Human Asymmetry

The Sagittal Plane, Right-Side Dominance & Scoliosis

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Current interventions lack understanding of the functional baseline they are trying to restore

- Scolio-specific rehab, bracing, and surgery overlook fundamental tri-planar human asymmetry
- Techniques to identify scoliosis and predictive models of progression miss biomechanical indicators of loss of balanced tri-planar asymmetry, eg: sagittal plane dysfunction and R versus L unequal competence

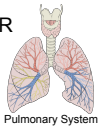
POSTURAL RESTORATION® provides a 3D ASYMMETRICAL FRAMEWORK for the assessment and treatment of scoliosis

I. Innate Human Physiology is Asymmetrical:

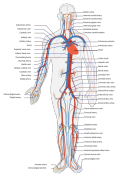
This manifests as

- Thicker muscle attachment on R
- Heavier organ distribution on R
- Greater respiratory efficiency on R
- Lateralization of expressive brain function manifests on R

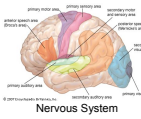
Diaphragm & muscle attachment



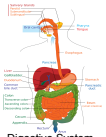
Pulmonary System



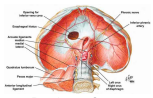
Circulatory System



Nervous System



Digestive System



Respiratory System

II. Right-Side Dominance is a result of Physiological Asymmetry:

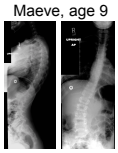
Asymmetry Facilitates Movement

- PR® differentiates a R dominant pattern, equivalent to R stance phase of gait, from a L non-dominant pattern, which is equivalent to swing phase
- R dominant muscle chain activity is typically stronger and more efficient than the L non-dominant chain
- R stance muscle chain activity is the most common non-pathological default position
- The most common scoliosis curvature, R-TS, L-LS, is a pathological progression of a R dominant pattern

III. Tri-Planar Dysfunction Begins with Sagittal Plane Dysfunction:

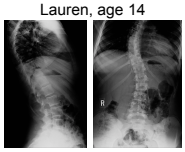
Sagittal plane dysfunction is typically overlooked, although Sagittal Cobb angles are often more exaggerated than Frontal angles:

Maeve, age 9



L: 49° TL: 27°
K: 68°

Lauren, age 14

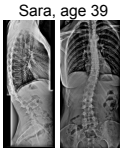


L: 48° TS: 48°
TL: 29°

Mike, age 25

L: 55° TS: 33°
TL: 41°

Sara, age 39



L: 68° TS: 20°
TL: 23°

Betsy, age 63

L: 56° TL: 67°
LS: 34°

POSTURAL RESTORATION® provides OBJECTIVE TESTS and EXERCISE PROGRESSIONS

I. Objective Tests: Assess musculoskeletal status, determine curve type, inform treatment, and reevaluate intervention success

- Sagittal plane position of hemi-pelvis and hemi-ribcage
- Transverse plane spinal orientation and ligamentous integrity
- Lateral abdominal integration for Frontal plane functional strength
- Efficiency of respiratory mechanics

II. Exercise Progressions:

- Recruit Sagittal, add Frontal, then Transverse plane activity
- Emphasize positioning for corrective diaphragmatic breathing
- Stabilize and strengthen corrective muscle chain activity
- Restore normal gait mechanics
- Complement the Schroth method as taught by BSPTS

IIa. Examples of Non-Patho / 3 Curve Exercise Progression (R TS)

90/90 Hemibridge:
Achieve Sagittal plane pelvic neutrality by activating L hamstring

L Sidelying L Foot to Ceiling with resisted R Glute Max & R Apical Expansion:
Maintain neutrality, balance and strengthen the Frontal plane hip muscles, expand R chest and L TS concavity

L Sidelying Trunk Lift:
Stabilize Sagittal and Frontal plane by strengthening L abdominals, R low trap minimizes R TS prominence

Standing L Posterior Mediastinum Expansion with Resisted R Diagonal Flexion:
Maintain corrections of the pelvis and ribcage in upright, decrease R TS prominence, expand L TS concavity

Two Point Gait with R Glute Max:
Retrain optimal R hip mechanics for R stance phase of gait while maintaining appropriate trunk position, avoid default into curve pattern

IIb. Examples of Patho / 4 Curve Exercise Progression (R TS, L LS)

90/90 Hemibridge with Balloon:
Achieve neutral pelvis, shorten and strengthen L lateral abs to minimize L anterior ribcage prominence, expand R chest

L Sidelying L flexed FA ADD R Lowered Extended FA ABD:
Minimize and stabilize left LS prominence, strengthen R hip stabilizers for stance

Right Sidelying Supported L FA IR with L Extended FA ABD:
Align body, engage bilateral lateral abdominals, stabilize L lateral hip for stance phase of gait prior to upright

Standing Supported L Knee Flexion, R Psoas and Illiacus with R trunk Rotation:
Normalize and strengthen L stance position, reduce L LS, R TS, and L anterior ribcage prominences, expand R chest and R TS with inhale

Two Point Gait with IO / TA:
Retrain optimal L hip mechanics for L stance phase of gait while maintaining appropriate trunk position, avoid default into curve pattern