#ideaworld

IDEA WORLD CONVENTION
FITNESS • NUTRITION • BUSINESS

Pelvic Floor Dysfunction; 5 Key Exercises

PRESENTED BY

Brian Richey and Helen Vanderburg

Balanced Body Faculty

Integrated Movement Specialist™

balanced body

Integrated Movement Specialist™ Certification

IMS candidates learn how to optimize client training:

- Learn **Movement Quality** as foundation of every training method
- Develop efficient **Movement Analysis and Recommendation** skills
- **Gain new programming t**o attract clients and grow your busine
- Join elite Balanced Body **global** community of movement pros

The **Integrated Movement Specialist** certificate positions you as an expert in **movement performance**, enabling you to **retain and attract clients**!

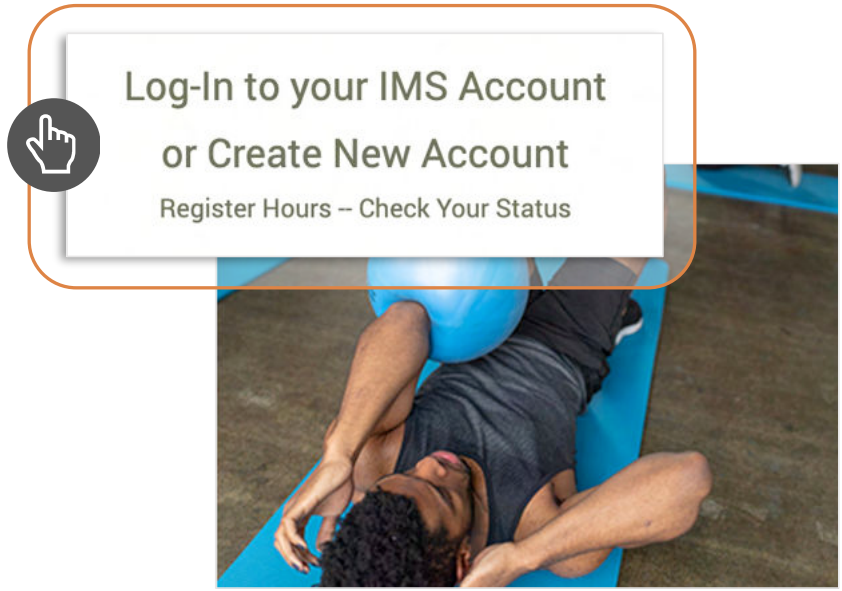
Integrated Movement Specialist™

balanced body

Register for your Integrated Movement Specialist™ certificate today!

GET STARTED!
Sign up and begin your IMS journey today.

- Visit the **Education page https:// sites.pilates.com/integrated-movement/**
- Create your account, enter the IMS course(s) you've taken
- Visit your account to track your progress!



Integrated Movement Specialist™

balanced body

Scan the QR Code for this Workshop

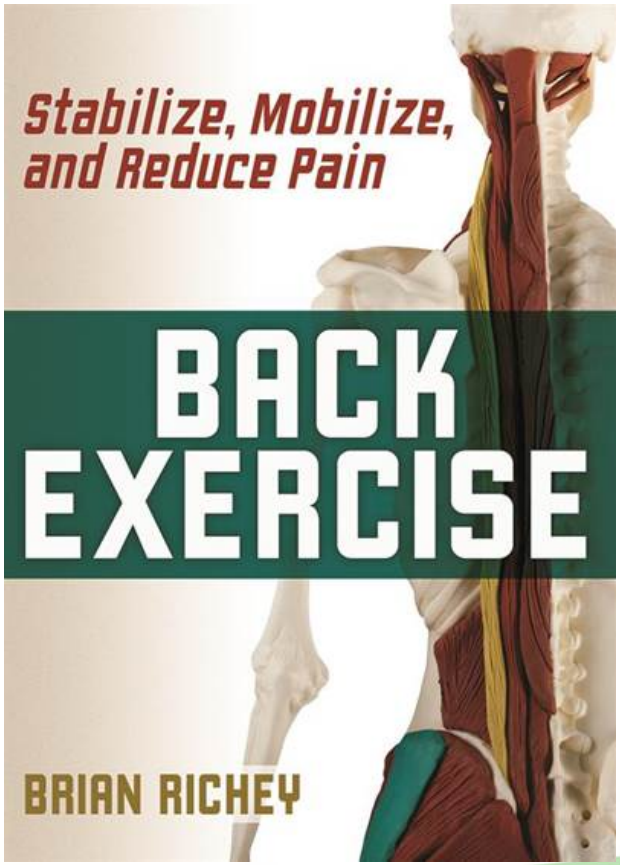
Receive copies of the handouts and connect with us!

Back Exercise: Stabilize, Mobilize and Reduce Pain

By Brian Richey

balanced body INTEGRATED MOVEMENT

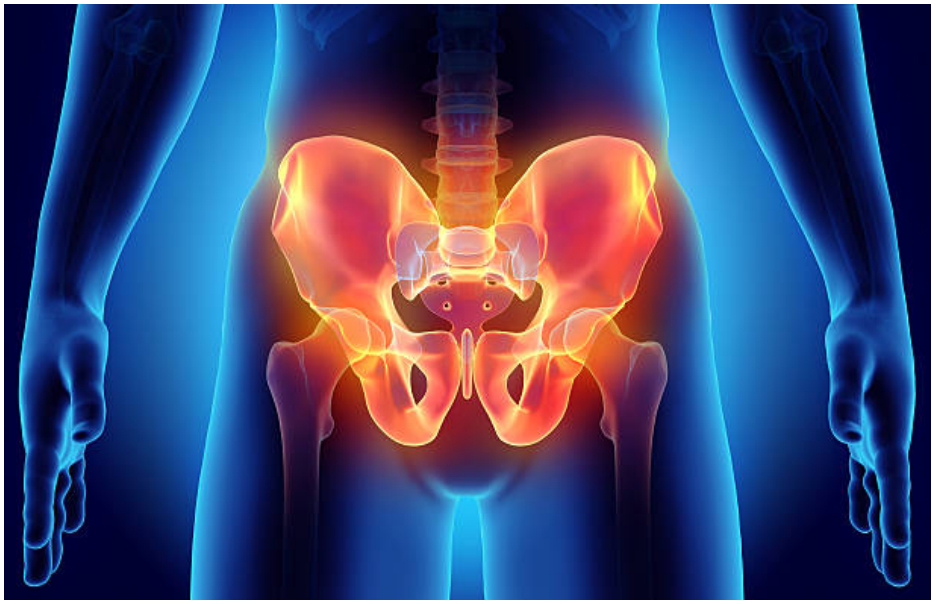
My new book deals is for anyone who has or has a client dealing with low back pain. It goes into depth on specific spinal pathologies as well as non-specific low back pain, explaining each pathology, highlighting the contraindications and prescribing specific exercise programing to train and progress them safely.



Purpose of the Pelvic Floor

- Support the internal organs
- Control urination and defecation
- Create sexual response in men and women
- Support Pregnancy and childbirth
- Primary connection point on the midline of the body

Advantages of a Healthy Pelvic Floor



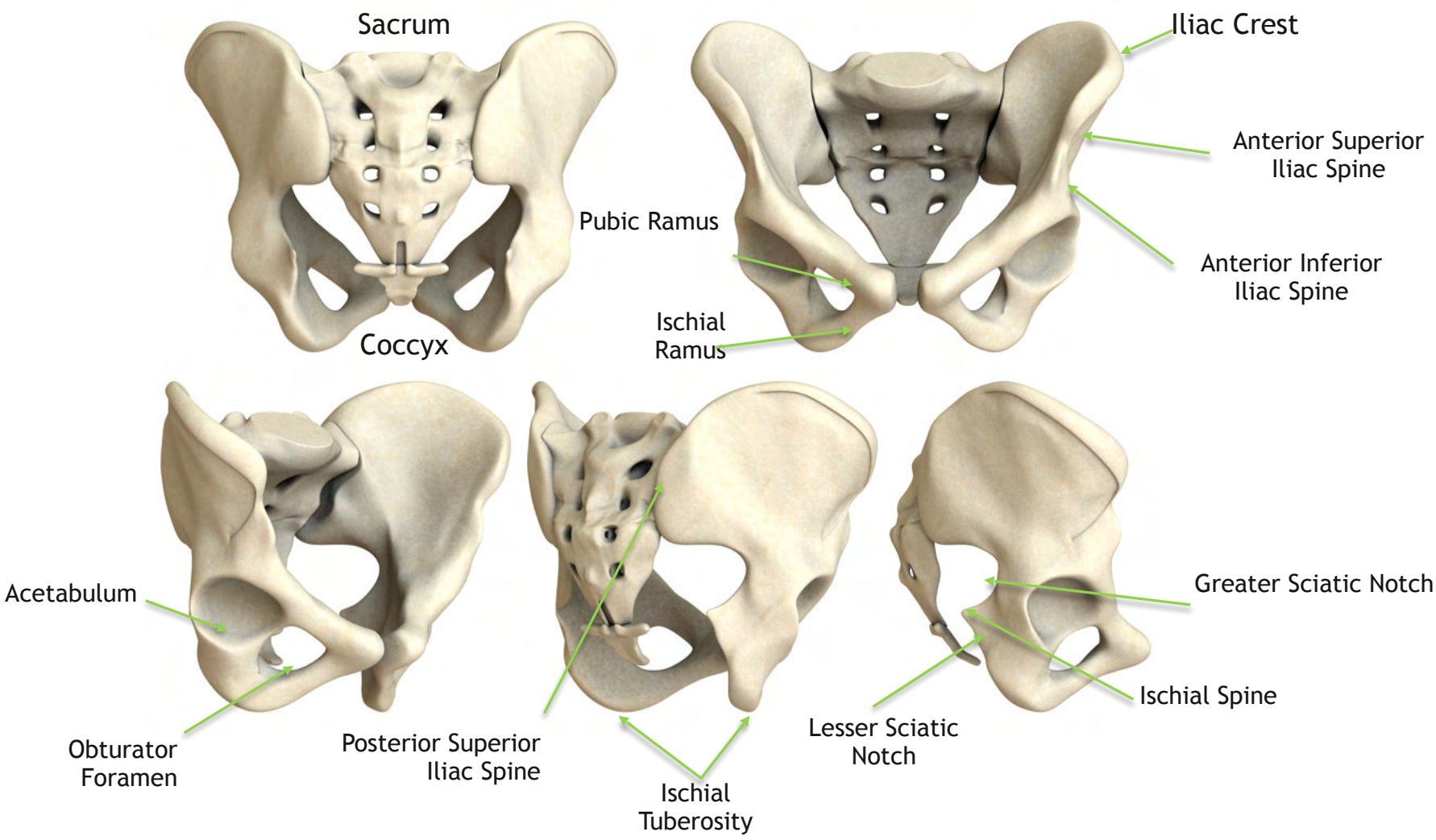
- Ability to control bowel and bladder function
- Decreased likelihood of organ prolapse
- Increased sexual function and satisfaction
- Ease of pregnancy, labor, delivery and post natal recovery

Muscles Influencing the Pelvic Floor

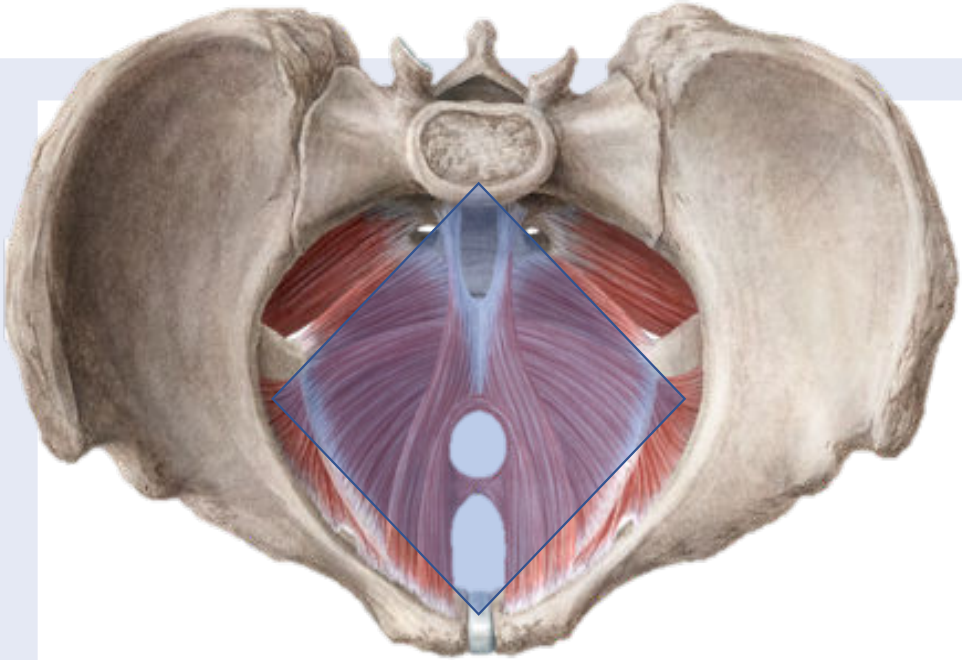
- Transverse abdominis
- Internal oblique abdominals
- External oblique abdominals
- Rectus abdominis
- Adductors
- Deep external hip rotators
- Gluteus maximus

Muscles of the Pelvic Floor

- Piriformis
- Obturator Internus
- Levator Ani (Puborectalis, Pubococcygeus, Iliococcygeus)
- Coccygeus
- Perineum



Pelvic Floor = Pelvic Diaphragm + Perineum

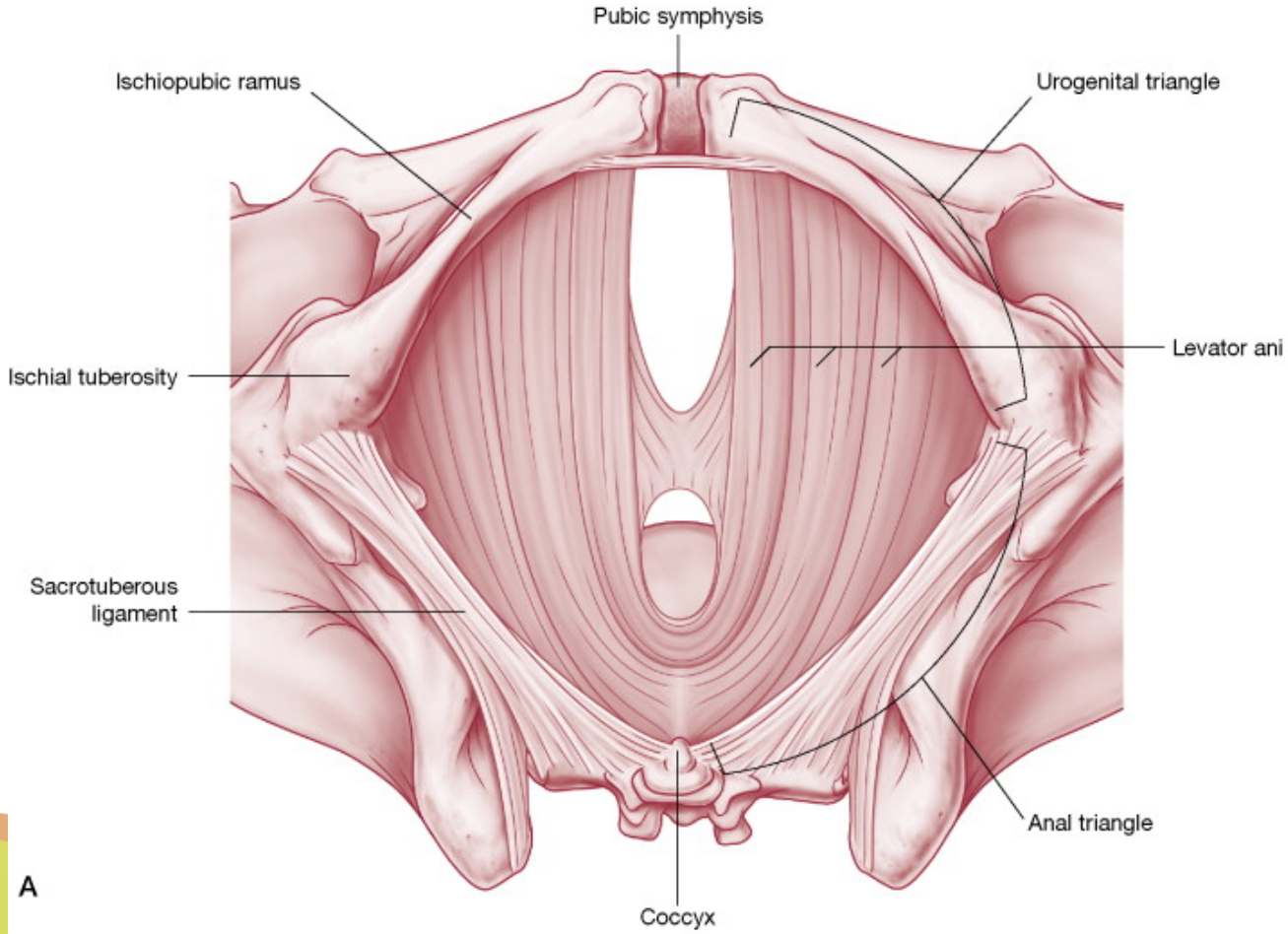


Pelvic Diaphragm

Muscles which form the broad thin muscular floor of the pelvis

Pelvic hammock, referred to as Levator ani

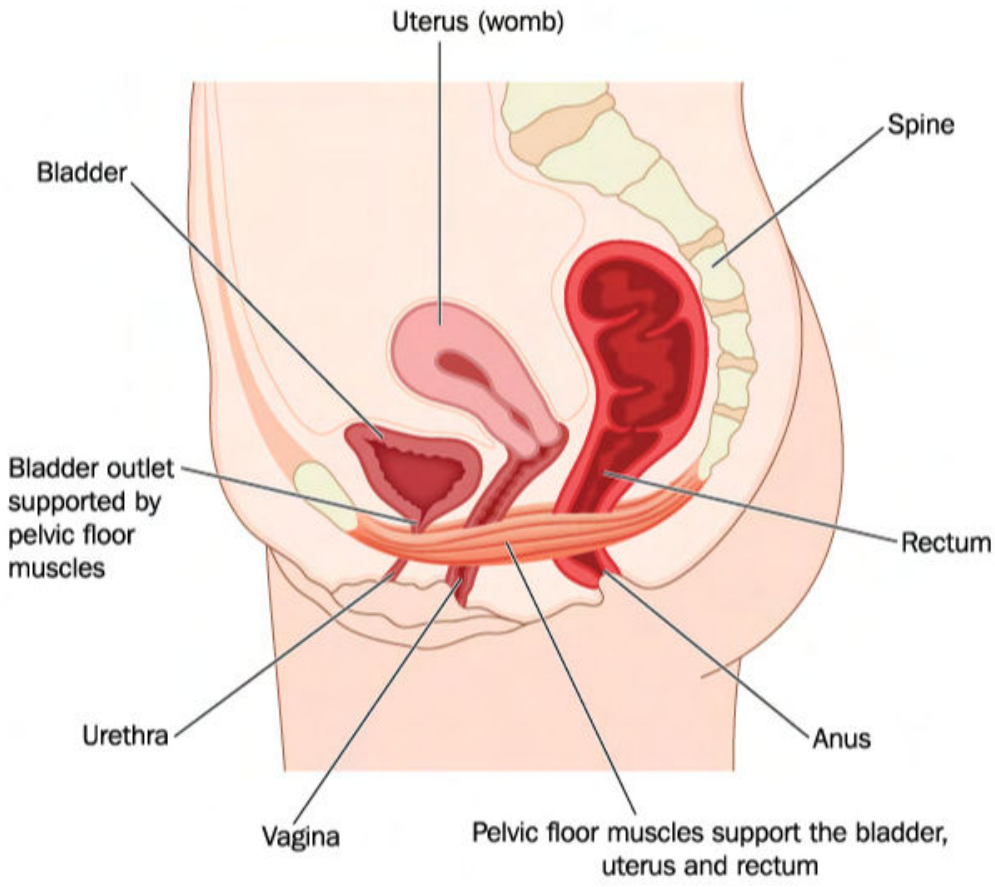
Levator Ani



A

Levator Ani

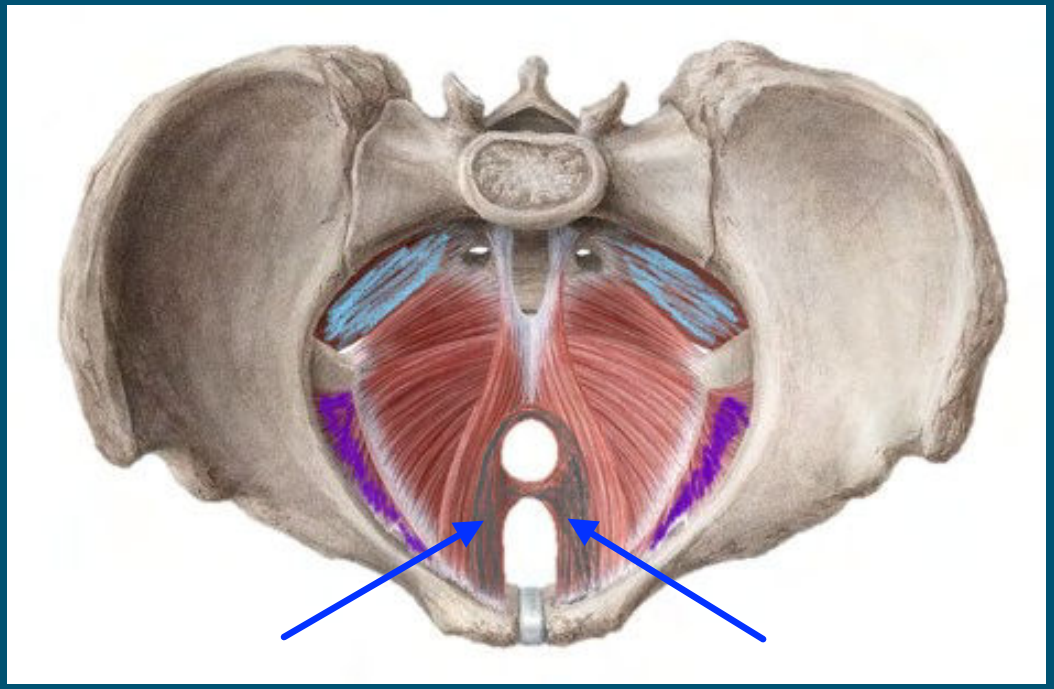
balanced body INTEGRATED MOVEMENT



Puborectalis

Thick U-Shaped Muscle

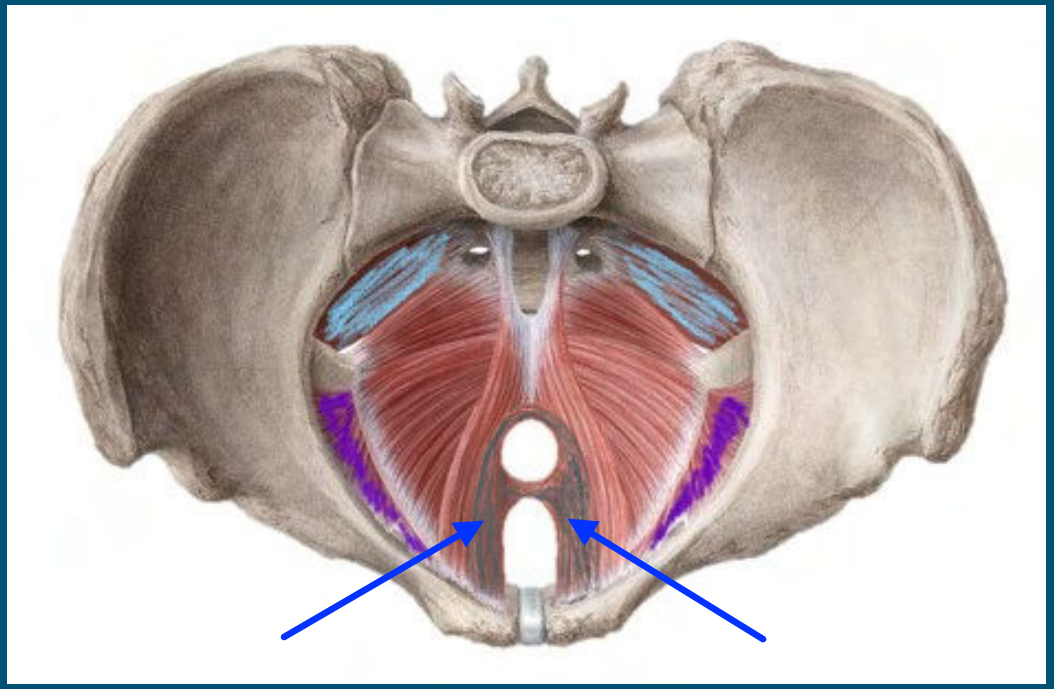
Attaches to the bodies of pubic bone, past urogenital hiatus, around anal canal. Becomes one with Pubococcygeus.



Puborectalis

Main function is to maintain fecal continence and relax during defecation

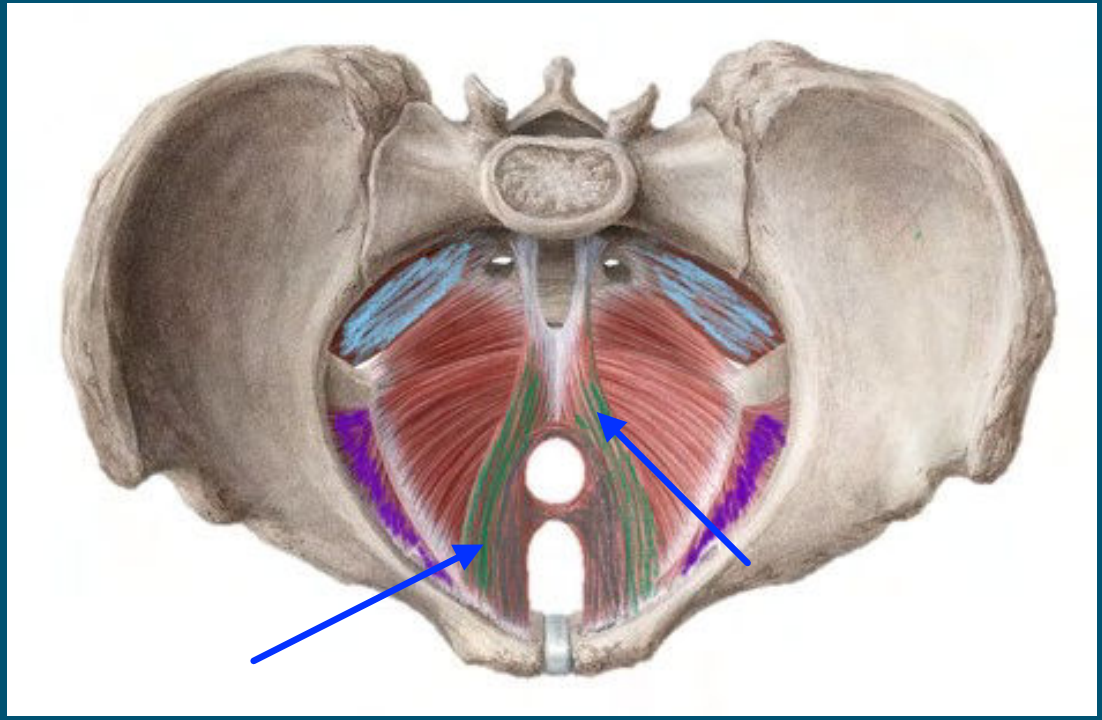
Some fibers flank the urethra in the male and vagina in the female. These fibers important for preserving urinary continence, especially with increase in intra-abdominal pressure (i.e. sneezing)



Pubococcygeus

The pubococcygeus muscle controls urine flow and contracts during orgasm as well as assisting in male ejaculation. It also aids in childbirth as well as core stability.

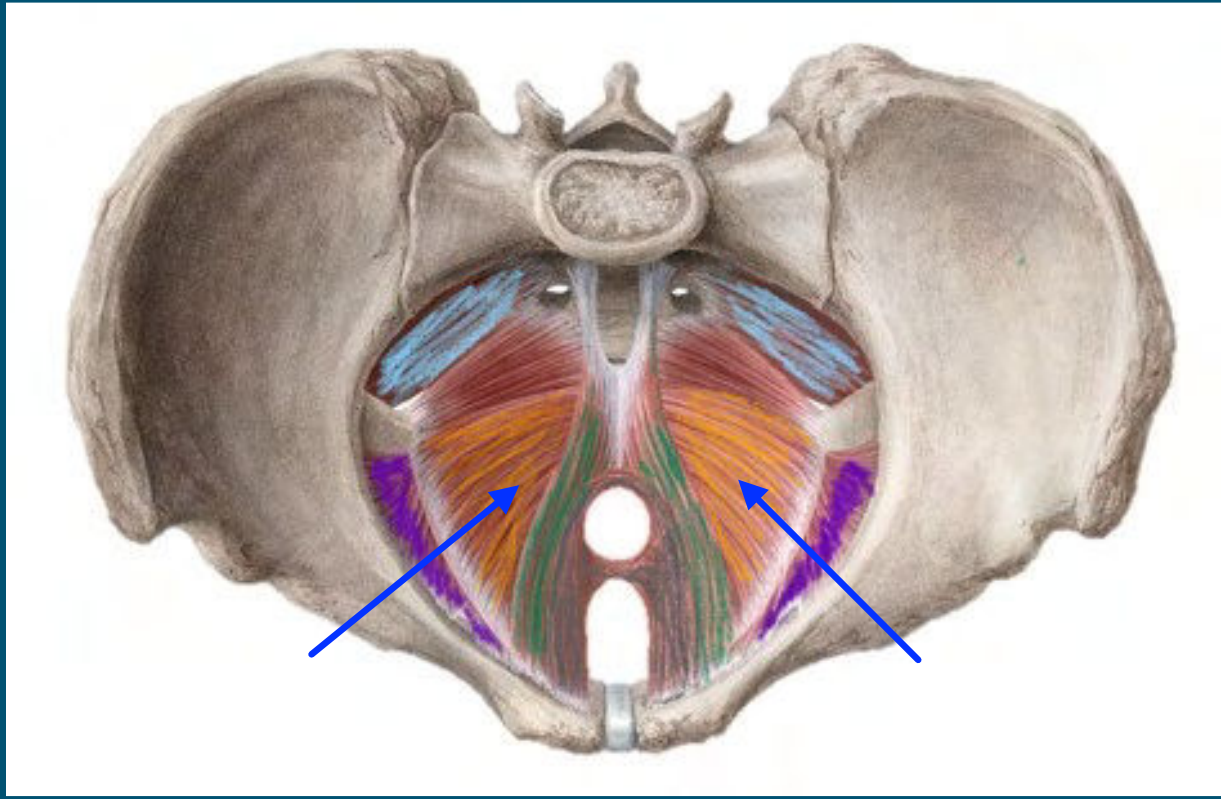
A strong pubococcygeus muscle has also been linked to a reduction in urinary incontinence and proper positioning of the baby's head during childbirth.



Iliococcygeus

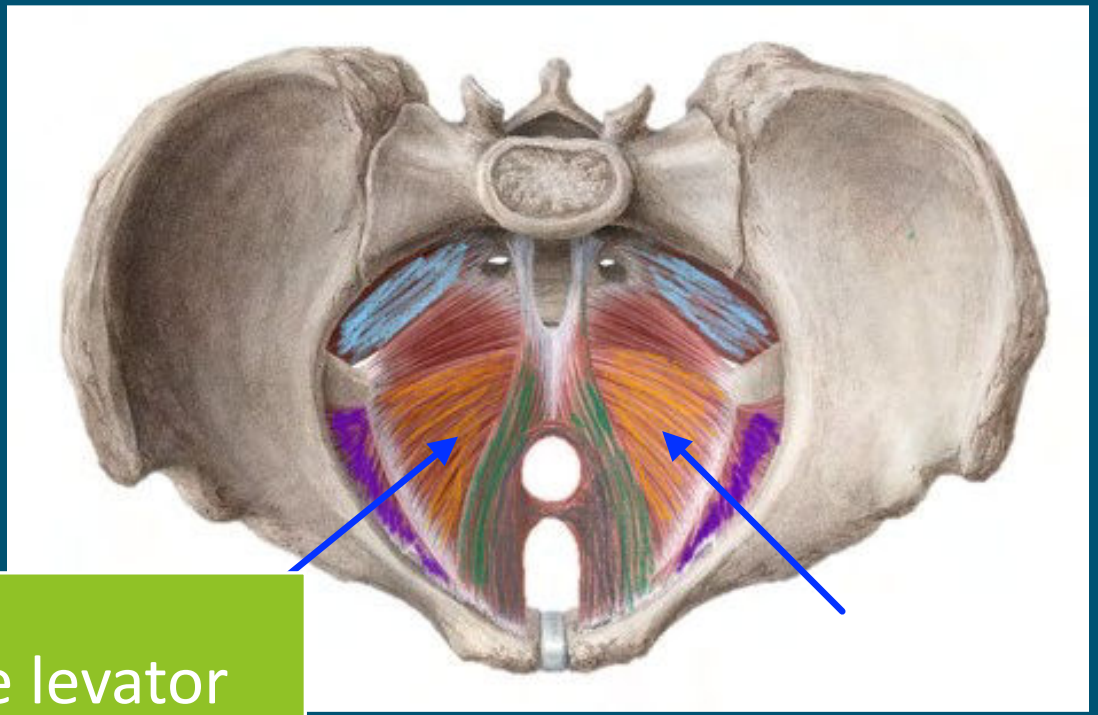
This muscle puts the "levator" in levator ani! Its action elevates the pelvic floor

Made up of a good number of Type I muscle fibers (slow twitch, postural)



Iliococcygeus

Thin and broad muscle, may be replaced by fibrous tissue.



The iliococcygeus portion of the levator ani attaches to the lateral walls of the pelvis via the obturator fascia through the tendinous arch of the obturator fascia.

balanced body INTEGRATED MOVEMENT

Puborectalis

- U shaped sling; thick muscle
- Bodies of pubic bone, past urogenital hiatus, around anal canal
- Main function is to maintain fecal continence and relax during defecation
- Some fibers flank the urethra in the male and vagina in the female. These fibers important for preserving urinary continence, especially with increase in intra-abdominal pressure (i.e. sneezing)

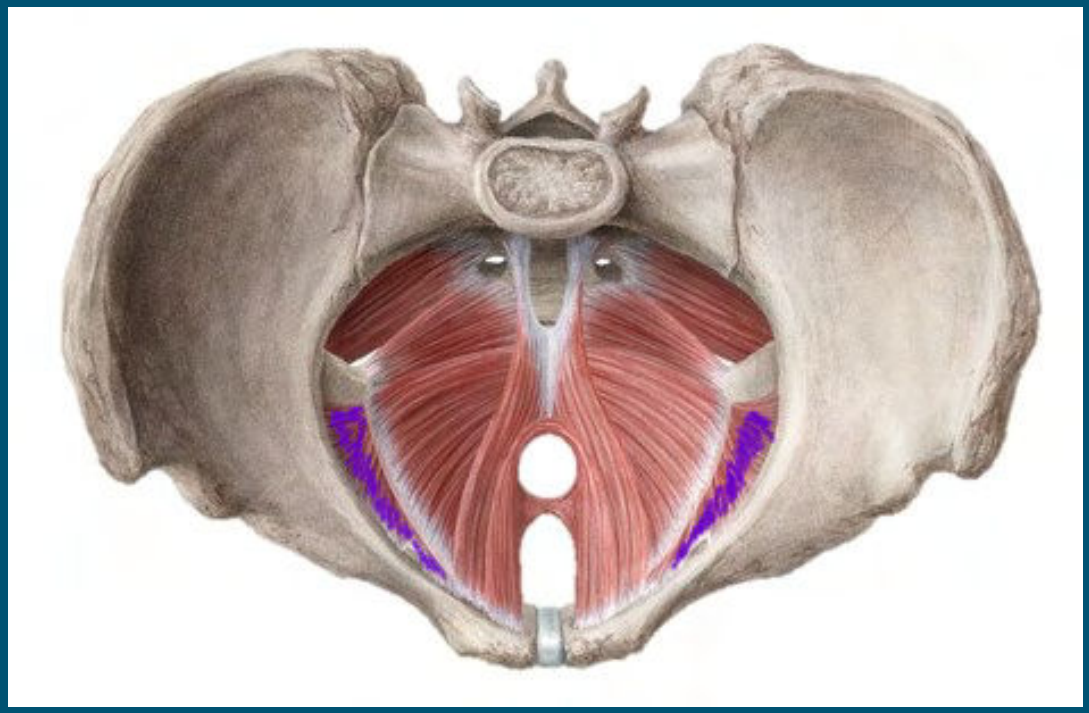
Pubococcygeus

- Main constituent of the levator ani
- Make their attachments from body of pubic bone to coccyx and anococcyegeal ligament

Iliococcygeus

- Has thin muscle fibers
- Start at ischial spines and posteriorly attaches to the coccyx and the anococcygeal ligament
- This muscle puts the “levator” in levator ani! Its action elevates the pelvic floor

Obturator Internus



Internally within pelvis covering obturator foramen, through the lesser sciatic notch to make its attachment onto the superior/ medial aspect of the greater trochanter

Obturator fascia – suspensory fascia supporting the levator ani

Obturator Internus

Posterior
View

Origin:

- Fills lesser pelvis covering inferior surface of obturator membrane and goes through the lesser sciatic notch

Insertion:

- Medial surface of greater trochanter of femur
- Proximal and superior to trochanteric fossa.

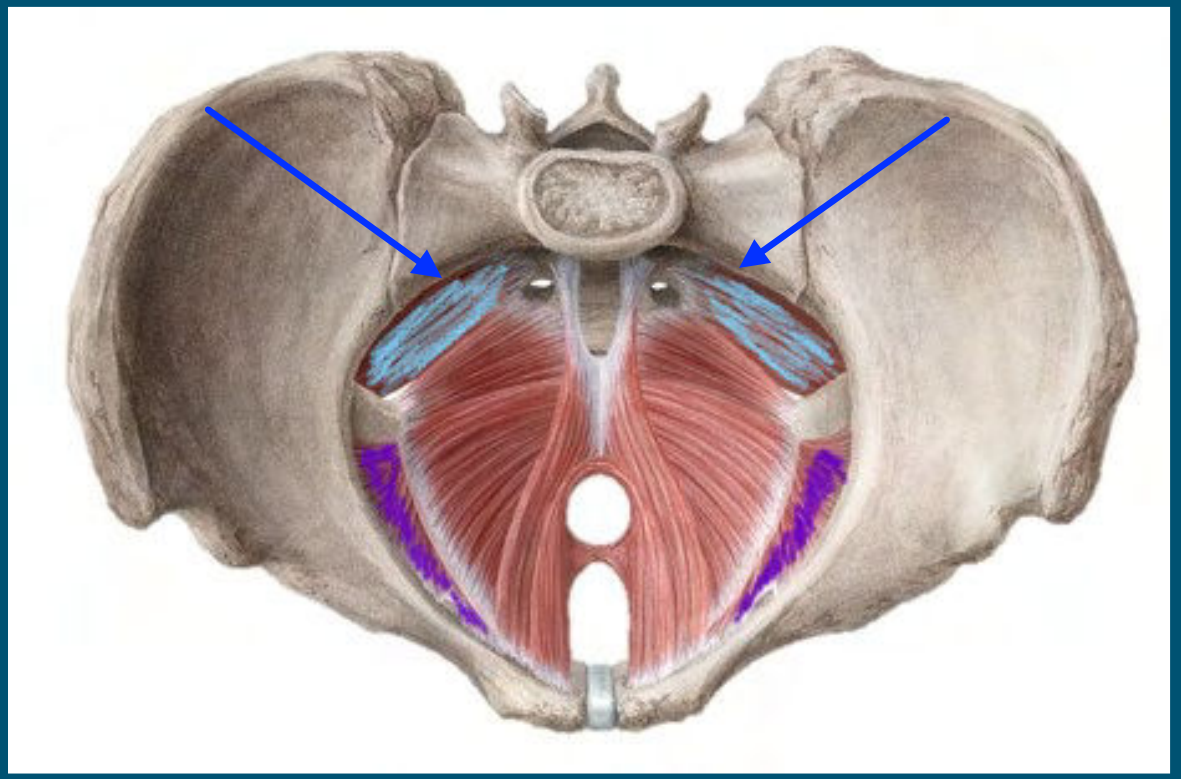
Actions:

- Laterally rotates
- Abducts and laterally rotates extended hip
- Abducts leg when hip is neutral, flexed or extended
- Stabilizes hip during walking
- Serves as attachment point for Levator Ani

Piriformis

Shares a tendon with Coccygeus which in counter nutation closes the posterior pelvic floor

Creates the back wall of the pelvis



Coccygeus

Origin:

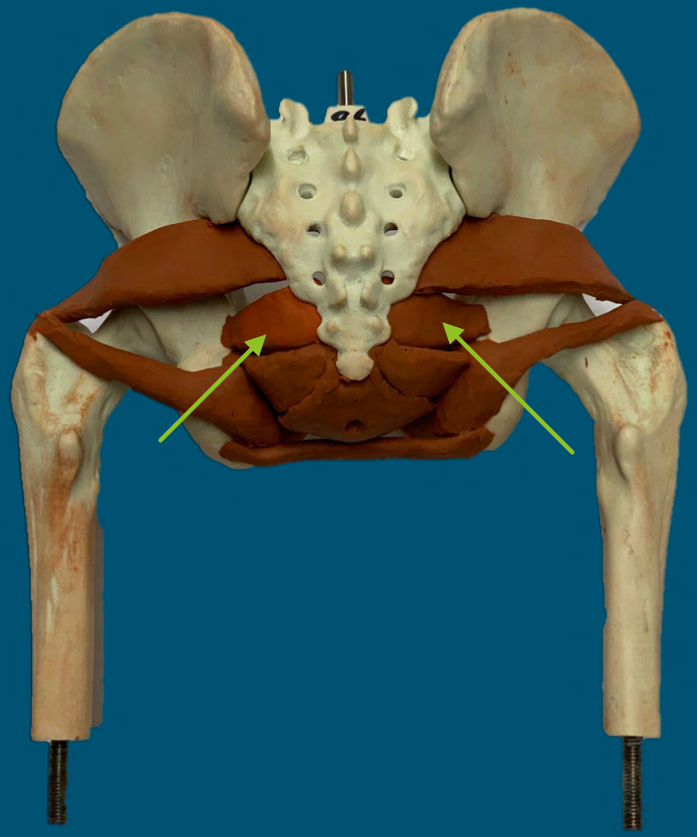
- Ischial tuberosity

Insertion:

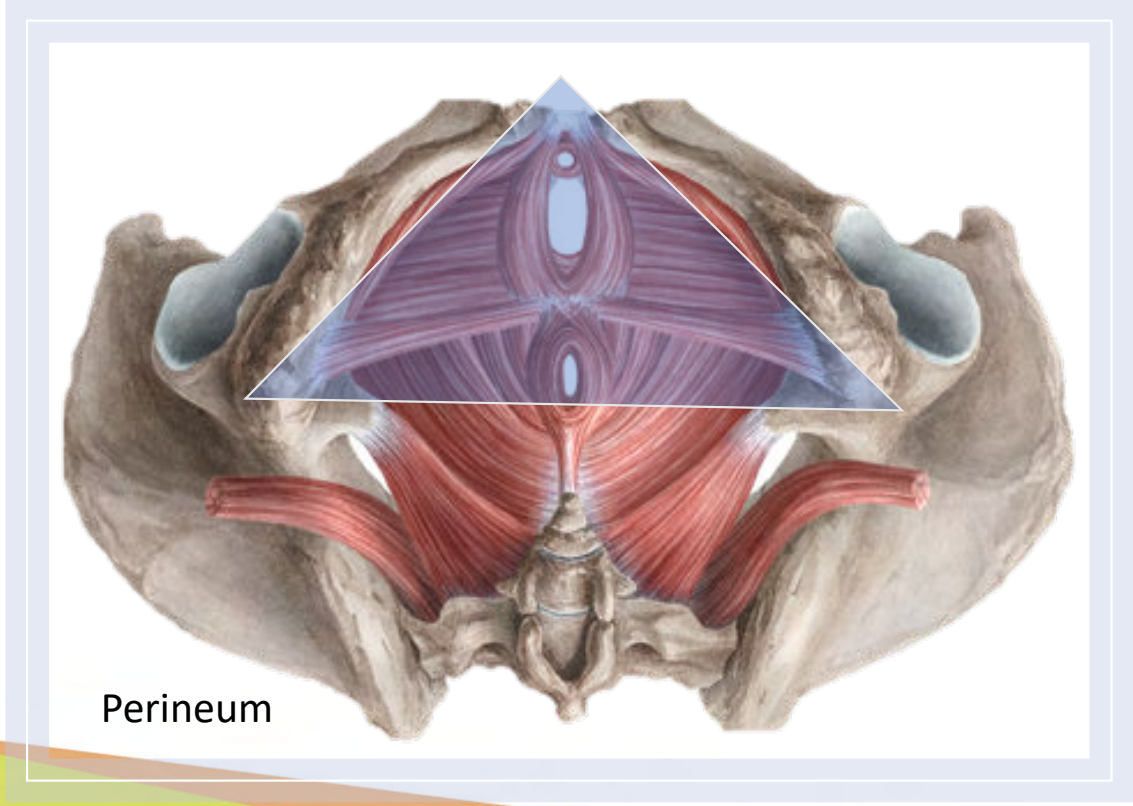
- Coccyx.

Actions:

- Pulls coccyx forward to close the posterior part of the pelvis.

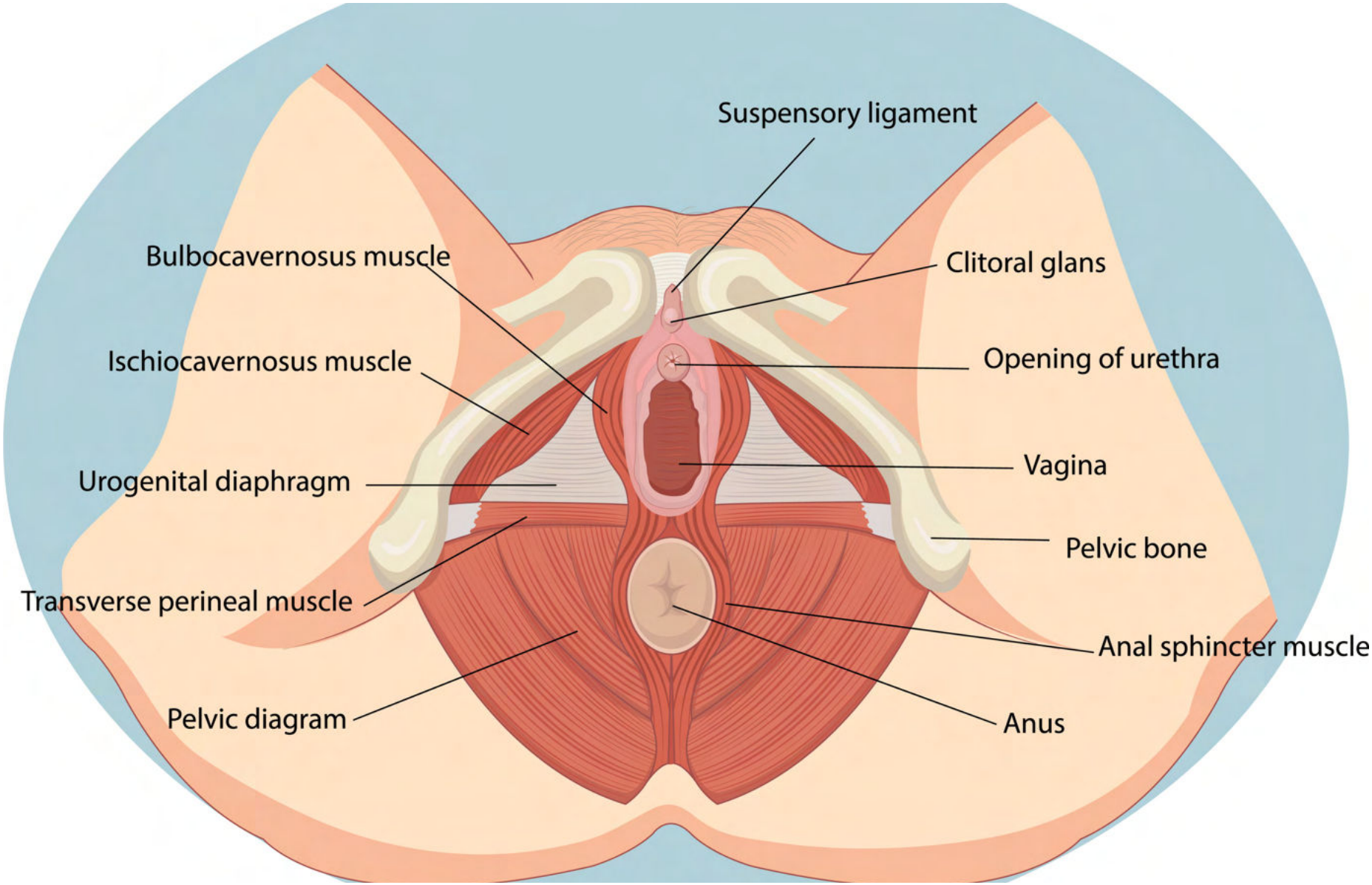


Pelvic Floor = Pelvic Diaphragm + Perineum



Superficial the pelvic diaphragm

Triangle of muscles which span pubic bone to sitting bones

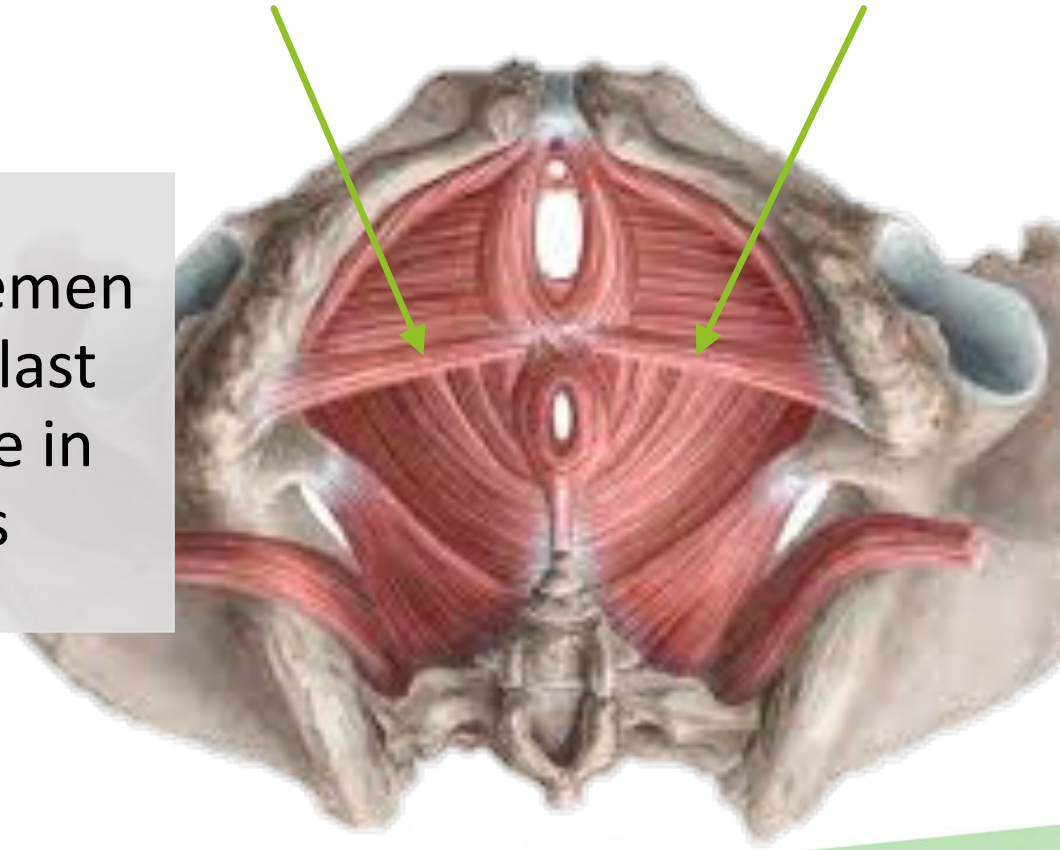

Suspensory ligament
Bulbocavernosus muscle
Clitoral glans
Ischiocavernosus muscle
Opening of urethra
Vagina
Urogenital diaphragm
Pelvic bone
Transverse perineal muscle
Anal sphincter muscle
Pelvic diagram
Anus

Deep Transverse Perineal

Innervated by the pudendal nerve

Fixation of the perineal body (central tendon of perineum)

Expulsion of semen in males and last drops of urine in both sexes

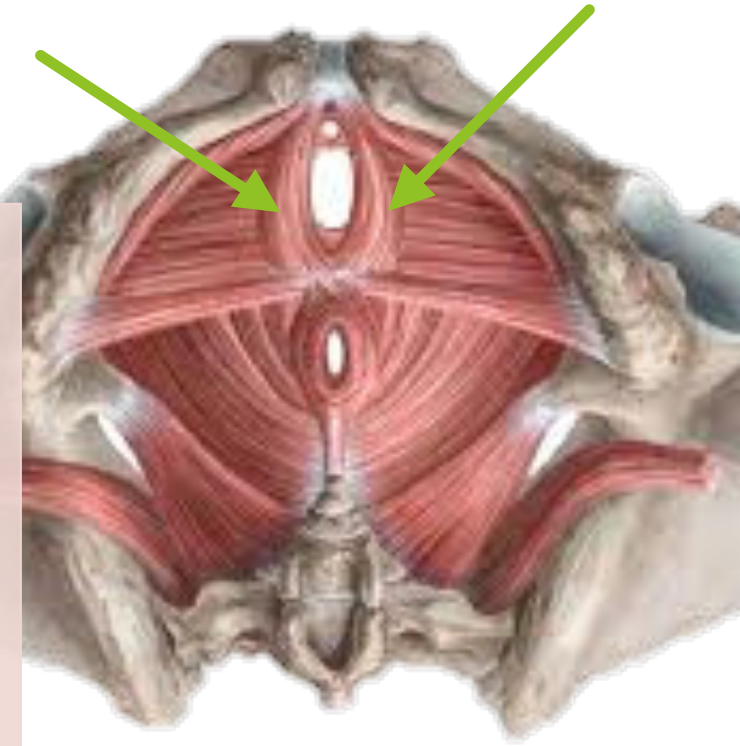


Bulbospongeosus

In females it contributes to clitoral erection and the contractions of orgasm, and closes the vagina

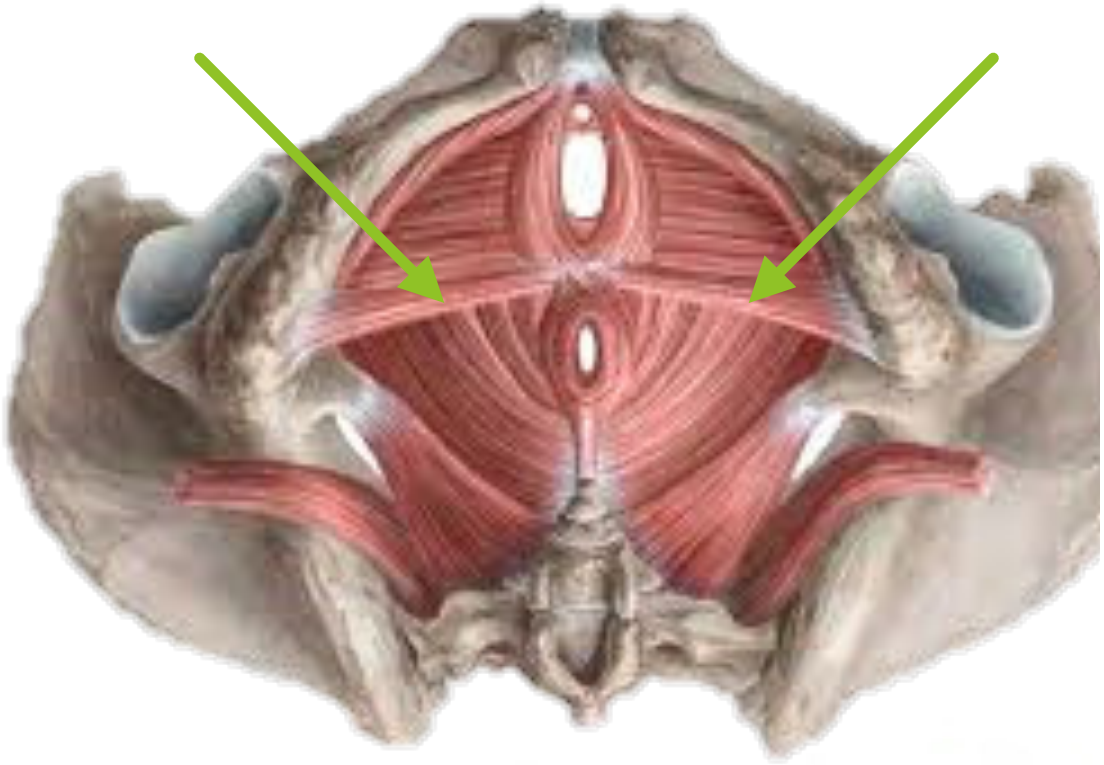
In males it contributes to erection, the contractions of orgasm, and ejaculation

This muscle serves to empty the canal of the urethra, after the bladder has expelled its contents



Superficial Transverse Perineal

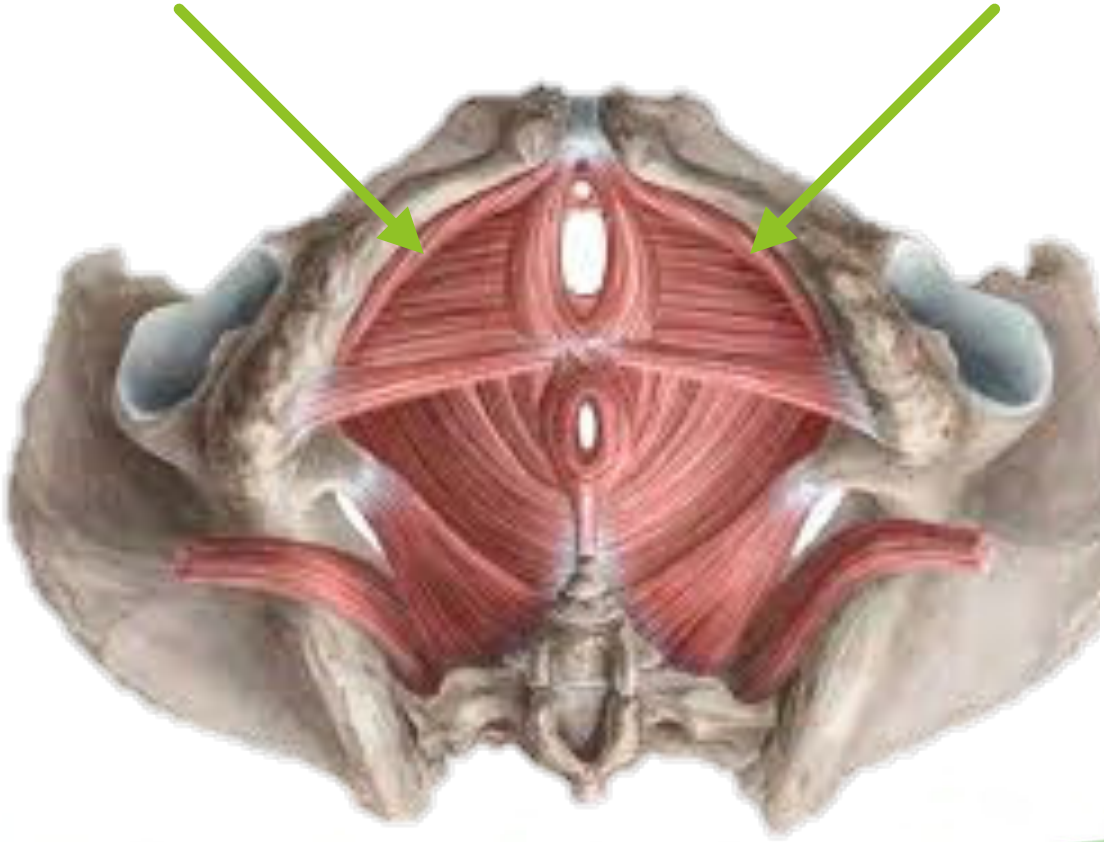
A **narrow muscular slip**, which passes more or less transversely across the perineal space in front of the anus



Ishiocavernosus

balanced body INTEGRATED MOVEMENT

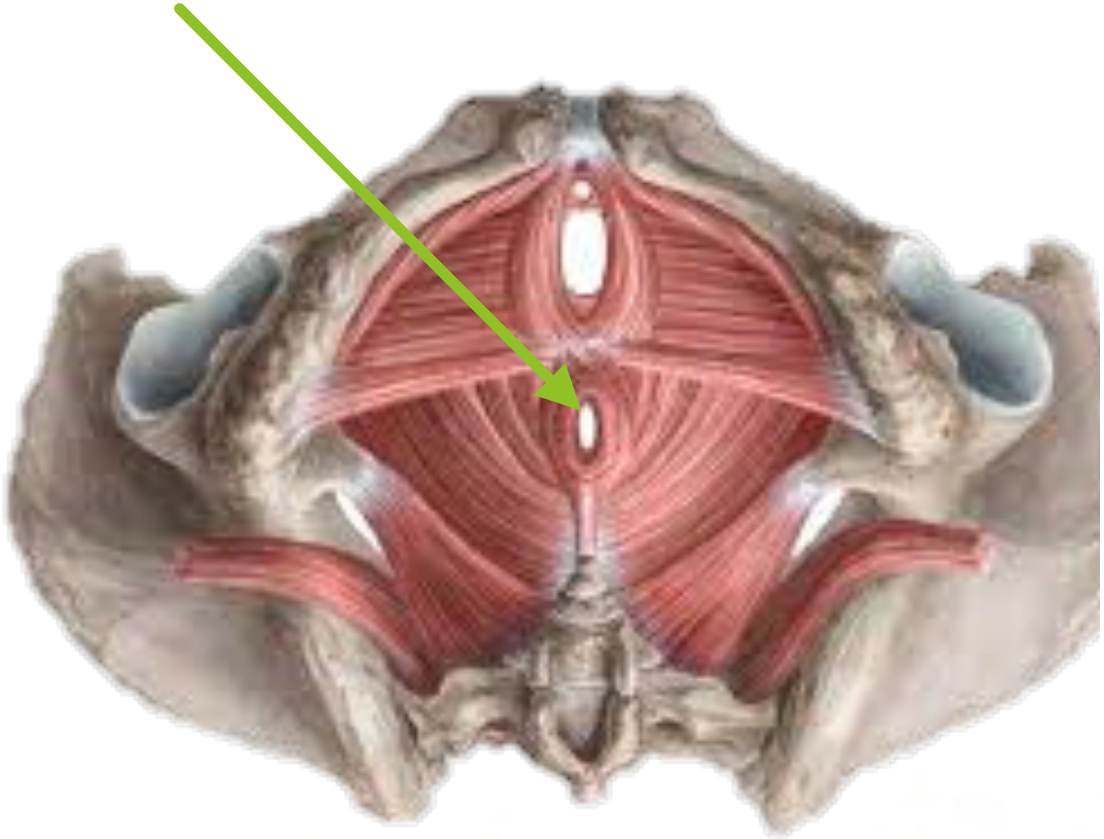
- In males stabilize and maintain the erect penis
- In females tenses the vagina during orgasm. Kegel exercises (also known as pelvic floor exercises) can help tone the ischiocavernosus muscle



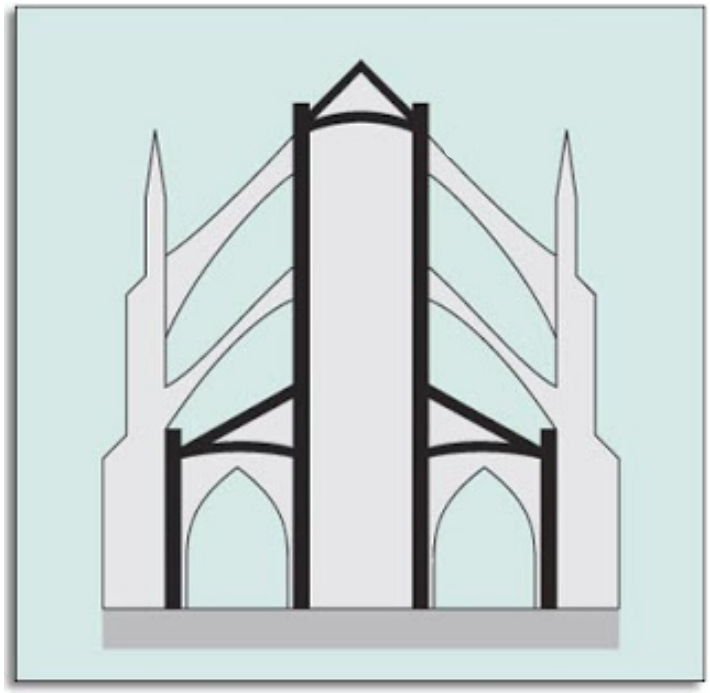
External Anal Sphincter

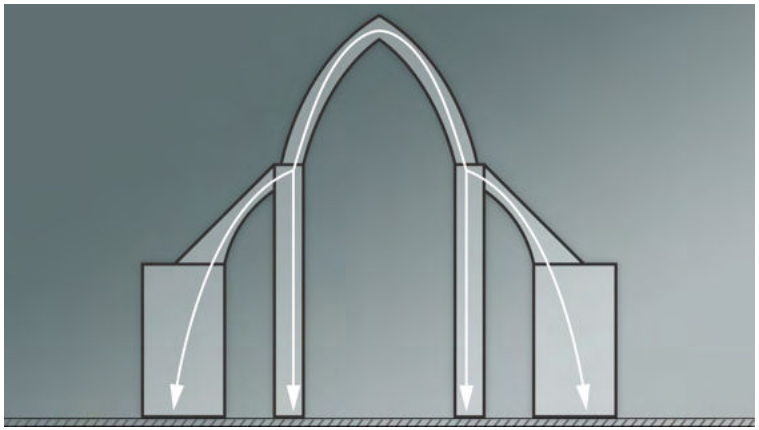
balanced body INTEGRATED MOVEMENT

The double muscular ring surrounding the anal canal that relaxes during defecation



External Support





Flying Buttress

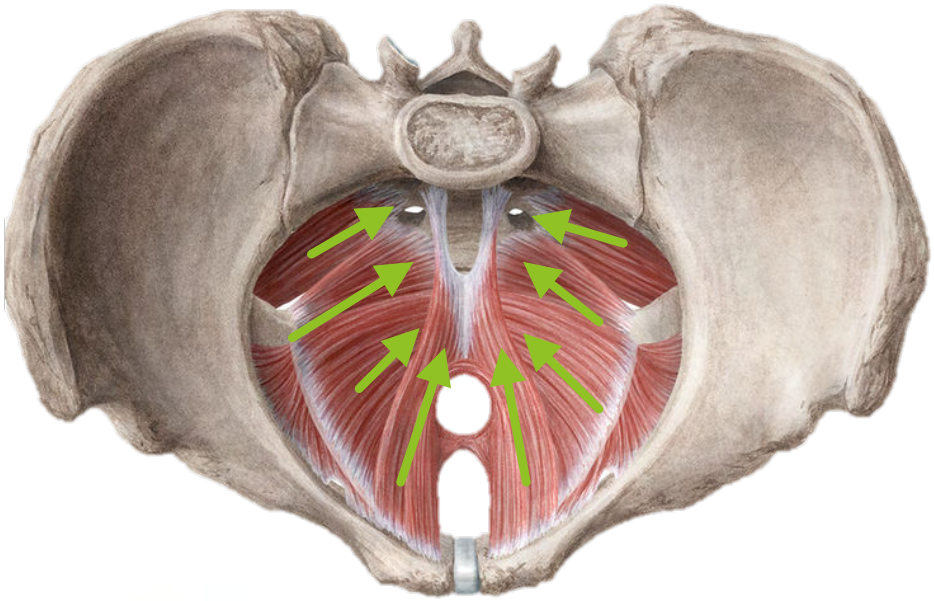
Support from the outside in

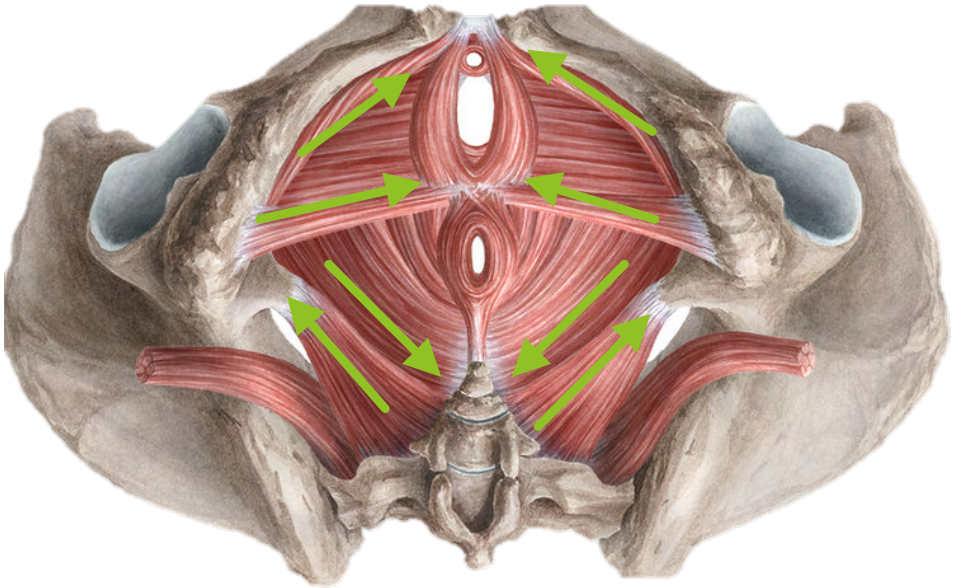
Internal Support

Rebar (Reinforcement Bar)

Support from the inside out

Internal Support





Tonicity and the Pelvic Floor

Pelvic Floor muscles work tonically and reflexively to maintain continence. Antigravity!

Approx 70% slow twitch to 30% fast twitch

Pelvic floor is always active except before and during voiding

Age changes muscle fiber type, diameter associated with nerve denervation.

Fascial laxity and smoot muscle dysfunction often involved

Exercise can activate latent motor units (MacLeod, 1983)

Science Direct Topics

Tonicity and the Pelvic Floor

INTEGRATED MOVEMENT

PFM contribute

- Stability of lumbar spine
- Continence and elimination of bladder and bowel
- Sexual pleasure and function

To restore tonicity

- PFM have passive, neural, reflexive and active control
- Prolonged and gentle holds

Sensation and the Pelvic Floor

balanced body INTEGRATED MOVEMENT

Sensory feedback activates muscle spindles

Slow or rapid stretch generates efferent motor nerves to fire

Dynamic brief muscle activation (think sneeze or cough) will do the same

Neural stimulation should precede increase in intra-abdominal pressure

Pain and dysfunction may be a response to delay in timing

Can you have too strong or tight a pelvic floor?

Tight Pelvic Floor

- If your pelvic floor is too tight it can make it difficult to release the bowels or to urinate.
- Also if too tight intercourse can be painful to nearly impossible.
- They should see a PT that specializes in pelvic floor issues. They will probably need internal release work.
- What we can have them focus on is releasing those muscles during exercise. Don't hold them in and make sure they are breathing.

Causes of Pelvic Floor Dysfunction

balanced body INTEGRATED MOVEMENT

- General lack of fitness and muscle tone
- Being overweight.
- Poor posture and excessive sitting.
- Pregnancy and childbirth.
- Trauma following surgery such as prostatectomy or episiotomy.
- Trauma to pelvis, hip or spine
- Hormonal changes
- High impact physical training

Symptoms of Pelvic Floor Dysfunction

- Leaking - uncontrolled voiding
- Incontinence – inability to void
- Sexual dysfunction
- Organ prolapse
- Pelvic pain
- Complications in pregnancy, delivery or post partum.

- Leaking - uncontrolled voiding
- Sexual dysfunction
- Organ prolapse
- Complications in pregnancy, delivery or post partum.

- Pelvic pain
- Sexual dysfunction
- Incontinence – inability to void
- Complications in pregnancy, delivery or post partum.

Incontinence and Erectile Dysfuction

25% - 40% of women, 10% of men and 17% of children under 15 suffer from urinary incontinence.

Incontinence is one of the primary reasons for admitting elderly patients to nursing homes.

Performing exercises specific to the pelvic floor can decrease or eliminate symptoms of incontinence.

There are an estimated 30 million men with erectile dysfunction

70% experience improvement with a pelvic floor strengthening program

40% will achieve full resolution.

- Dorey and Feneley, British Journal of Urology, 2005 Sep; 96(4) 595-7

Pelvic Position and Pelvic Floor Activation

balanced body INTEGRATED MOVEMENT

Anterior Tilt

generally shortens the anterior pelvic floor and lengthens the posterior pelvic floor.

Posterior Tilt

generally lengthens the anterior pelvic floor and shortens the posterior pelvic floor.

Sitting and Inactivity

lead directly to decreased activation of the pelvic floor.

Principles of Pelvic Floor Training

- Educate the client about the purpose of pelvic floor training.
- Find imagery and exercises that work for the client.
- Find the right balance of release work and strengthening exercises.
- Encourage consistency by integrating exercises into clients daily activities or exercise routine.

Principles of Pelvic Floor Training

balanced body INTEGRATED MOVEMENT

- Kegels Refined
- Identify anterior and posterior activation
- Identify levels from superficial to deep
- Train endurance
- Find the right balance of release work and strengthening exercises.
- Encourage consistency by integrating exercises into client's daily activities or exercise routine

Pelvic Floor Training - Creating Sensation

Breathing and the pelvic floor

- Supine
- Seated
- Standing

Pelvic Floor Awareness

- Rocking
- Roller
- Wagging the coccyx
- Feeling through the bones
- Narrowing the pelvis
- Arch and curl
- Lateral shift
- Seated Rotations

Pelvic floor activation on roller

balanced body INTEGRATED MOVEMENT

The following exercises have all been tested with EMG imaging to determine:

- If the exercise increases pelvic floor muscle activation
- At what phase of the exercise the activation is optimized

These exercises are part of the Pfilates program developed by Dr. Bruce Crawford, MD.

1. Perform a number of repetitions at a normal tempo.

2. Hold the exercise at the point of maximum engagement and add an isometric contraction for a few seconds.

3. Pulse the exercise at the point of maximum engagement while consciously engaging and releasing the pelvic floor.

- High intensity short burst contractions engage fast twitch fibers
- Superficial muscles of Pelvic Floor contain a large number of fast twitch fibers & react to short and rapid increases in intra-abdominal pressure

The Pelvic Floor 5

Position	Exercise
• Supine • Sidelying • All Fours • High Kneeling • Standing	• Bridge • Clams • Cat • Hovering • Squat/Lunges

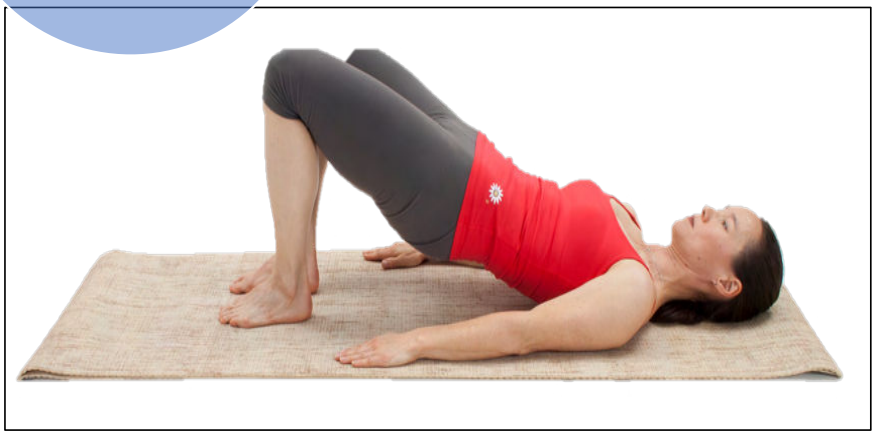
Bridge - Articulating

Pelvic curl

Half Bridge

Full Bridge

Maximum Exertion: Occurs at the highest point of the bridge



Coactivation of the glutes and TA activate PFM

Set 1
Move

Set 2
Hold

Set 3
Pulse

Co-contraction of glutes and adductors stimulates pelvic floor muscles

Use ball between knees for adductor coactivation

Clamshell

Raise top leg w. knee bent

Lower top leg w. knee bent

Maximum Exertion: Top leg at 45 degree angle

Exhale to raise leg, inhale to lower

Set 1	Set 2	Set 3
Move	Hold	Pulse

Use band around knees for piriformis and glute coactivation

All 4s Cat / Cow

Maximum Exertion: Full Cat pose with tail curled

Cat – Curl the tail

Curl – Extend the spine

Exhale to Cat, inhale to Cow

Set 1	Set 2	Set 3
Move	Hold	Pulse

Use ball between knees for adductor coactivation

Kneeling Squat

Kneeling - tall

Sit back on heels

Maximum Exertion: Occurs at top of the lift

Set 1	Set 2	Set 3
Move	Hold	Pulse

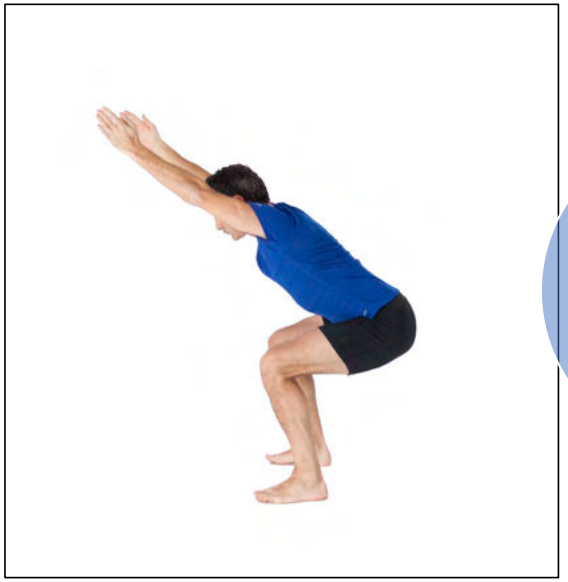
Use ball between ankles at ME for greater PF activation

balanced body INTEGRATED MOVEMENT

Squats

Legs shoulder width apart

Lower to ME and feel glutes and voluntary PF contraction



Maximum Exertion: Occurs at lowest point of squat

Exhale as you lower down, inhale as you rise up

Set 1	Set 2	Set 3
Move	Hold	Pulse

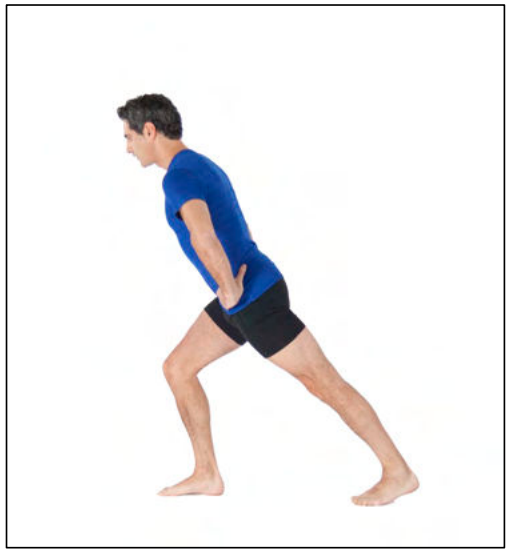
Use band around knees for piriformis and glute coactivation

balanced body INTEGRATED MOVEMENT

Lunges

Step forward and lower into a lunge

Feel glutes contraction of back leg



Maximum Exertion: Occurs at lowest point of lunge

Exhale as you lower down, inhale as you rise up

Set 1	Set 2	Set 3
Move	Hold	Pulse

Use band around shin of front leg and calf of back leg for glute coactivation

Integrated Movement Specialist™

balanced body

Scan the QR Code for this Workshop

Receive copies of the handouts and connect with us!

Integrated Movement Specialist™

balanced body

Certification for Personal Trainers and Group Ex Instructors

Why?

- Advanced knowledge of **Anatomy and Movement** to drive client success
- Master movement analysis and **expand your programming** repertoire
- Attract opportunities and **grow your business** in clubs, gyms, studios and clients
- Be a part of the elite Balanced Body Education **global community**

Trouble viewing Video? Watch online.
https://vimeo.com/321382697/22228e55b6

balanced body INTEGRATED MOVEMENT

Brian Richey
brian@fit4lifedc.com
backexercisebook.com
Insta: fit4lifedc

Helen Vanderburg
helen@helenvanderburg.com
Insta: vanderburghelen