

Diaphragm/Pelvic Floor Piston for Adult Populations Online is an innovative approach to restoring foundational postural control for adult rehabilitation, recovery and return to fitness. The viewer is introduced to a dynamic team of muscles, inclusive of the relationship between the diaphragm and pelvic floor. That team works together to balance muscular forces and pressures creating an integrative model of dynamic central stability (Modules 1-4). Issues with the musculoskeletal system, movement patterns, pelvic health, and fitness can be addressed simultaneously when this central team is coordinated, then effectively linked to the rest of the postural system. When embedded into fitness programs, this inside-out strategy is reinforced and optimizes outcomes (Modules 5-7). Adapted for the online educational format, embedded video, case examples from recreational to high intensity athletes, independent lab opportunities and live course footage of a runner “volunteer” provide the viewer with ample opportunity to interact with the material and apply this approach in all areas of adult rehab and fitness (women’s health, orthopedics, sports medicine, fitness and neuro). The course is a bundled learning opportunity, with each of the 7 modules building on the previous presentation.

Module One: An in-depth discussion of the theory, evidence and concepts for the Piston Science approach, a neuromuscular and systems based path to creating central stability from the inside-out. The diaphragm is presented as the intersection of multiple systems, with breath mechanics as an accessible gateway for all populations to a new model of dynamic trunk

and pelvic control. In addition, dysfunction across the lifespan is explored from this new perspective. (run time = 2 hours).

Module Two: Optimized alignment promotes the availability of individual components of the anticipatory core (Diaphragm, Pelvic Floor, TA and Multifidus) and augments their teamwork. The position of the ribcage relative to the pelvis contributes to maximized breath mechanics, core component teamwork and a balance of multiple systems. An assessment paradigm for evaluation of alignment, including ribcage position, and corrective cueing is presented. Embedded video and independent lab opportunities provide the viewer with ample opportunity to interact with the material. (Run time approximately 2 hours)

Module Three: The diaphragm is the powerful link between the postural control, movement, sensory, balance, pressure, GI and continence systems. Optimized action of the diaphragm is the gateway to interacting simultaneously with all of these systems in our treatments and fitness. Identifying barriers to optimal breath, including alignment considerations as well as abdominal and pelvic floor over-recruitment, are included in an accessible assessment model of breath mechanics. Easy to apply intervention strategies are presented. Embedded video and independent lab opportunities provide the viewer with ample opportunity to interact with the material. (Run time approximately 2 hours)

Module Four: The existing inter-relationship between the components of the anticipatory core team provides professionals with new external strategies to integrate the pelvic floor into programs. Pelvic floor as a teammate rather than a spectator leads to simultaneous improvement of postural control, musculoskeletal, performance and pelvic health concerns such as incontinence and prolapse. Pelvic health providers interested in developing integrative programs and promoting a return to fitness will gain new tools. For those who are new to the pelvic floor, tips are included regarding external palpation (When and when not to? How?). Alternative indirect evaluation ideas are provided through observation, functional testing, and treatment options. Embedded video and independent lab opportunities provide the viewer with ample opportunity to interact with the material. (Run time approximately 2 hours)

Module Five: Ensuring the inside-out recruitment order of deep to superficial postural relationships is critical for the creation of a postural control strategy that is both stable and responsive to the demands of function. The anticipatory core system (Modules 1-4) provides a deep anchor prior to movement. Module 5 builds the relationship from this deep central foundation out to specific reactive core postural synergists. The Posterior Oblique Synergist (POS=Lats with contralateral glute max) is presented with links to anticipatory core elements, previous alignment interventions, and recorded live exercise demonstrations. Module 5 also includes a one-hour live Q and A. Independent lab activities are provided. (Run time

approximately 3 hours)

Modules 5-7 were recorded at a live course in Toronto, Ontario. The live recording provides the viewer with the opportunity to hear ongoing practitioner questions and see a volunteer/runner work through each step of the material over the course of the day.

Module Six: Continue your exploration of the postural synergists and inside-out recruitment from anticipatory to reactive core components in module 6. Introduction of the Lateral Synergist (LS=Glute Med/Min and contralateral Adductors) and Anterior Oblique Synergist (AOS= Obliques and contralateral Adductors) brings balance to the postural flexors and extensors to optimize trunk and pelvic control, promote efficient movement, load transfer, and improve fitness strategies. Links to anticipatory elements, previous alignment interventions, and live exercise demonstrations are presented. Independent lab activities are provided. (Run time approximately 2 hours)

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Module Seven: Complete your understanding of the postural synergists and inside-out recruitment from anticipatory to

reactive core components in Module 7. Rotation is necessary for efficient movement, ground force attenuation, load transfer, power generation, and is often our patients'/clients greatest vulnerability. Our final synergist, the Rotational Synergist (RS-Ipsilateral adductors and deep lateral rotators), completes the movement picture as a complement to the other synergists and as a pre-gait activity. Gait is the postural control and alignment systems in motion. Patients must walk before they can run. Gait assessment and intervention strategies are provided. Plyometrics are briefly addressed in order to prepare patients for the next step: impact loading. Independent lab activities are provided. (Run time approximately 2 hours)

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