Pelvic Health Rehabilitation

Physical Therapy Specialists in

Pelvic Floor Dysfunction and Rehabilitation

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Oasis
PHYSICAL THERAPY
& SPORTS REHAB

Background

- Northern Arizona University
- Oasis Physical Therapy in Pasco, WA

Why Pelvic Health?

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What is Pelvic Health Rehabilitation?

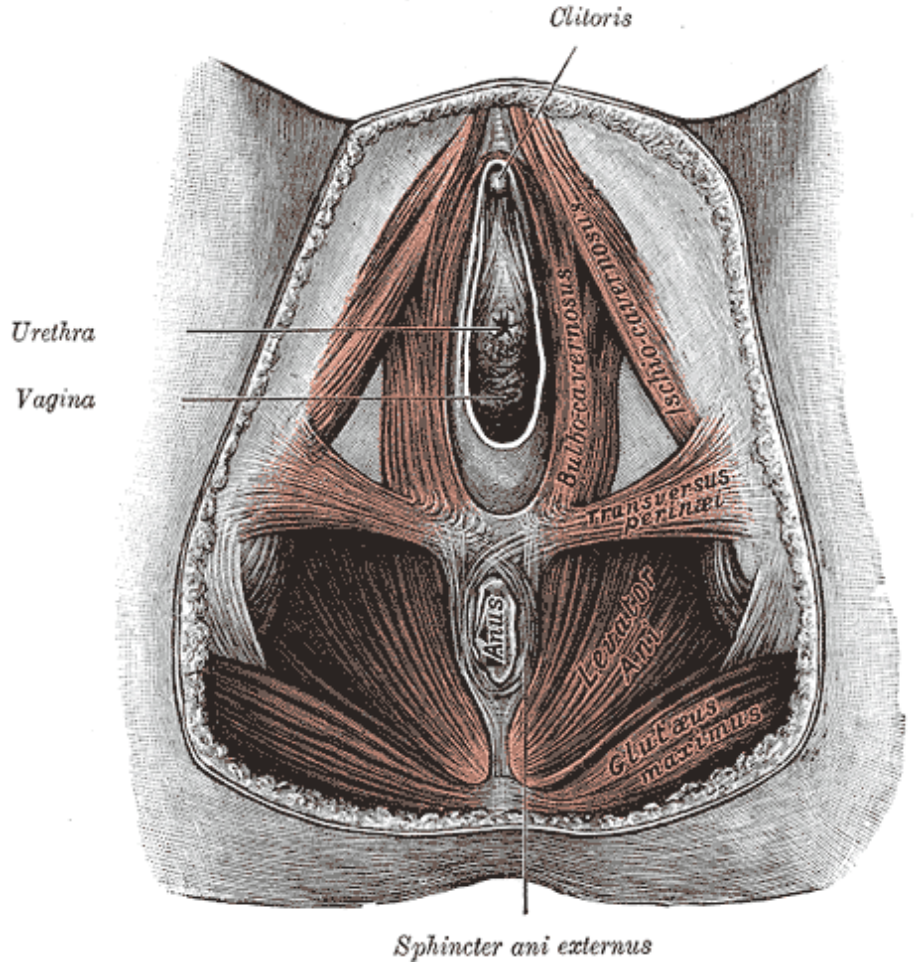
- A non-surgical approach to the rehabilitation of dysfunction in the pelvis that contributes to bowel, bladder, sexual health, and pain complaints. Approaches may include behavioral strategies, manual therapies, modalities, therapeutic exercise, education, and functional retraining.

Female Urogenital and Musculoskeletal Anatomy

- Contents of the Pelvic Floor:
  - Perineum
  - Genitals
  - Muscle
  - Fascia
  - Connective tissue

Female Perineum

- Superficial muscles
- Perineal Membrane Layer
- Anal Triangle
- Perineal Body

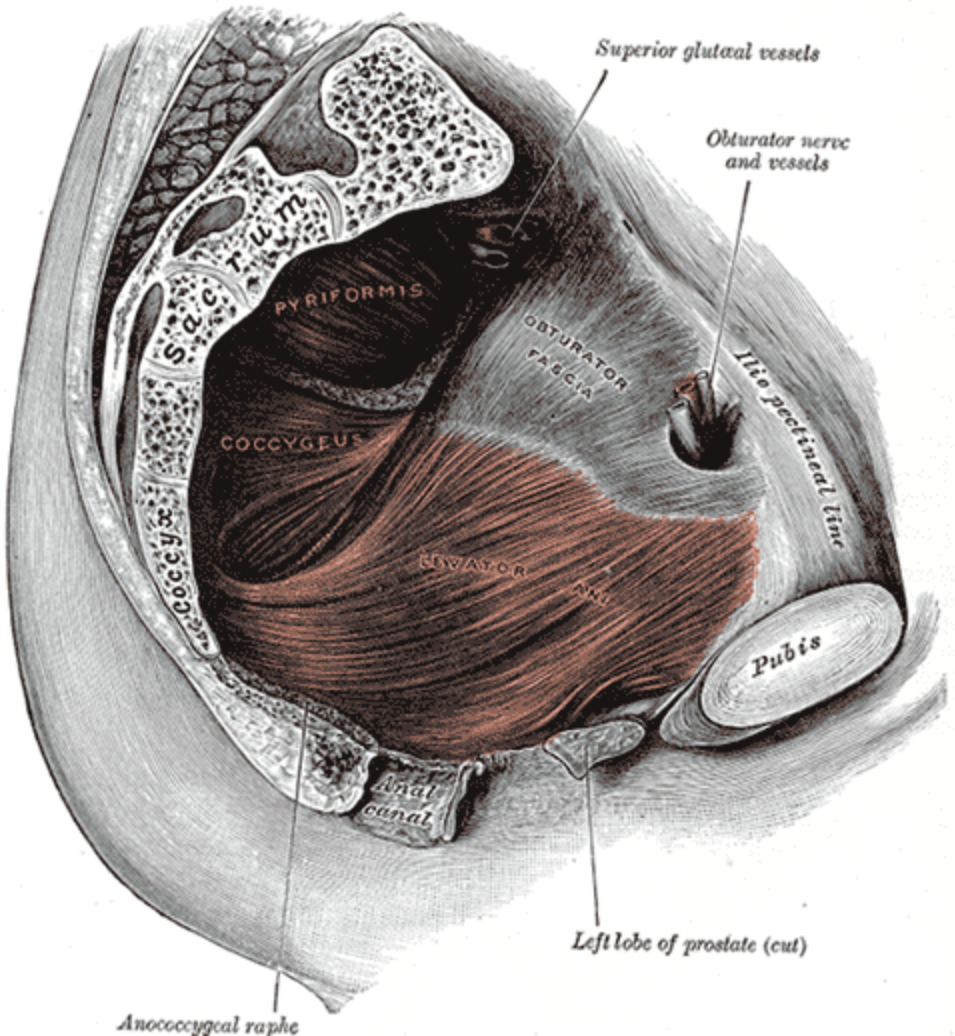


Pelvic Diaphragm

- Deepest Layer
- Levator Ani Muscles
  - Pubococcygeus
  - Pubovaginalis
  - Puborectalis
  - Iliococcygeus
  - Coccygeus
- Function:
  - Support the pelvis
  - Support the organs
  - Assist abdominals
  - Sphinteric
  - Sexual appreciation
- Muscle Fibers
  - 30% fast twitch
  - 70% slow twitch

Levator Ani

- Muscle attachments to coccyx, sacrum, piriformis and pubis
- Continuous with piriformis and obturator internus



Obturator Internus and Piriformis Muscles

- Lateral hip rotators
- Hypertonus or trigger points cause vaginal, rectal or clitoral pain
- Piriformis syndrome
- Referred pain mimics other dysfunctions

Muscle Fibers

- 70 % slow twitch
- 30% fast twitch
- Both fast and slow twitch fibers are present in the levator ani muscles
  - Fast twitch facilitate rapid sphincter closure
  - Slow twitch maintain tone and support the pelvic organs

Indications for PT

- Urinary and fecal incontinence
- Pelvic pain/chronic pain
- Pelvic organ prolapse
- To assess for a PF exercise program

Contraindications for PT

- Lack of patient or physician consent
- Under 6 wks. Post partum
- Under 6 wks. Post-op
- Severe atrophic vaginitis
- Severe pelvic pain
- Children or anyone w/o prior medical pelvic exam
- Sexual abuse
- Pregnancy

Physical Therapy Evaluation of The Pelvic Floor

- History
- Observation and Manual techniques
- Manual Muscle test
- Biofeedback
- Clear spine/hip/sacroiliac joint

History

- Extensive questionnaire
- Consent form
- Bladder or bowel diary
  - 3 days
  - Frequency, intake, amount voided

Observation and Manual techniques

- External assessment
- Palpation and Internal assessment
- Complete assessment of vaginal tone and size, contractility, muscle symmetry, reflexes (anal, clitoral), sensation, pain and strength
- Observe for cystocele or rectocele

Mobility vs. Stability

- Pelvic floor- function
  - Supportive
  - Sphinteric
  - Sexual

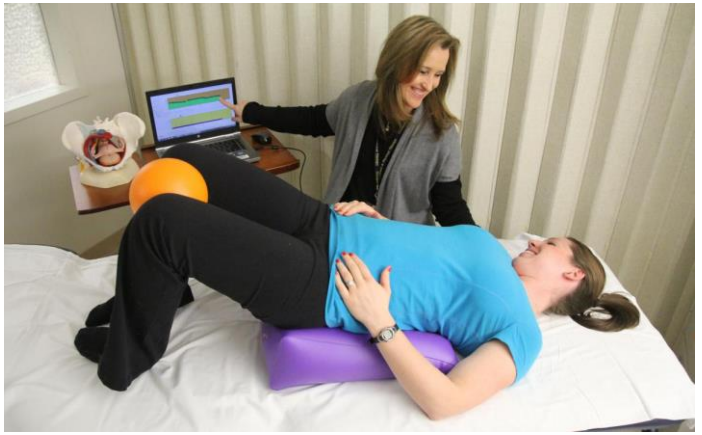
- Too much mobility-prolapse or incontinence
- Too much fixation-pain

Pelvic Floor Manual Muscle Testing

- Power: Grade 0-5
- Symmetry
- Fast contraction
- Endurance
- Repetitions
  - # of repeatable contractions up to 10 seconds at grade of power test

Biofeedback Assessment

- Surface electrodes vs. vaginal internal surface electrodes
- Baseline reading
- Initial rise
- Stability of hold
- Quick contractions
- Ability to return to baseline
- Ability to repeat contraction
- Substitution
- Compare sub maximal to maximal



Biofeedback readouts

- Low Tone
- High Tone
- Difficulty in return to baseline
- Unstable curve
- Fast vs. Slow twitch

Treatment: Biofeedback

- Surface vs. vaginal electrode
- Baseline tone
- Sustained contraction and return to baseline
- Isolate PFM
- Endurance changes
- Strength changes
- Very motivating-visual and immediate results
- Excellent for patients with poor motor awareness

Treatment: Exercise

- Teaching and prescribing pelvic floor exercises
  - Progression
  - Based on evaluation findings and history
  - Accessory muscles
- Self Assessment Techniques:
  - Mirror observation
  - Self palpation-external and internal
  - Partner feedback

Treatment Strategies-Incontinence

- Stress and Urge
  - Scheduled voiding
  - Bladder retraining
  - Relaxation techniques
  - Type and amount of fluid intake

Treatment Strategies

- Electrical stimulation
  - Indications: stress and urge incontinence, pelvic floor re-education or weakness, overactive bladder
  - Strengthening -efferent
  - Inhibiting (TENS) -afferent
  - Contraindications: infection, pregnancy, pacemaker, cancer, poor cognition
- Ultrasound
- Vaginal weights

Treatment: Chronic Pain

- Variety of diagnoses and indications
- Note high resting sEMG, trigger points, urinary frequency and urgency
- Techniques
  - Modalities-cold, heat, US, ES
  - Muscle re-education with sEMG
  - Soft tissue mobilization, trigger point techniques
  - Dilators
  - Perineal massage
  - Pelvic alignment
  - Exercise program
  - Scar mobility

Treatment for Surgical Patients

- Phase one: Pre-op
  - Pelvic floor anatomy and function
  - How diet may affect the bladder
  - Avoidance of valsalva—proper use of lower abdominal muscles to support the pelvic girdle

- Phase two: 6 weeks post-op
  - Gradual increase in strengthening exercise
  - Pelvic floor strengthening program as needed

Referral

- Evaluate and treat or specific orders
- Feedback from EMG
- Usually one time per week for 6-8 wks.
- Covered by insurance
- Patient can come in for a consultation prior to initial assessment

Case Study: KH

KH is a 33 yo F G1P1 who presented to Physical therapy with Lumbar Radiculopathy, muscle strain, and PF dysfunction.

Impairments: Mixed Urinary Incontinence, IBS-constipation, Pelvic Pain, and Dyspareunia.

Functional Limitations: sitting, standing, walking, Gym activities, caring for 1yo son, UI with coughing/sneezing.

Objective Measures

Posture/Observation: Increased Lumbar Lordosis/Anterior pelvic tilt

Sensation: N/T into R LE otherwise unremarkable

Lumbar ROM: 50-75% for all directions with pain in low back.

Flexibility: +Thomas test-severe hip flexor tightness

MMT: ⅘ for deep hip ER's/extensors.

Laycocks: Pt was unable to perform PFM mmt due hypertonicity and pain.

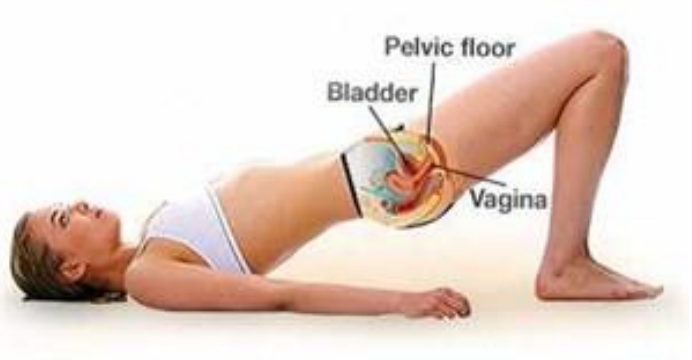
Palpation: Increased TTP/ MFR's to external/internal PFM's bil.

Interventions

Bladder/bowel diary

Diaphragmatic breathing

STM/MFR external PFM



Reverse Kegel

TA activation/core/global hip strengthening

Outcomes

Following 8 week course of PT 2 times per week

Posture/Observation: Increased Lumbar Lordosis/Anterior pelvic tilt-Improved postural awareness

Sensation: Centralization of symptoms, no % of N/T.

Lumbar ROM: WNL-no % LBP

Flexibility: -Thomas test, slight restriction noted

MMT: 5/5 for deep hip ER's/extensors.

Laycocks: P:4 E: 5 R: 6 F: 7

Palpation: Slight TTP to ischiocavernosus, No tenderness noted internally or about other external PFM muscles.

Putting the pieces together

https://www.youtube.com/watch?v=VEd4Q37yUXg

Take Home Message

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Thank You!


May your
coffee,
pelvic floor,
intuition and
self-appreciation
be strong