



Marcus Neuroscience Institute
BAPTIST HEALTH SOUTH FLORIDA

Conservative Management of Low Back Pain Physical Therapy Utilizing the McKenzie Method

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Disclosures

Richard H. Haglen, MSPT, faculty for this educational activity, have no relevant financial relationships with ineligible companies* to disclose, and have indicated that the presentations or discussions will not include off-label or unapproved product usage.



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Objectives

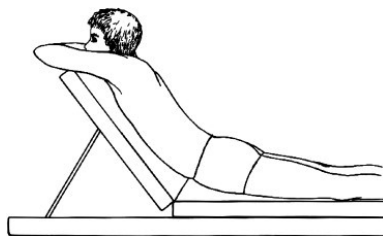
- Cardinal Features of the method
- Evaluation Process
- Exercise Prescription



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Robin McKenzie

- Physical Therapist from New Zealand in the 1950's
- The McKenzie Method is utilized in over 30 countries
 - **Over 1,700 therapists certified in the US**
- The Method started with "Mr. Smith"



McKenzie R, May S. The Lumbar Spine.: 2003.



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Cardinal Features

- Classification of subgroups
- Directional Preference and Centralization
- Utilizes a Progression of Force
- Patient Education



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Subgroups

Classify clinical presentations versus specific anatomical structures

- Derangement- the clinical presentation associated with a mechanical obstruction of a joint
 - **Presentation is variable.**
 - **Named for the location of mechanical obstruction.**
 - Posterior, Lateral, Posterolateral, Anterior
 - **Principle Treatment= movement in 1 direction, which brings lasting improvements in symptoms and/or mechanics.**
- Dysfunction- pain caused by load on an abnormal or impaired tissue
 - **Presentation is consistent**
 - **Principle Treatment= repeatedly stressing impaired tissue for the purpose of tissue remodeling.**



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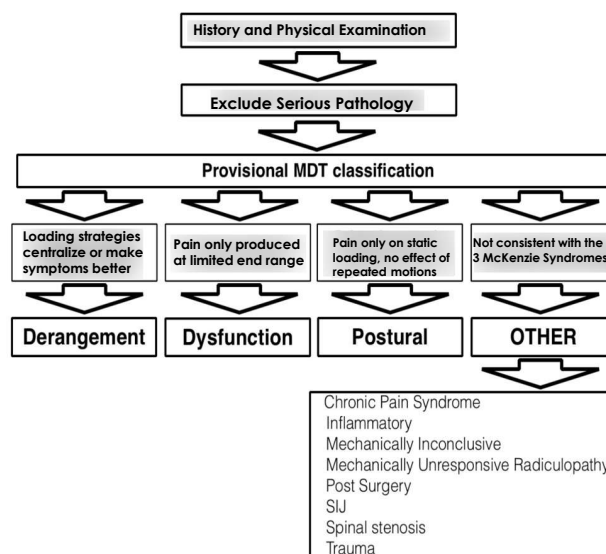
Subgroups

- Postural-intermittent pain brought on by static load on normal tissue
 - **Non-Pathological**
 - **Principle Treatment= education on postural habits**
- Other
 - **All conditions not appropriate for MDT**
 - Serious Pathology/Red flags, Chronic Pain Syndrome, Inflammatory Conditions, Structurally Compromised, and Trauma



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THE MCKENZIE METHOD® CLASSIFICATION ALGORITHM



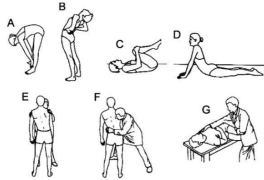
McKenzie R, May S. The Lumbar Spine.; 2003.¹

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Directional Preference & Centralization

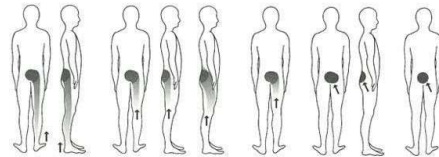
- **Directional Preference**

- The phenomenon where a specific direction of repeated movement and/or static positioning results in clinically significant improvements in symptoms and/or mechanics.



- **Centralization**

- The phenomenon by which distal pain originating from the spine is progressively abolished in a distal to proximal direction.
- As pain is centralized there may be an increase in central low back pain.



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Progression of Force

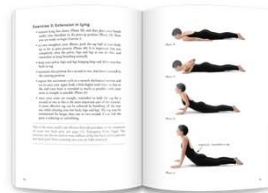
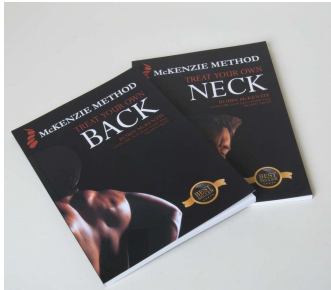
- Escalation of therapeutic loading strategies:
 - **Patient generated forces**
 - **Patient generated overpressure**
 - **Therapist overpressure**
 - **Mobilization/Manipulation**
- Minimum force that produces reduction of the derangement is the preferred loading strategy
- Safeguard to do no harm



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Patient Education

- The patient must understand their issue and the preferred solution
- Reduce dependency on the therapist and passive modalities



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Evaluation, History Intake

- Mechanism and duration of onset.
- Location of symptoms.
- Intensity of symptoms.
- Specific activities or positions that make it better or worse.
- Functional limitations.



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Evaluation, History Intake

- Considerations when obtaining a history
 - **Role of posture**
 - Duration and frequency of flexion
 - Study by Rohlman found on average of 4.9 hours/day in flexion, 24 minutes of extension²
 - Mechanical load with everyday activities
 - **Psychosocial factors**
 - Identify patients' perception of their symptoms
 - Reduce apprehension and fear by how we communicate
 - Promote patient empowerment
 - Provide 'normative permission'
 - Active listening
 - Summarize information to bridge any gaps

Antonius Rohlmann, Consmüller T, Dreischarf M, et al. Measurement of the number of lumbar spinal movements in the sagittal plane in a 24-hour period. European Spine Journal. 2014;23(11):2375-2384. doi:https://doi.org/10.1007/s00586-014-3588-0



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Examination, Postural Assessment

- Lateral Shift, Relevant or Non-Relevant
 1. **Unmistakable Shift**
 2. **Onset of shift = Onset of symptoms**
 3. **Unable to actively correct the shift**
 4. **If able to correct, unable to maintain**
- Named for the direction of shoulders



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Examination, Objective Measure

- ROM assessment
 - **Loss of motion**
 - **Aberrant motion**
 - **Symptoms during motion**
- Strength assessment
 - **Myotomes**
- Neurological assessment
 - **Neural Tension Tests**



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Examination, Mechanical Assessment

Classifying Directional Preference

- Start in the direction identified in the history
 - activities/positions that make symptoms better
- Educate the patient on the process
 - Acknowledge pain during the motion is a normal response
 - Create confidence in the treatment, improve patient participation in treatment
- Capture a baseline to assess response during and after
 - Symptom location/intensity, ROM, strength

DURING	AFTER
Produced/Increased	Better/Worse
Abolished/Decreased	No Better/No Worse
Centralizing/Peripheralizing	Centralized/Peripheralized
No Effect	No Effect

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Exercise Prescription

- First visit educate on home exercise program (HEP) with preliminary Directional Preference
 - **May take 3-5 visits to confirm a DP**
- Key points to remember with HEP:
 - **Pain during the motion is OK**
 - **Concept of centralization- increased back pain is GOOD**
 - **HEP Frequency is KEY**
 - **Activity modification for success**



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Take Home Message

- The McKenzie method utilizes subgroups based on presentation
 - **prescription of therapeutic loading is specific to each subgroup**
- Emphasis on patient education to promote an active role in treatment, reduce dependency on therapist and passive treatment
- Frequency of spinal flexion > extension
 - **Most require extension for therapeutic loading.**

McKenzie R., May S., The Lumbar Spine., 2003.



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References

1. McKenzie R, May S. *The Lumbar Spine.*; 2003.
2. Antonius Rohlmann, Consmüller T, Dreischarf M, et al. Measurement of the number of lumbar spinal movements in the sagittal plane in a 24-hour period. *European Spine Journal.* 2014;23(11):2375-2384. doi:<https://doi.org/10.1007/s00586-014-3588-0>
3. Namnaqani F, Mashabi A, Yaseen K, Alsheri M. The effectiveness of McKenzie method compared to manual therapy for treating chronic low pain: a systematic review. *Journal of Musculoskeletal and Neuronal Interactions.* 2019;19(4):492-499. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6944795/>



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Thank You.



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