

## Female Athletes: Ready for Impact and High Intensity?

### Part One (1.50 hr.)

**15 min:** Course overview Who, What, and How

**Who:** Introduction to the female athlete mindset, their history with pelvic health considerations, the continuum of demands fitness places on their systems and structure, and the relevance of their pelvic health considerations on the musculoskeletal and performance concerns.

**15 min:** Introduction to the system that provides both postural and continence control applied into the young, athletic, nulliparous (no children) population. A discussion of the high prevalence of incontinence, atypical in this population, demands new solutions.

**15 min: What:** Exploring the evidence for a new understanding of the system and teamwork that promotes continence. The role of the pelvic floor to contribute to postural control in an anticipatory fashion that prepares for movements in the extremities and the forces generated by the abdominals.

**15min:** Exploring the preliminary evidence for measuring the response of the pelvic floor in response to impact. Training for excursion of the pelvic floor is a critical component of attenuation of ground reaction forces during impact activities such as plyometrics and running.

**15 min:** Understanding the capacity of the pelvic floor to respond to and manage pressure provides practitioners with intervention strategies to modify HOW a client is doing an activity in order to lower the pressure demands on the system.

**15 min:** Understanding the anatomical bridge the pelvic floor creates between the trunk/pelvis and hip to facilitate proximal hip control for impact attenuation and valgus collapse often seen in running and jumping activities. Exploration of the literature that demonstrates gender differences in injury rates for females.

### Part Two (approx. 1 hr.)

**15 min:** Case introduction: Wendy's current presentation concerns including severe stress urinary incontinence, urgency, and symptoms suggestive of prolapse associated with exercise. Relevant past orthopedic and pelvic health history and evaluation highlights are provided.

**15 min:** Exploration of the structural contributions of Wendy's presentation related to both her history of scoliosis and her postpartum status. Movement analysis during squatting and single leg squats to explore neuromuscular stability strategies in patterns that mimic the demands of her fitness activities.

**15 min:** Treatment planning based on clinical reasoning from results of the evaluation. Intervention strategies to address reducing demand on the system by changing HOW she performs her activities while simultaneously training up the system that supports central stability and continence systems.

**15 min:** Case outcomes are presented with before and after treatment comparisons for functional and fitness movement patterns, running and double-unders. 6-month case epilogue is provided.