



Case Study - January 2016

Student:

Female

Age:

23

Activity level:

Has been doing Pilates 1x week for 6 months

Overall condition:

Thin build with a protruding belly, lordotic and kyphotic.
Hypermobility.

Injury/symptoms/pain level:

Difficulty finding neutral at all, rarely ever able to maintain without pain.
Significant pain when in table top at 90 degree post.

Pain potential:

Previous teacher insisted on working in neutral spine, causing additional pain.
Current teacher working her in an imprinted spine with some success, reduction in pain.

Goals:

- Reduce kyphosis and lordosis
- Establish and strengthen a more healthy default neutral
- Overall strength
- Greater stability overall
- Greater intrinsic strength in low abdominals and deep low back muscles

THINGS TO THINK ABOUT:

Primary movement goals:

1. Release, open, and prime the body for movement so the soft tissue can allow for boney re-alignment and the student can appropriately build strength to maintain the boney alignment without props (over time – see #3).
2. Align the bones before moving as often as possible.
3. **Encourage, teach and progress the student to a point of not needing props as much or at all over time. **This ends up being very relevant for this case study. Listen to the January 2016 Group Call for the low down.***

4. Always bring the body to center as much as possible –
 - Do this by awakening body-awareness in the student to promote self-correction.
 - Do this by helping the student to more fully understand their challenge areas/areas of focus and what corrective actions and/or homework they can practice to do this in daily life.
5. As much as possible treat the body three-dimensionally:
 - 3-D cueing
 - Integrative/whole-body movement
 - If looking to improve flexion or extension consider priming the body with side-bending and rotation – can be and MUST BE subtle movements much of the time so as not to exacerbate the scoliosis.

What to release and stretch/open:

- Open chest, shoulders, thoracic
- Thoracic mobilization
- Hip flexors and quads

What to strengthen:

- Deep abdominals
- Deep low back
- Three-dimensional core (TVA, psoas, iliacus, obliques, QL,)

Programming ides:

- Work in positions where neutral is more attainable:
 - Standing, sitting, kneeling, quadruped
- Limit supine loaded exercises:
 - Footwork
 - Overhead arms (where legs have to be in table top)
 - Feet in straps
- OR support all loaded supine exercises with a wedge, elevating the tail and sacrum, putting the lumbar spine in a passive imprint where the lower abs are easily accessible.
- Move in a variety of directions not just the sagittal plane:
 - Do balance of work with side bending and rotation
- Teach how to activate deep low extensors before teaching extension
- Use more internal cueing and direction for finding and supporting neutral:
 - Finding a place where the pelvis can be positioned where back and belly can activate
 - Find a balance of weight between sacrum and top of pelvis
- Work toward a more balanced neutral over time.
 - Test and retest using a specific exercise or group of movements.