

Pelvic Floor Rehabilitation

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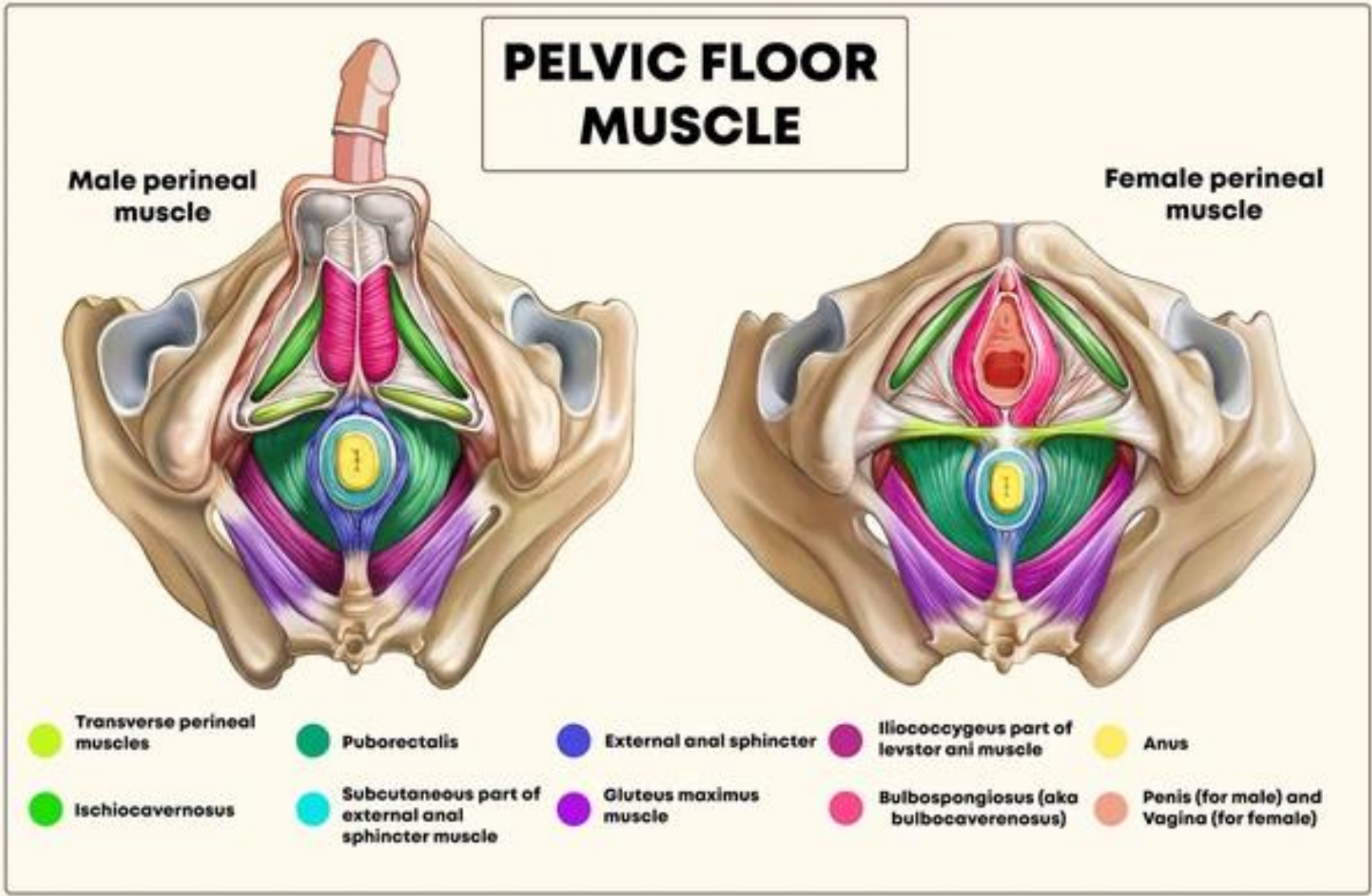


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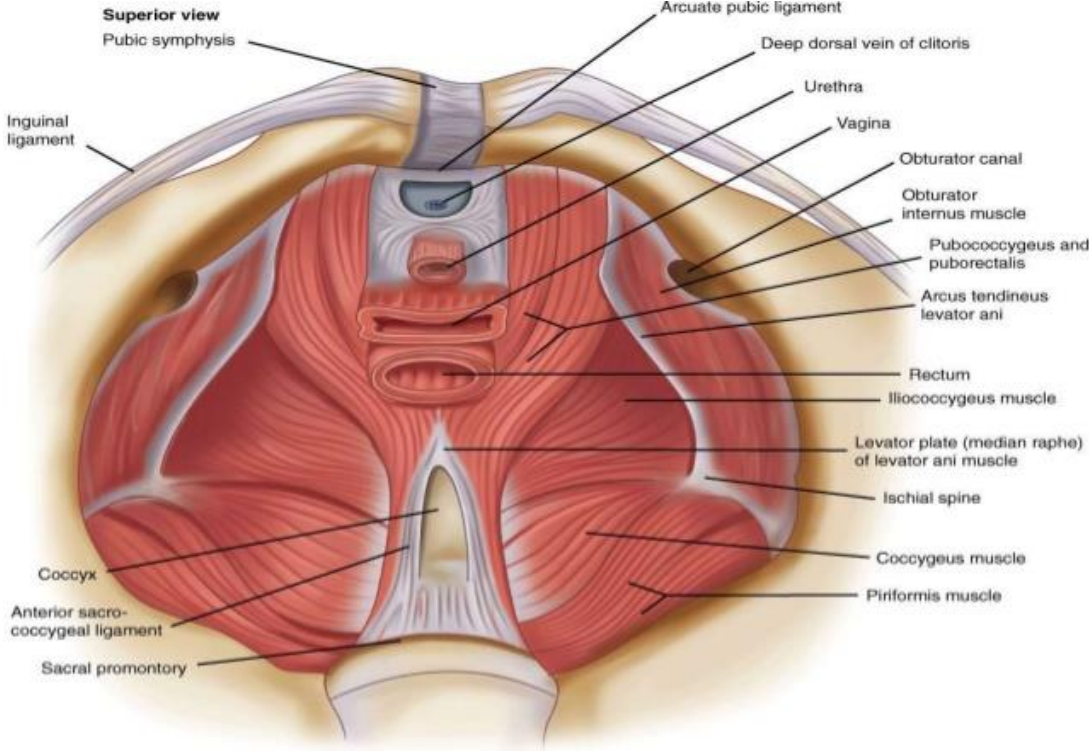
What is the Pelvic Floor?

- ▶ The pelvic floor is a group of muscles that forms a hammock inside the pelvis
- ▶ These muscles can be weak, loose, tight, or strong
- ▶ The function of these muscles are to support the pelvis and internal organs
- ▶ When these muscles function properly they control bowel and bladder function, pressure in the abdomen, support pelvic viscera, and control contraction of the vagina or the penis

Pelvic Floor Musculature

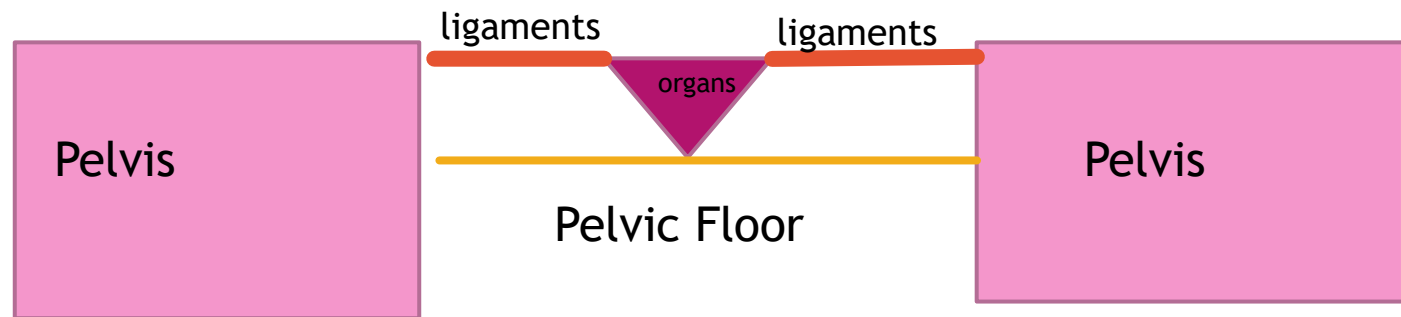


Pelvic Floor Muscles



Source: Schorge JO, Schaffer J, Halverson LM, Hoffman BL, Bedshaw KD, Cunningham FG. Williams Gynecology. <http://www.accessmedicine.com>
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Pelvic Floor support Boat in Dry Dock



Pelvic Floor and Diaphragm work Together



Diagnoses that would benefit from pelvic floor rehabilitation

- ▶ Urinary Incontinence
- ▶ Bowel leakage
- ▶ Pelvic Pain
- ▶ Constipation
- ▶ Pain during sex
- ▶ Postpartum
- ▶ Prenatal issues
- ▶ Prolapsed uterus, bladder, bowel
- ▶ Dysmenorrhea
- ▶ Dyspareunia
- ▶ Endometriosis
- ▶ Vulvar pain
- ▶ Pudendal Neuralgia

Incontinence

- ▶ Incontinence is not normal no matter how old you are
- ▶ Women between 18-59: 26% have involuntary leakage including elite athletes on college and professional levels
- ▶ Women over 40: 20% also have an overactive bladder making 44-57% of middle aged women
- ▶ 75% of women over 60 have incontinence
- ▶ Urinary Incontinence is twice as common in women as in men
- ▶ One of the leading causes of nursing home admission

Incontinence

- ▶ There are three main types of incontinence
 - ▶ Stress Incontinence -involuntary loss of urine during physical exertion (sneezing, running, jumping, lifting, and coughing)
 - ▶ Urge Incontinence-involuntary loss of urine accompanied or preceded by a strong urge to void
 - ▶ Mixed Incontinence-mixture of the two
 - ▶ Overflow Incontinence

Events of Continence

- ▶ A. The reflex Arc-A baby's bladder
Fills-stretches-Empties CNS does not control
- ▶ B. Inhibition of the reflex arc from the detrusor motor area
frontal lobe
- ▶ C. Neurological control of micturition: Bradley's Loops
4 loops for bladder control

Bladder Storage

- ▶ Storage - Reservoir Capacity (Normal Volume 400-600 ml)
 - ▶ Normal Events of bladder storage
 - ▶ Low pressure reservoir
 - ▶ First desire to void-150-200ml
 - ▶ Bladder remains relaxed to 200-600ml
 - ▶ Sphincter and pelvic floor contract

Bladder transition

- ▶ Normal Events of transition
 - ▶ Bladder recognizes signal of fullness-decision to void
 - ▶ Voluntarily inhibit urination-postponement
 - ▶ Transport self to bathroom
 - ▶ Give the signal to void
- ▶ Bladder Emptying
 - ▶ Bladder (detrusor muscle) contracts (parasympathetic)
 - ▶ Sphincter and pelvic floor relaxes
 - ▶ PVR-post void residual-0-50ml normal

Pelvic Floor and Bladder Relationships

	Storage	Empty
Detrusor (bladder)	Relaxed	Contracted
Bladder neck sphincters	Active (closed)	Inactive (open)
Pelvic floor muscles	Contracted	Relaxed
Problem/incontinence	Stress, urge, or mixed	overflow

Bladder Health Tips

- ▶ Go every 3-4 hours
- ▶ 5-7 times in 24 hours
- ▶ No Just in Case Urinations
- ▶ Go for 8 seconds
- ▶ Sit on toilet (don't hover)
- ▶ No straining
- ▶ No nighttime Just in case
- ▶ Avoid Constipation
- ▶ Drink Enough water (1/2 body weight in ounces)
- ▶ Avoid Bladder irritants
- ▶ Void Before, after sex
- ▶ Avoid Pads
- ▶ Pelvic Floor Exercises
- ▶ Orgasm

Bladder Irritants

- ▶ Alcoholic beverages
- ▶ Apple juice
- ▶ Apples
- ▶ Asorbic acid
- ▶ Cantaloupes
- ▶ Carbonated beverages
- ▶ Chili
- ▶ Citrus fruits
- ▶ Coffee
- ▶ cranberries
- ▶ Grapes
- ▶ Guava
- ▶ Peaches
- ▶ Peppers
- ▶ Pineapples
- ▶ Plums
- ▶ Strawberries
- ▶ Tea
- ▶ Tomatoes
- ▶ vinegar

Prolapses

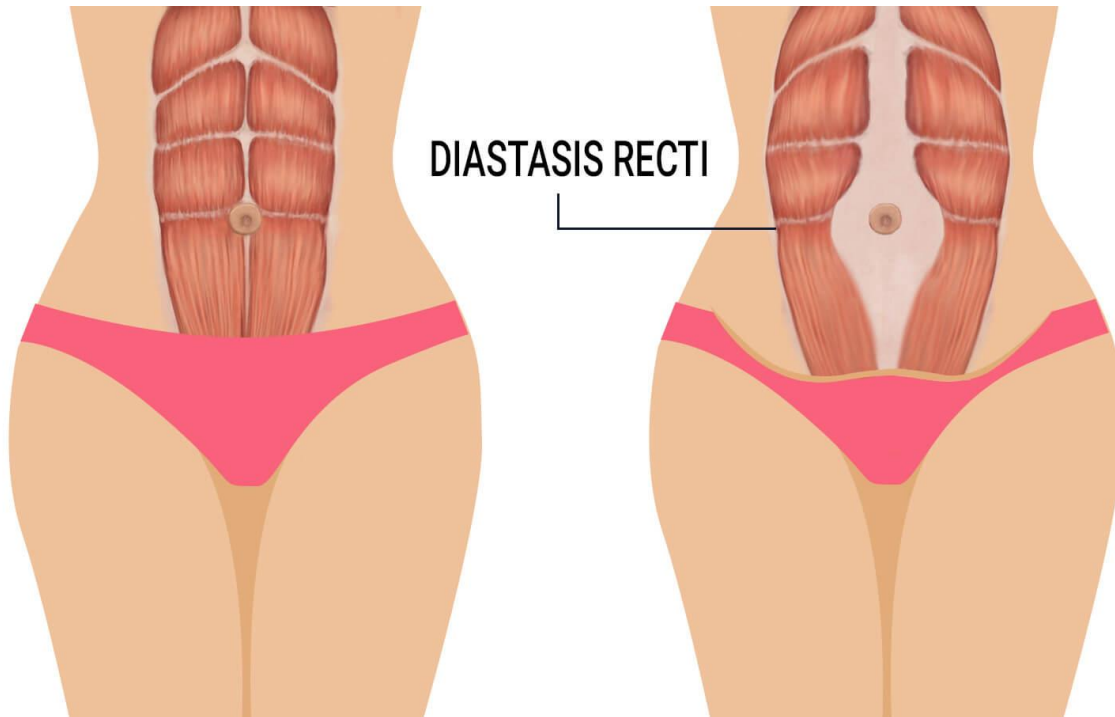
Types of Prolapse

- ▶ Uterine
- ▶ Bladder
- ▶ Bowel

Prolapse (Grades 1-3) Physical Therapy:

- ▶ Strengthens pelvic floor muscles to decrease occurrence and severity
- ▶ Benefits include decrease risk of infection and pain

Diastasis Recti



Therapy can assist with lessening and strengthening of abdominal and pelvic floor muscles to decrease severity and increase control

How Pelvic Floor Rehabilitation Can Help

- ▶ Identify muscle tightness, weakness, pain, function of pelvic floor and surrounding muscles
- ▶ Identify postural alignments or problems that may be leading to dysfunction
- ▶ Discuss issues that the patient wants to work on during therapy
- ▶ Develop a treatment plan to work on deficits involving pelvic floor

How to get help

- ▶ Discuss with your physician and get an order to attend pelvic floor therapy
- ▶ Be open about issues and commit to treatment plan
- ▶ Be willing to change and adapt
- ▶ It takes your participation and willing to work on issues to achieve desired outcomes

Initial Evaluation

- ▶ External and Internal Exam
 - ▶ Internal exam is most beneficial but not completely necessary to determine issues associated with pelvic floor
 - ▶ It is easier and more accurate to palpate musculature internally due to position of pelvic floor musculature
- ▶ Education
 - ▶ Do's and Don'ts that can help the patient in the long run
- ▶ Customized Exercises
- ▶ Dependent on Need
 - ▶ Manual therapy, Biofeedback, and Electrical stimulation
- ▶ Help with any specific dysfunction that is causing pain or discomfort

Purpose of Internal Exam

- ▶ Assess strength of different layers of pelvic floor with different depth of penetration
- ▶ Only way to assess deeper pelvic floor muscles
- ▶ Can assess tightness and pain into pelvic floor and hip musculature
- ▶ Muscles assessed by
 - ▶ Power: how much contraction occurs
 - ▶ Endurance: how long you hold the same contraction
 - ▶ Repetitions: how many times you can hold it for the same strength and endurance
 - ▶ Fast twitch: how many times you can contract quickly

Treatment

- ▶ Education
- ▶ Biofeedback
- ▶ Bowel/Bladder Diary
- ▶ Electrical Stimulation
- ▶ Manual Therapy
- ▶ Postural Alignment
- ▶ Custom Exercise Prescription
 - ▶ Pt. will come 1-2 x a week from 6-12 weeks to address strength, tension, pain and function
 - ▶ Exercises beyond Kegels and focus on your specific issues

Exercise Prescription for weak pelvic floor

- ▶ Lifting contraction should be Utilized
- ▶ Muscle Isolation in important
- ▶ 10 second contraction
- ▶ 30-80 repetitions a day
- ▶ 8 weeks training
- ▶ Functional Use individualized of patient

Demonstration of Pelvic Floor muscle contraction

- ▶ Elevator
- ▶ Sucking milkshake
- ▶ Stopping flow of urine

Exercise Prescription for tight pelvic floor

- ▶ Relaxation techniques
- ▶ Diaphragmatic breathing
 - ▶ Demonstrate

Benefits

- ▶ Our goal is to get patients back or better when they came in and back to normal activity without pain or fear of incontinence
- ▶ Pelvic floor rehab has proven beneficial to avoid surgery and medication
- ▶ Return to recreational and societal functions without fear voided