

FEMALE ATHLETES: Your Pelvic Floor for a Strong Core

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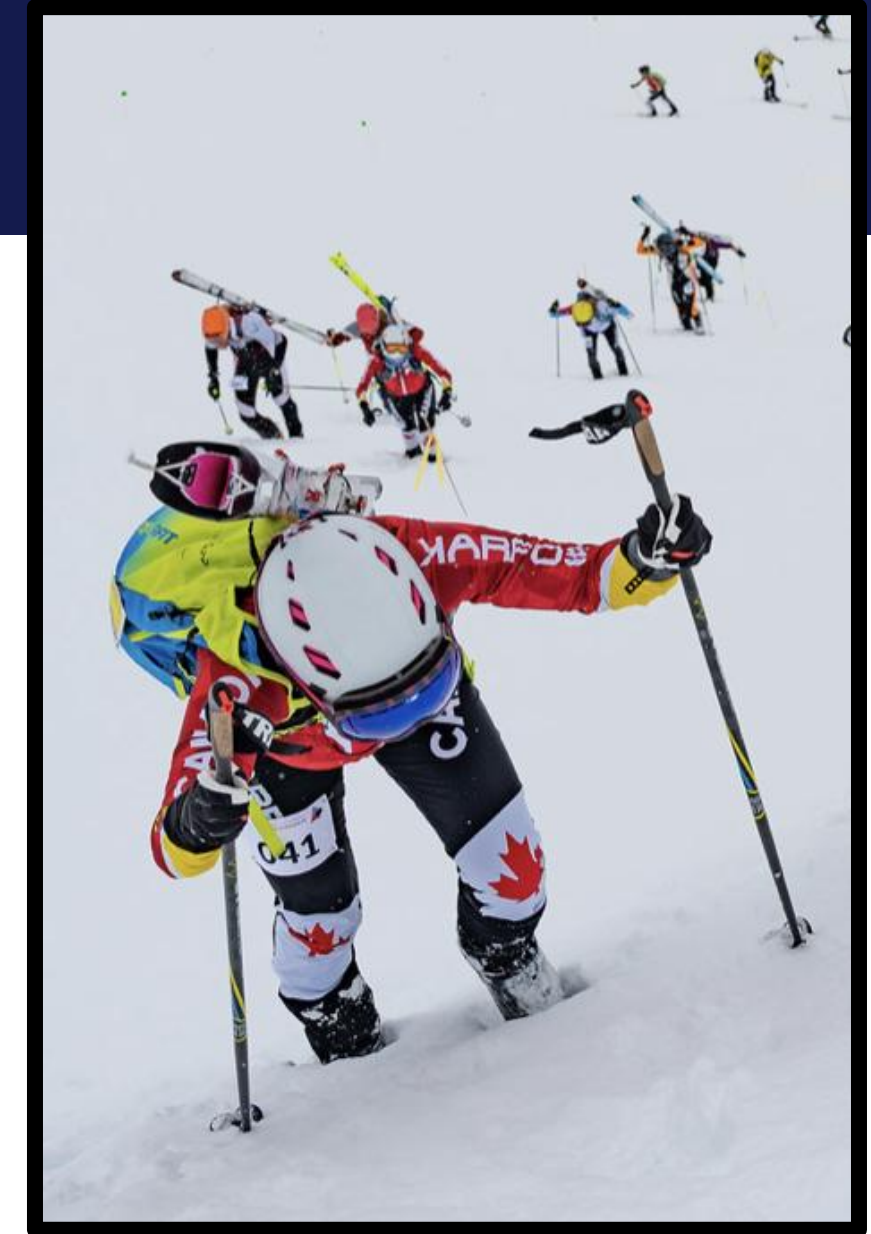
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Introduction

- Physiotherapist at Banff Sport Medicine
- Member of the Canadian National Ski Mountaineering Team

- Pelvic Health Courses:
 - UroSante Levels 1 & 2 (Treating Female Urinary Incontinence & Dyspareunia)
 - Piston Science with Julie Wiebe
 - Treating & Training the Female Athlete / Runner with Julie Wiebe
 - Downtraining for Pelvic PTs with Nicole Cozean
 - Pelvic PT Essentials with Nicole Cozean



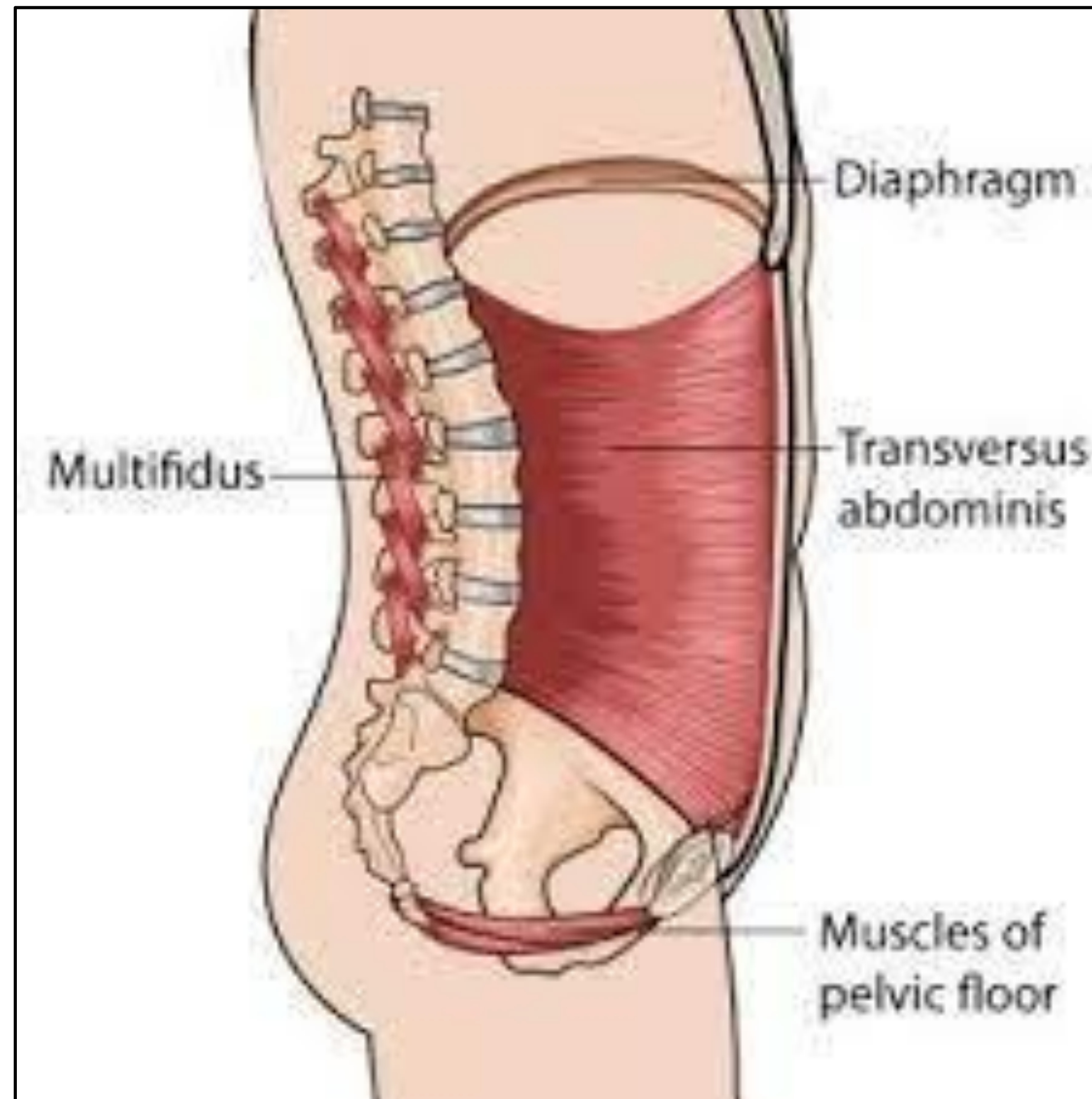
Outline

- Anatomy
- Alignment
- Breathing
- Common Pelvic Health Complaints With Exercise
- Interesting Research
- Pelvic Health Physio
- Running & Impact
- Key Points

Goal

- Leave today with more awareness of:
 1. Your pelvic floor muscles and how they interact with the rest of your deep “inner core”
 2. How your alignment may be affecting how well you can feel (1)
 3. How you might use (1) & (2) during exercise

Anatomy





Alignment

- Feel for weight distribution, PF, breath
- Feel TA, feel PF
- Ski Jump
- Ski Jump + feel again

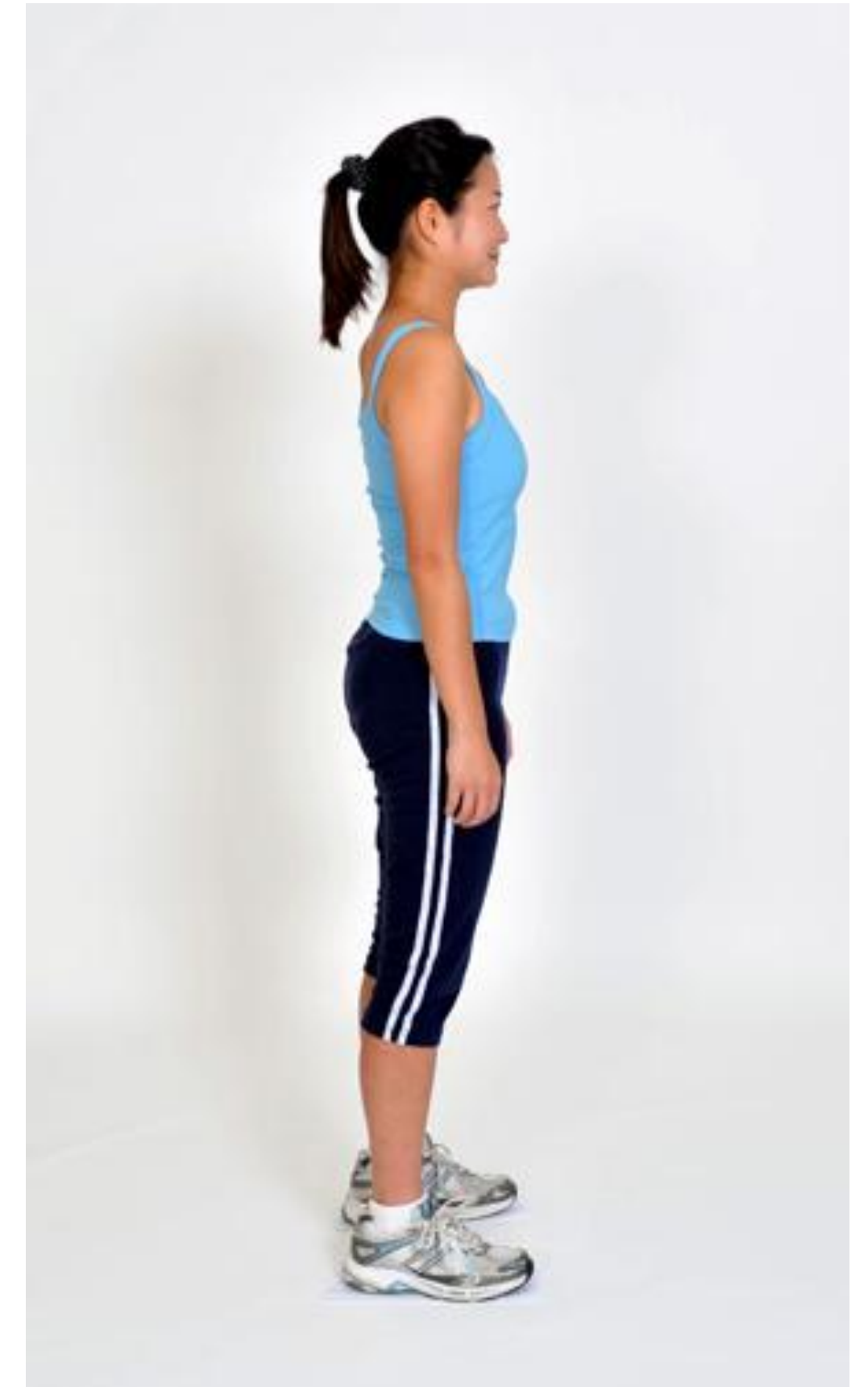
Alignment optimizes teamwork!



Breathing

- How alignment affects breathing
 - Slump / Bell rung down
 - Military / Bell rung up
- Gripping in upper abs
- Blow before you go
- Breath holding (when is it a helpful strategy & how?)

Alignment



Functional Movements

- Stand on one leg
- Squat on both legs
- Squat on one leg
- Hop on both legs
- Hop on one leg



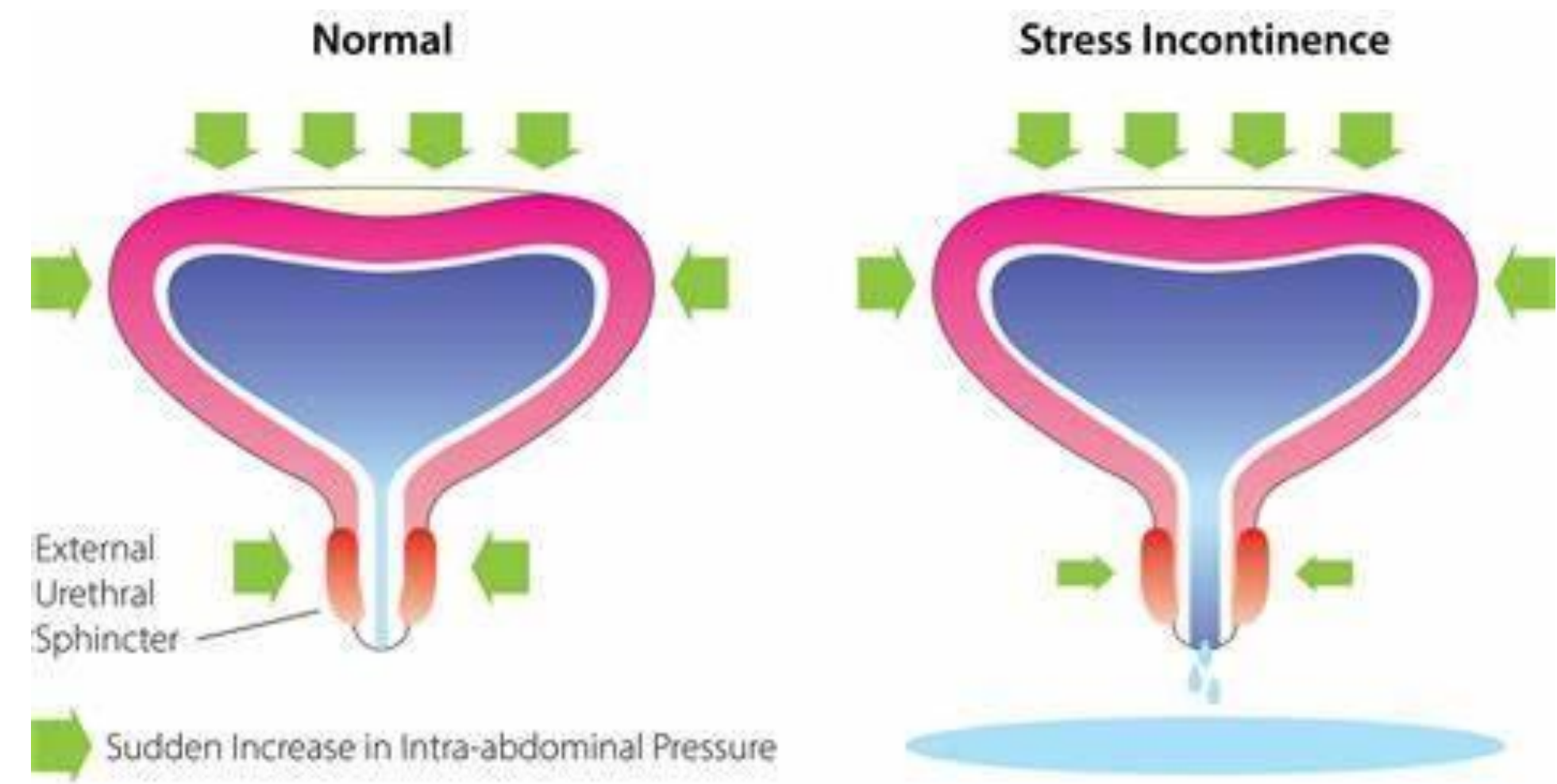
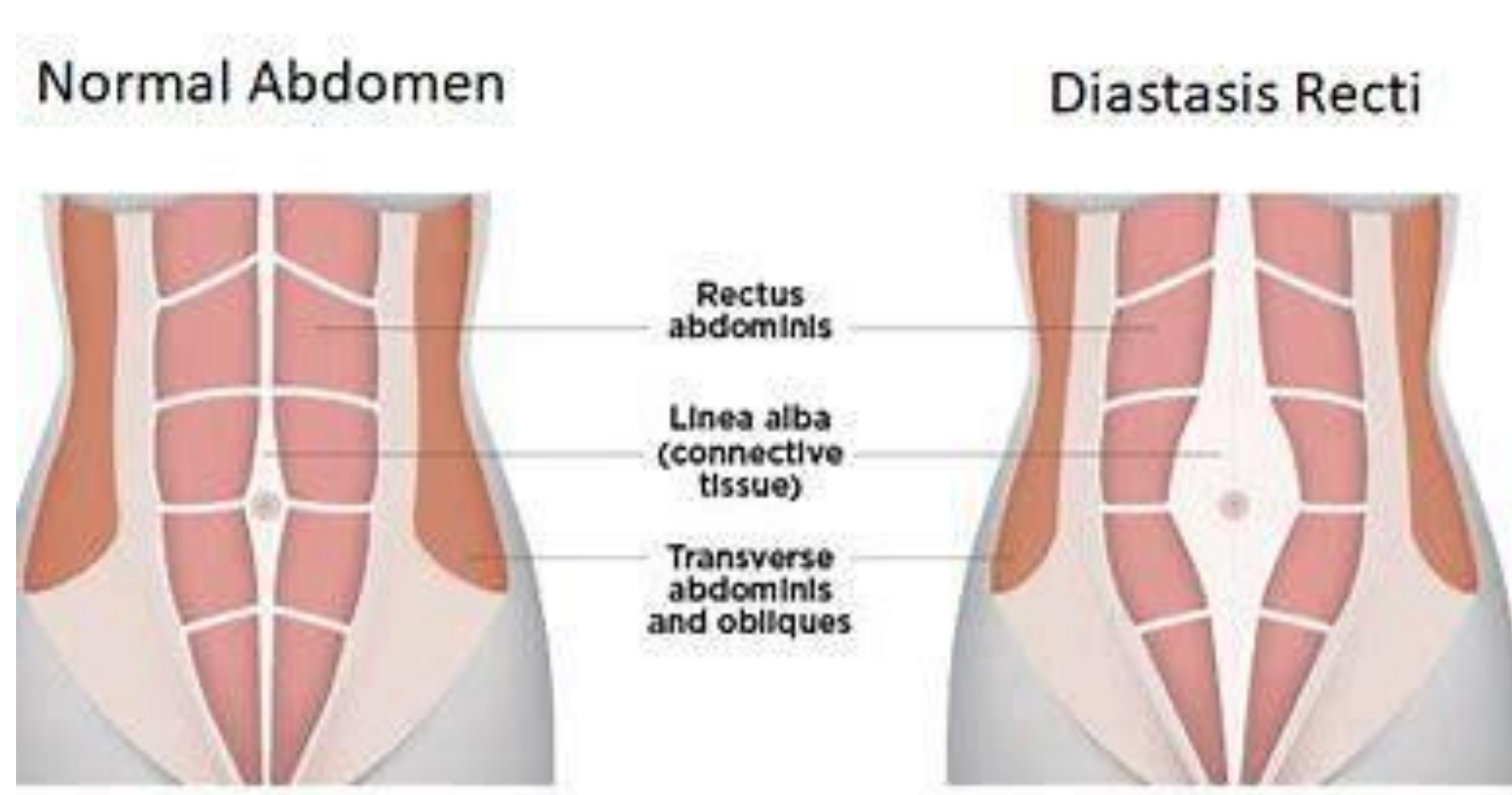
Alignment in Action

Blow Before You Go!



Common Pelvic Health Complaints

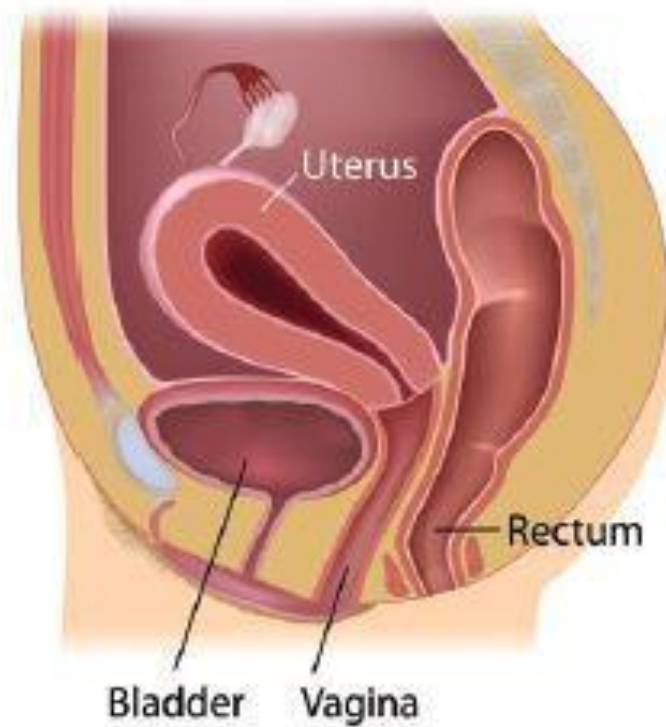
- Leaking (Stress Urinary Incontinence - SUI)
- “Mommy Tummy” (Diastasis Rectus Abdominus - DRA)



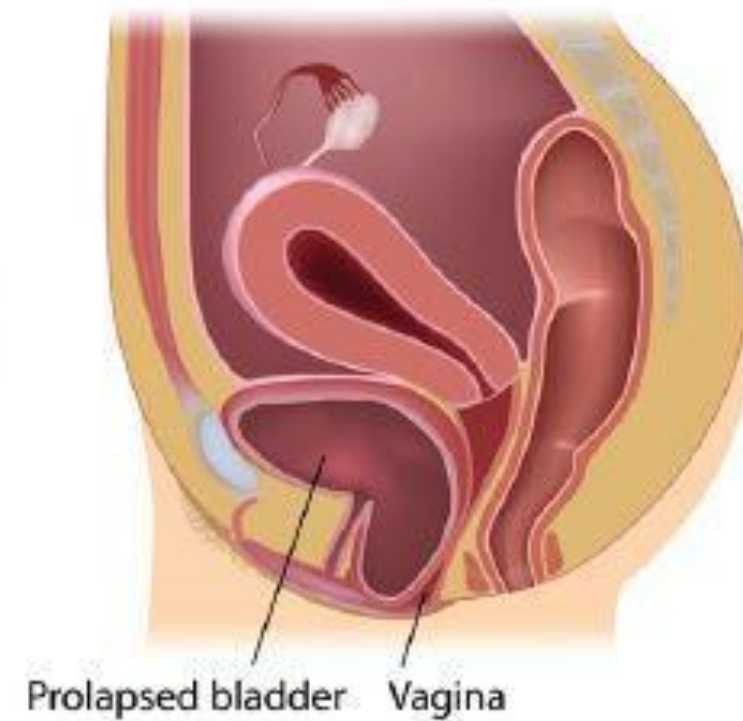
Common Pelvic Health Complaints

- Pelvic Organ Prolapse (POP)

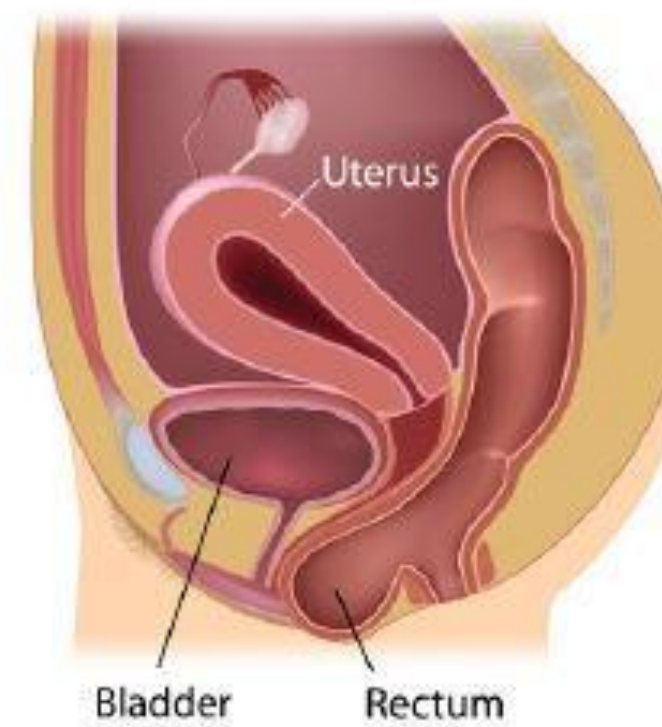
NORMAL ANATOMY



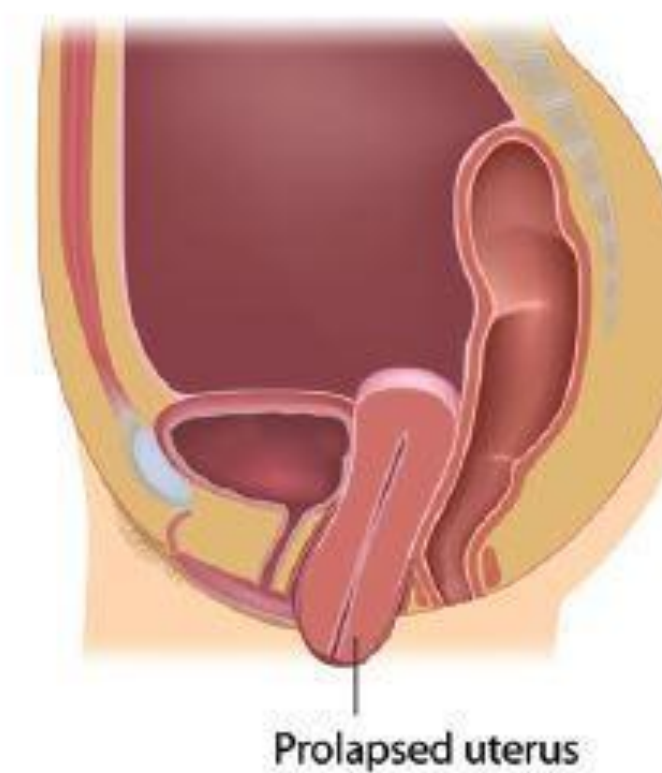
CYSTOCELE



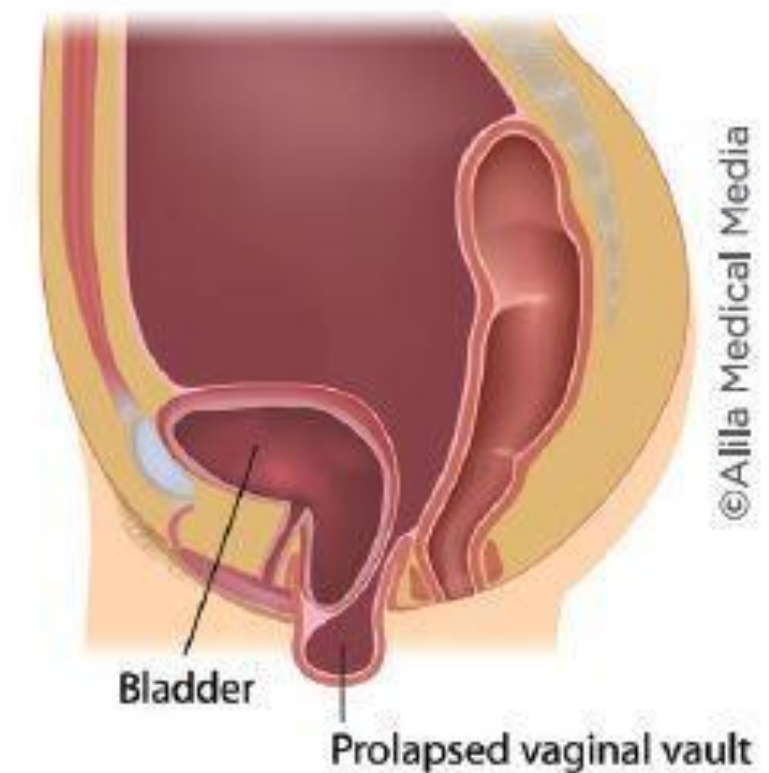
RECTOCELE



UTERINE PROLAPSE



VAGINAL VAULT



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Interesting Research

- Smith et al. (2007 & 2008)
 - Catch a 1kg bucket of water
 - Incontinent had $>$ PF & EO than continent
 - Continent = balanced, efficient, and task appropriate response
 - Second study on CoP displacement while balancing
- Booth et al. (2013)
 - Gait @ 1st urge, 2nd urge, post void
 - Dec walking speed and stride length @ 2nd urge to void
 - Continence = pelvic floor's priority, not as available to help w/ demands of stability



Pelvic Health Physio

- Alignment, breathing, functional movements (trampoline metaphor)
- Internal assessment of pelvic floor muscles
 - Decreased tension/tone => piston, ms slings
 - Increased tension/tone => downtraining & integrating above



Return to Running & Impact Post-Partum

- Goom et al. (2019)
 - Minimum 3-6 months post-partum & must pass criteria for good control
 - Recovery of PF muscles + associated connective tissue/nerves maximized at 4-6mo post-partum
 - Start small 1-2min easy jog mixed w/ walking
 - If symptoms - video analysis / physio

Impact

- Symptom threshold - current & goal
- GRFs
- Graded Exposure
- Progressions:
 - Side step, half jack, jumping jack (slow, fast, narrow, wide)
 - Plank step outs, plank jacks, progressing incline to vertical body position
 - Acceleration/deceleration/change of direction

Signs to Watch Out For

- Pain
- Leaking
- Heaviness or bulging in pelvic area
- Doming or tenting in abdomen

Key Takeaways

- Pelvic floor muscles should work with your diaphragm (ie breathing)
 - Inhale-open-relax & Exhale-close-gently lift up & in
- Think dynamic stability over stiff stability
- Think “Blow Before You Go” (unless lifting >80% RM)
- Think “ski jump” or neutral alignment to optimize above
- Practice!

References

Booth, J., Paul, L., Rafferty, D., & MacInnes, C. (2013). The relationship between urinary bladder control and gait in women. *Neurourology and urodynamics*, 32(1), 43-47.

Goom, T., Donnelly, G., & Brockwell, E. (2019). Returning to running postnatal - guidelines for medical, health and fitness professionals managing this population. *Absolute Physio*.

Smith, M. D., Coppieters, M. W., & Hodges, P. W. (2007). Postural response of the pelvic floor and abdominal muscles in women with and without incontinence. *Neurourology and urodynamics*, 26(3), 377-385.

Smith, M. D., Coppieters, M. W., & Hodges, P. W. (2008). Is balance different in women with and without stress urinary incontinence?. *Neurourology and Urodynamics: Official Journal of the International Continence Society*, 27(1), 71-78.

Wiebe, Julie. (n.d.). *Piston Science Part One: Diaphragm/Pelvic Floor Piston for Adult Populations Online Modules 1-7*.
<https://www.juliewiebept.com/product/piston-science-bundles/>

Wiebe, Julie. (n.d.). *Treating and Training the Female Runner (or any Female Athlete)*.
<https://www.juliewiebept.com/product/treating-and-training-the-female-runner-or-any-female-athlete/>

Thank you

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Questions??