

Mckenize School & Clinical Applications

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Mechanical origin

1. The posture syndrome
2. The dysfunction syndrome
3. The derangement syndrome

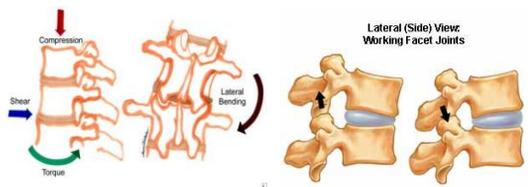
	posture syndrome	dysfunction syndrome	derangement syndrome
Mechanical deformation of soft tissues as a result of reason	Postural stress Place some soft tissues under prolonged stress	Adaptive shortening	Internal derangement
Age		Over thirty y/o (younger p't: had previous LBP or trauma, result in loss of function that has not been detected or treated)	1. Between twenty and fifty-five y/o (the derangement syndrome reduces gradually as degenerative processes develop and progress) 2. Men > women
character	Intermittent pain by particular posture or position	Intermittent pain is brought on as soon as shortened structures are stressed by end positioning or end movement 1. loss of movement in certain directions 2. cause pain to be produced before normal full range of movement 3. initial : stiff in the morning → loosening as the day progress. 4. feel better : active and moving than at rest (during regular and not excessive activity end range of movement is seldom required if so, only momentarily / during rest end positions are readily assumed and as soon as they are maintained they may prove painful.) 5. Vicious circle : Overstretching of contracted soft tissues causes minor traumata and increases pain. The patient rest for a few days the pain subsides, but further scarring and healing contractures will increasingly limit. Pain ceases almost immediately when the stress is released	1. Alteration of position of the fluid nucleus within the disc, and possible the surrounding annulus, causes a disturbance in the normal resting position of the two vertebrae. 2. constant pain or intermittent pain : depend on the size and location of the derangement. 3. partial loss of movement. 4. This causes the deformities in kyphosis and scoliosis in the acute stage.
The pain ceases	only 1. with a change of		

= Physical examination =

Physical examination

- Rationale
- Active movement test
- Functional assessment :
walking , standing

Disc movement



Disc movement

FIG. 14-15. The disc position (A) during and (B) in sitting posture, (C) in prone position, and (D) during active motion.

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Active movement test

Testing movement	(1) flexion in standing (2) extension in standing (3) side gliding in standing (4) flexion in lying (5) Extension in lying
Repeated movements	(1) flexion in standing compared with flexion in lying (2) extension in standing compared with extension in lying (3) Side-gliding in standing
Results	1. postural correction 2. extension principle 3. flexion principle

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Physical examination

- Lasegue test
- Well leg raising test

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= Treatment Procedure =

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Procedure and their effect

1. Stretching of shortened tissues
2. Alternation in the position of the fluid nucleus within 10~15 repetitions
3. No benefit for over treat

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Centralization vs. Peripheralization

← CENTRALIZATION →
→ PERIPHERALIZATION →

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The procedures and their effects

1. lying prone
2. lying prone in extension
3. extension in lying
4. extension in lying with belt fixation
5. sustained extension
6. extension in standing
7. extension mobilization
8. extension manipulation
9. rotation mobilization in extension
10. rotation manipulation in extension

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The procedures and their effects

- 11.sustained rotation/mobilization in flexion
- 12.rotation manipulation in flexion
- 13.flexion in lying
- 14.flexion in standing
- 15.flexion in step standing

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The procedures and their effects

16.correction of lateral shift

17.self-correction of lateral shift

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The procedures and their effects

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Derangement Syndrome

	No	Deviation
Pelvis	1	2
Knee	3	4
Ankle	5	6
Anterior	7	

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Derangement Syndrome

1.Derangement one

Central or symmetrical pain across L4/5.
Rarely buttock or thigh pain.
No deformity.

2.Derangement two

Central or symmetrical pain across L4/5.
With or without buttock and/or thigh pain.
With deformity of lumbar kyphosis.

3.Derangement three

Unilateral or asymmetrical pain across L4/5.
With or without buttock and/or thigh pain.
No deformity.

4.Derangement four

Unilateral or asymmetrical pain across L4/5.
With or without buttock and/or thigh pain.
With deformity of lumbar scoliosis.

5.Derangement five

Unilateral or asymmetrical pain across L4/5.
With or without buttock and/or thigh pain.
With leg pain extending below the knee.
No deformity.

6.Derangement six

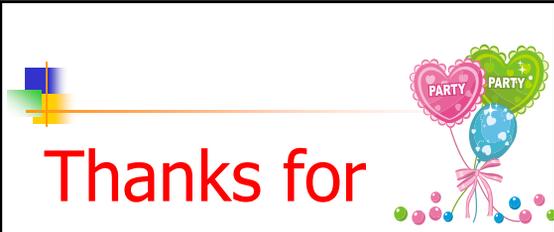
Unilateral or asymmetrical pain across L4/5.
With or without buttock and/or thigh pain.
With leg pain extending below the knee.
With deformity of sciatic scoliosis.

7.Derangement seven

Symmetrical or asymmetrical pain across L4/5.
With or without buttock and/or thigh pain.
With deformity accentuated lumbar lordosis.

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Thanks for
your attention~

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The slide features a decorative graphic in the top right corner consisting of two pink hearts with the word 'PARTY' inside, a blue balloon with white polka dots, and a string of colorful beads. A horizontal orange line with a small multi-colored square at its end extends from the left edge of the slide towards the graphic.