Case Study and Exercise Focus Worksheet

Exercise name:
Long Spine

Technique focus:
Safe initiation and positioning of inverted position. Ability to activate upper back (lats) and maintain a balanced connection between front and back body as the spine is suspended in space.

Movement & Pilates principles:

- Spinal articulation.
- Lumbo pelvic stability.
- Scapular stability.
- Core strength.
- Back strength.
- Control.
- Precision.
- Flow.

Competency pre-requisites:

- Ability to activate core and stabilize neutral spine in a suspended, unsupported position.
- Ability to activate upper back and arms without excess neck and upper shoulder tension.
- Must be able to tolerate inversion.
- Effective activation of glutes, legs and hamstrings in relationship to lumbar stability

Lower ladder exercises:

- Kneeling abdominals front and back
- Pulling straps
- Feet in straps
- Short spine
- High leg springs
    - Levitation
    - Airplane
    - Short spine
- Roll over
- Overhead

- Long stretch
- Reserve plank
- Control back

Upper ladder exercises:

- High leg springs: dolphin
- Snake
- Twist
- Walk over – Trap Table
- Walk over to arabesque - Reformer
- Boomerang
- Control balance

Verbal cues:

- Brings the legs no higher than the lower ribs (nipple line) in the inversion.
- Strongly anchor the upper arms and keep the neck at ease
- Initiate the roll down from the spine, then press out with the legs. Continue to roll down spine, legs, spine, legs until you reach the point just before you lose stability.

Manual cues:

- Both hands on the heels to help guide the down action.
- A light touch to the front of the shoulders to help the student remember to soften (no verbal cue necessary).
- Note: This exercise is really best if you stay out of the way. There is an assumption that the student has the pre-requisite competencies so you won't need to do much. Plus it can be very distracting to have your hands or arms in the way of the student's movement.

Case Study - January 2015

Student:
Female

Age:
41

Activity level:
Moderate

Activities:
Pilates 1x week 6 months. Regular bike riding and walking

Injury/symptoms/Pain level:

She had a lot of fear and hesitation and is relieved to find strength and confidence in her abdominals.

Broken calcaneus on November 2nd, no surgery but a boot and crutches for two months.

Her left leg is quite atrophied, has pain in the top of her foot when she plantar flexes, tightness in the heel and arch when she dorsiflexes, pain in her hip on that side.

Her shoulders were always in her ears, but crutches have actually created some awareness in the shoulder girdle.

Pain potential:
N/A

Goals:

- Reduce scar tissue, improve ROM in anterior abdomen;
- Increase core strength;
- Recover ROM and strength around ankle, knee, and hip.
- Reduce pain

THINGS TO THINK ABOUT:

Primary movement goals:

- Remobilize the foot and ankle
- Release any shoulder tension and reorganize scapula
- Reorganize ankle, knee, hip recruitment
- Reintegrate lower limbs with core
- Reintegrate core to overall posture

What to release and stretch/open:

- Abdominals
- Heel/calcaneal tendon (Achilles tendon)
- Plantar fascia
- Outer and anterior left hip
- Any compensation on right leg/ankle/hip
- Upper traps, lats, serratus

What to strengthen:

- Deep core (TA and multifidi)
- Erector spinae & abdominal girdle
- Calf, hamstrings and glutes on left side
- Middle back

Exercise suggestions:

- Fascial release in foot and ankle (rolling with the ball)
- Hamstring & psoas release and strengthening
- Theraband exercises for foot and ankle
- Plantar fasciitis strengthening: toe scrunch with wash cloth
- Feet in straps (straps on thigh potentially)
- Thoracic opening:
  - Swan on the mat or chair
  - Overhead press on long box facing footbar
- Posterior/lateral breathing
- Quadruped arch and curl
- Release over the big ball with arm circles
- Hamstring curls on reformer
- Squats against the wall with the ball
- Scapular mobilizing and stabilizing with lightly loaded push-through bar
- Scapular mobilization on chair – split peddle