



PROTOCOL FOR COX® TECHNIC FLEXION DISTRACTION AND DECOMPRESSION OF DEGENERATIVE LUMBAR SPINE DISC DISEASE (SPONDYLOSIS)

This document covers often asked questions about stenosis treatment and the timing of manual and automated adjustment procedures.

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This is the patient with low back and scleratogenous lower extremity pain - not radicular in nature.

Protocol II is used with the usual tolerance testing from the low thoracic spine to sacrum.

Possible approaches: Manual and Automated in Prone or Side-Lying positions

1. Preparatory care.
 - A. Ensure all locks are secure
 - B. Patient lies prone on instrument with the anterior superior iliac spines 2 inches from the caudal thoracic piece. This places the lumbar spine on the thoracic section for controlled distraction spine manipulation at specified levels.
2. **Distraction Manipulation** is applied in two modes: MANUAL or AUTOMATED.
 - A. **MANUAL:** Flexion distraction of the caudal section as the doctor hand contacts the spinous superior to the segment to be distracted and mobilized.
 - i. Tolerance testing is carried out from the most cephalward segment down to the last lumbar segment to be treated. (This testing is central, lateral, and with and without ankle restraints.) Ask for patient input as to any discomfort and reduce force to a non-painful level. As taught in didactic lecture, test at low force (2 lbs) increasing to 8 lbs incrementally by 2 lbs until 8 lbs is reached. Always continue treatment from the determined tolerance level. The force application is taught by visualizing the computer graph of forces, so the doctor learns the tissue tension of such forces. Some doctors retest their force levels in their practice by watching the force graph.
 - ii. Apply manual flexion distraction from the taut point, which is the point of interspinous process tautening and separation, at the chosen level. Patient tolerance at levels of 2, 4, 6 and 8 pounds of distraction force are delivered while asking if this causes any discomfort to the patient. If so, decrease to lesser force. Always contact the arch of the vertebra superior to the narrowed disc level, and move caudally under tolerance testing to adjacent levels of disc space degeneration.

- iii. Range of motion is applied with the lumbar spine segments under distraction. At this distracted point, lateral flexion, flexion, extension, rotation, and circumduction are performed at each lumbar level, and this may be continued into the thoracic spine. These motions are delivered with coupled motions under distraction.
- iv. The number of repetitions stop when increased range of motion with less pain are elicited.

B. AUTOMATED DISTRACTION (AD) = Long-Y Axis Distraction

- i. Tolerance testing is performed as described under manual flexion distraction. Automated distraction is started following patient tolerance and positive response to manual flexion distraction manipulation described above.
- ii. AD yields greater distraction force than manual distraction; therefore, use small increments of AD when starting and increase to patient tolerance
- iii. The number of repetitions stop when increased range of motion with less pain are elicited.
- iv. Doctor hand force can decrease or increase lordosis as deemed appropriate.
- v. Following long y axis distraction (AD), the doctor can lock the caudal segment in AD and at this distracted point, lateral flexion, flexion, extension, rotation, and circumduction are performed at each lumbar level, and this may be continued into the thoracic spine.
- vi. These ranges of motion can be delivered with coupled motions that combine distraction with each movement of lateral flexion, flexion, extension, rotation, and circumduction.
- vii. Appropriate electrical stimulation can be applied to trigger points before or after distraction manipulation. Ultrasound, acupuncture, gua sha, vibration, heat or cold, or other modalities as deemed needed are given.

3. **PATIENT POSITIONING OPTIONS:** Manual and automated long-y axis distraction can also be given in **Side-Lying Position** as shown in didactic lecture.