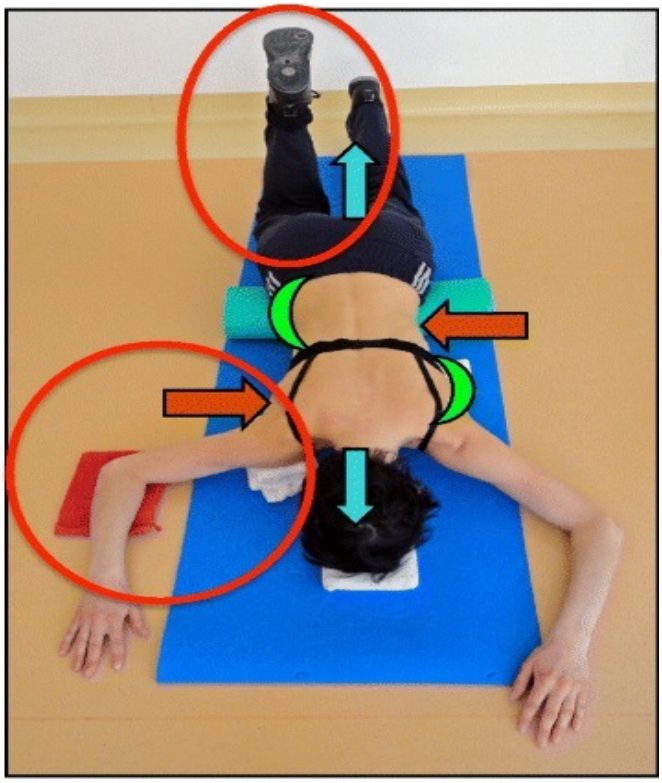
SCHROTH Scoliosis Intervention Ideas:
(Good RCT evidence with significant improvements showing effectiveness of Schroth Method with physiotherapist instruction [6,9,11,8,1])
remember you must be certified to treat with the Schroth Method
(in order of general progression)

- Elongation + Basic Tension (before each set of exercises)
- Five pelvic corrections
- Pelvic Counter Tilt
- Sidelying Muscle Cylinder: hip over bolster, heel stretching out, chair over head
- Shoulder Counter Traction (SCT) + rotational breathing [multiple reps]: Supine, Prone, Chest twister, Sitting between poles, Sitting on ball, Standing, Kneeling
- St. Andrew's Cross
- Sail
- Jelly Fish
- Big Bow
- Circles with Dowel
- Side Hang
- Kneeling Theraband Stretch
- Conscious Gait (heel in front, heel behind 2x, step)
- Schroth Walking (up on toes, front heel down, back knee bends, step)

FIVE PELVIC CORRECTIONS:
1. Weight on your heels / in the middle of your feet [neutral center of gravity]
2. Arched back (stick butt out) / rounded back (tuck butt in) [neutral in sagittal plane]
3. Weight on the left / right ; shift hips to the right / left [straight spine]
4. Hips not rotated forward or back [neutral in frontal plane]
5. Hips level to the ground [neutral in transverse plane]



https://openi.nlm.nih.gov/detailedresult.php?img=PMC4973373_13013_2016_76_Fig28_HTML&req=4

Outcome Measure Ideas: [2, 6, 8, 9, 11]
- **Oswestry Disability Index (ODI)[2]**
- **Numeric Pain Rating Scale (NPRS)**
- **Scoliometer Measurements**
- **Radiologic Measurements (Cobb Angles and Apical Vertebral Rotation)[11]**
- **SRS-22r Scoliosis Research Society**
- **Scoliosis Quality of Life Questionnaire[9]**
- Biering-Sorensen Back Endurance Test (BME)[9]
- Spinal Appearance Questionnaire (SAQ)[9]
- Adam's Forward Bend Test[8]
- Roland-Morris Low Back Pain and Disability Questionnaire (RDQ)[2]
- Low Back Pain Rating Scale (LBPRS)[2]
- Progressive Isoinertial Lifting Evaluation (PILE)[2]
- Quebec Back Pain Disability Scale (QBPDS)[2]

Scoliosis: [4, 13, 10, 3, 7, 6]
Three-dimensional deformation of the spine
Multi-factorial
Affects 3% of the population [13]
Prevalence higher among girls than boys [6]
Females have 10x greater risk of curve progression [10]
Functional (Postural) vs. Structural
Recommended use of exercise + bracing

Adolescent Idiopathic Scoliosis [4, 13, 10, 3, 7, 6]

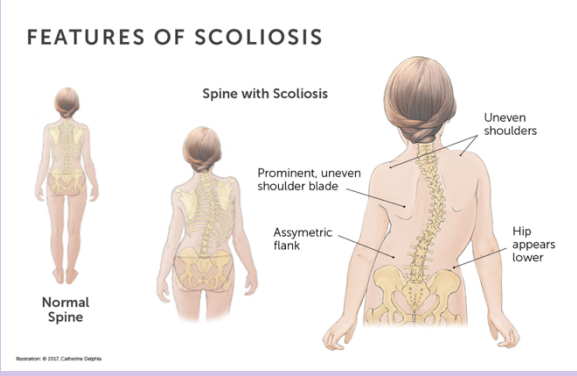
- Must have:
  - Cobb angle >10 degrees
  - age of onset >10 yo
  - no underlying etiology
- Observation, bracing, or surgery (based on Cobb angle and Risser score)
- >40 degree curve at the end of maturity is more likely to continue to progress

Adult Degenerative Scoliosis [4, 13, 10, 3, 7, 6]

- Cobb angle >10 degrees
- skeletally mature adult
- asymmetric degeneration and loading
- LBP or symptomatic lumbar stenosis is presenting symptom for most
- 90% chief complaint of pain [5]
- Surgery or conservative treatment (drugs and PT)

Scoliosis Screening Tools:

- Adam's Forward Bend Test
- Cobb Angles
- Risser Scores
- Scoliometer Measurements
- Observation



https://www.mdas.org.sg/resources-educators-researchers/neuromuscular-scoliosis-curved-spine

Physiotherapy Scoliosis Specific Exercises (PSSE): [12, 13, 7]
(Strong proof of effectiveness using RCT)

- Alone or in coordination with bracing/surgery
- Standard features: [14]
  - Auto Correction in 3D
  - Training in ADL's
  - Stabilizing in Corrected Posture
  - Patient Education/Safety
- Follow principles of conservative, evidence-based scoliosis management

(SOSORT Goals) [12]

- ✓ Stop or reduce curve progression
- ✓ Prevent and treat respiratory dysfunction
- ✓ Prevent and treat spinal pain
- ✓ Improve aesthetics via postural correction

Patient Case: 68 yo female, Lle HTri Scoliosis
Diagnosis:
-Degenerative scoliosis in adult patient
-Low back pain, non-specific
Onset of Symptoms: 1/1/1976 (26 yo)
Outcome Measures:
Scoliometer: Thoracic 2, Lumbar 4
ODI: 10 percent
Long-term Goals (12 weeks):
1. Patient able to tolerate driving two hours for excursions
2. Patient able to display home program that has been effective in preventing episodes
Treatment/Interventions:
Mechanical Diagnosis and Therapy repeated extensions for posterior derangement followed by Schroth Method Program Progression from Pelvic Tilt in Sidelying to → Shoulder Counter Traction series to → Schroth Walking and Conscious Gait
Week 10 Plan for next session:
Review and finalize HEP, exercise schedule

https://www.stanleywellnesscentre.com/practitioner-blogs/scoliosis-

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