows the clinician to perform internal examinations with patient consent, either vaginally or rectally to assess for muscle strength and discrepancies in muscle length/tone
- Continuing education courses
- Urinary incontinence, fecal incontinence, and pelvic pain are the three primary symptoms
- Patient may refuse internal tx at any time, but can still be treated (ATs can be extremely helpful treating these patients)
- Lengthen, then strengthen
- Women AND men

#### Why should an Athletic Trainer care?

#### LBP

- Hip pain
  - Obturator internus, piriformis
- Pelvic pain
  - Menstrual cycle related
  - Mandatory reporter
- SUI
- Constipation



#### Implications in Athletics

- Young women participating in high-level sport activity, especially endurance and power sports, are three times as likely to develop symptoms of pelvic floor dysfunction compared to non-athlete counterparts. <sup>1</sup>
- Association between low back pain and pelvic floor dysfunction in female athletes participating in high impact sports.<sup>2</sup>

#### Implications in Athletics

 Prevalence rates between 4.5% (swimming) and 80% (trampoline jumping) have been found in young elite athletes. In the general female population urinary incontinence causes withdrawal from exercise and fitness activities and is a barrier to regular participation in physical activities <sup>3</sup>

#### Implications in athletics

 9 of 420 nulliparous female soldiers entering the airborne infantry training program developed severe incontinence<sup>4</sup>

## What can you ask during evaluation?

- Are you experiencing any uncontrolled loss of bowel or bladder?
- Do you notice a loss of urine during heavy lifts or landings?
- Do you have any pain in the pelvic region?
- Do you have anything else that you want to tell me about that might be related to this area?

### Pop can model (Mary Massery)



#### Why are women impacted so much more than men?



https://www.continence.org.au/pages/how-do-pelvic-floor-muscles-help.html

# Pregnancy/Post Partum and Athletics

- While this may or may not apply to your population, it is important to know that pregnancy does NOT mean permanent loss off bladder control (even with sneezing)
- Unless there has been significant nerve damage, we can work together to help the post-partum athlete return to full PLOF
- Posture, lifting technique, breathing, and mobility are some of the major player in SUI

# Types of UI

- Stress urinary incontinence leaks with lift, stairs, cough, sneeze, vomiting, etc
- Urge urinary incontinence frequent urination without ability to defer
- Mixed urinary incontinence

- Rule out spinal cord involvement!
  - Did symptoms begin after a back injury?
  - What medical emergency condition am I referring to?

# **Constipation or Fecal Incontinence**

- Big part of my patient population
- Often post partum or related to prolapse
- Consider female athlete triad (eating disorders  $\rightarrow$  laxative use)
  - Dependence on laxatives is very difficult to overcome
- Have to consider diet, habits, management techniques, length of symptoms
- Body mechanics
  - squatty potty, avoid straining
- Rule out spinal cord involvement!!!

#### Treatments that you can do in ATR

- Teach diaphragmatic breathing
  - Improves visceral mobility/motility
  - Improves PFM mobility in a safe and controlled way
  - Improved vagus nerve response, decreasing stress response
- Teach transverse abdominal bracing
  - Facial fiber connection directly to PFM
  - If restrictions are present, less likely to increase symptoms than kegels
  - Improve stability
- Postural corrections
  - Consider pop can model/balloon model



https://i1.wp.com/studiofitnessvictoria.com/wp-content/uploads/2017/03/balloon-pelvic-floor-example-425x281.png?ssl=

#### CASE STUDY (Anne Best PT, DPT)

- 20 y/o female athlete presented to PT after unsuccessful 6 weeks PT 3x/week
- Pt competitively weight lifted and golfed

- Came up in casual conversation that she was experiencing pain w/ penetration, frequency, SUI, and loose stools
- No noted pattern to pain, but always coincided w/ LBP
- Takeaway: someone (AT, MD, or PT) should have ruled out PFM dysfunction. She could have started treating this 6 weeks sooner
- Patient ended up making a full recovery w/ PFM PT in addition to strengthening hips and spinal stabilizers

# Obligatory CrossFit Videos

https://www.youtube.com/watch?v=UicfGqj\_Z1U

https://www.youtube.com/watch?v=UKzq1upNIgU

#### Takeaway: Education is key!

- Teach all athletes that loss of bladder/bowel is NOT required in order to demonstrate how hard they are working
- Prevent issues

Help athletes prior to having children to treat PFM

#### References

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2. Bø, K., 2004. Urinary incontinence, pelvic floor dysfunction, exercise and sport. Sports Med. 34 (7), 451–464.

3. Arab A et al. Assessment of pelvic floor muscle function in women with and without low back pain using transabdominal ultrasound. Man Ther. 2010; 15:235-239.

4. Davis, G.D., Goodman, M., 1996. Stress urinary incontinence in nulliparous female soldiers in airborne infantry training. J. Pelvic Surg. 2 (2), 68–71.

# Thank You!

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Any Questions?

