**Thoracic Spine Treatment Protocol**

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| **STAGE** | **AIMs & OBJECTIVES** | **TREATMENT** | **HOME EXERCISE** | **EX’s PRESCRIPT or CLINICAL PILATES PROGRAM** | **ACTIVITY MODIFICATION** |
| 1  Weeks 0-2 | Identify the presence of a dysfunctional thorax: with or without local symptoms  Determine how the thorax is impacting the clinical presentation  Determine the thorax’s response to treatment: is it improving or not?  Determine the Thoracic Rings which have the greatest segmental control deficits (Controller of the Thorax) | Assessment guidelines followed as per condition. Pathway delivered session 3.  Manual therapy: Segmental release to the Thoracic rings at the insertion of hypertonic ES fascicles – massage, mobs, DN  Release vectors attaching to the Controller rings: Consider the 3D muscle attachments  Education: Important role of the thorax in total body function related to this presentation.  Introduce to mural (session 1-2) | 1. Improve mobility of the thoracic spine by decreasing superficial muscle system activity.   See PhysiTrack Program: “Thoracic Mobility 1”. Daily until symptoms are significantly reduced.   1. Find a new posture “cue” in standing to retrain current gripping patterns around back, chest and shoulder girdle.   Find a “cue” which improves a “cue-check” movement (BAL or Cx rotation) | Phase 1   1. Use the cue and cue check movement throughout the day to bring awareness and help “reset” better posture   Phase 2   1. Integrate cue into basic building block exercises in supine that are difficult for Thorax Drivers. See “Thoracic Control 1” PhysiTrack program | Advice: Compressed thorax’s are worse with   * Prolonged sitting * Repetitive twisting or side-bending * Overhead activities will more likely aggravate shoulders when thorax is stiff * Activities that create bracing or gripping of the abs and shoulder girdle (heavy pushing, planks etc)   Ease   * Mobility exercises & Thoracic releases * Walking * Heat &Massage |
|  | **CRITERIA TO PROGRESS** | * **Reduced pain & improved AROM &** * **Improved inter-regional assessment** * **Able to perform cue and successfully improve a cue-check movement** * **Able to perform PhysiTrack Control 1 exercise program effectively 10-15 reps, 3 sets** | | | |

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| 2  Weeks 2-4 | Confirm the Thoracic Controller  Confirm the relationship between the thorax and other symptomatic or dysfunctional areas  (Driver Profile)  Determine strength and control deficits of the trunk and pelvis that may be contributing to poor patterning around the thorax (contributing factors for thoracic dysfunction). i.e.   * Abdominal Wall assessment * Pelvis & hip muscle length & strength * Shoulder girdle length/strength * Spinal flexibility   Determine if the Thorax over BOS is changing (could indicate secondary foot or shoulder issues) | Manual therapy is now directed more specifically at the Controller level of the Thorax:   * Massage, jt mobs & DN as above * Spinal, shoulder girdle & neck muscle releases related to “what is overactive and not allowing good control?”   Focus on “stack and breathe” releases:   1. Static 2. Dynamic   Dynamic = Controllers are supported & stacked by the therapist throughout the target exercise  Taping for ring control | Empower the client by helping them to use self checks to determine the “state” of their thorax:   1. Self check movements (based on the objective assessment and meaningful baseline tests) 2. When the “cue stops working”   Self treatment used when self-check deteriorates  Self treatment includes:   1. Mobility program 2. 10 reps of Phase 1 exercise program 3. Anything the client identifies that improves their self check | Quickstart  Home Pilates based on PhysiYoga Matwork repertoire  PYMVS or other functional testing (i.e. Running Assessment) to determine other regions of dysfunction that could be contributing  Integrate cue and core-activation into functional movements: Core activation with knee float, bent knee fallouts, glute bridges. | Graduated return to normal activities and duties  Empowering return to activites, work, sport by use of self check and self treatment |
| **CRITERIA TO**  **PROGRESS** | | * **Pain reduced to within 10% of pre-injury levels** * **Thoracic rotation 65 – 75%+ of expected average range** * **10x Triceps @3-4kg (3 sets) w control** * **Identification of goals and creation of hypothesis of how the level of thoracic function may be barrier to achieving goals** | | | |

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| 4  Weeks 4-6 | Identify more complex thorax presentations (i.e. co-drivers) and treat accordingly.  To do this, determine regions that are not improving or worsening in response to treatment. Clues:   * Thorax over BOS * Inter-regional relationships * Symptom changes * Slow to progress through phases   Patterns include   * Thoracic Co-Drivers * Co-Drivers; Neck-rings, rings-pelvis, rings-feet | Design treatment based on the Primary Driver (or co-Driver) and the relationship it has with other regions.  To diagnose further:   1. Use corrections 2. Use DDC   Treatment will be primarily stack and breathe and designed around the problematic:   1. Reaching the muscles to release 2. Positions required for the problematic tasks 3. Positions that cause greatest agg symptoms | Can introduce self stack & breathe releases  Increase vertical loading capacity. Using cue and not gripping scap mm (see PhysiTrack exercise program “Thoracic Control 2 – Advanced”.  Involves finding neutral spine, neutral scap and then moving into a vertical loading position   * All fours (scap slides) * Down dog | Quickstart 🡪 studio classes or independents  Or direct to studio classes | Graduated full return to occupation and sport  Movement variability screen  Other sport-specific screen  Functional exercise program related to sport and occupation |
| **CRITERIA TO**  **PROGRESS** | | * **Full Range of motion (AROM spinal)** * **Full return to ADL’s and sport** * **Good core-muscle recruitment** * **Want’s “tune up” 🡪 massage** | | | |

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