

Physical Therapy

Conservative Approach to
Management of the Spine

What causes back pain?

- ◆ Important to identify the source of the pain
 - Get a complete history from the patient
 - What is the pathology?
 - How does it behave?
 - What makes it better?
 - What makes it worse?
 - How has this pain been managed in the past?

What else contributes to back pain?

- ◆ Poor posture
- ◆ Faulty body mechanics
- ◆ Stressful living and working habits
- ◆ Loss of strength and flexibility
- ◆ General decline of physical fitness

Physical Therapy

- ◆ Guided by directional preference of pain
- ◆ Guided by the previous functional level of activity of the patient
- ◆ Guided by MD prescription and level of previous intervention

NATURAL HISTORY OF ACUTE LOW BACK PAIN

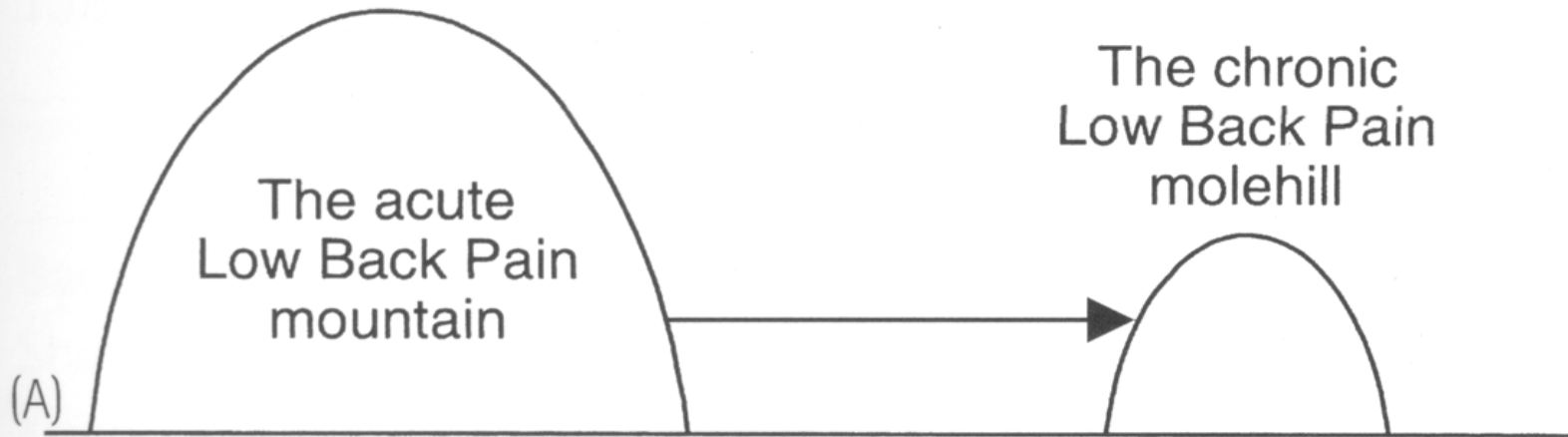
- ◆ 44% ARE BETTER IN ONE WEEK
- ◆ 86% ARE BETTER IN ONE MONTH
- ◆ 92% ARE BETTER IN 2 MONTHS

STATISTICS ON LOW BACK PAIN

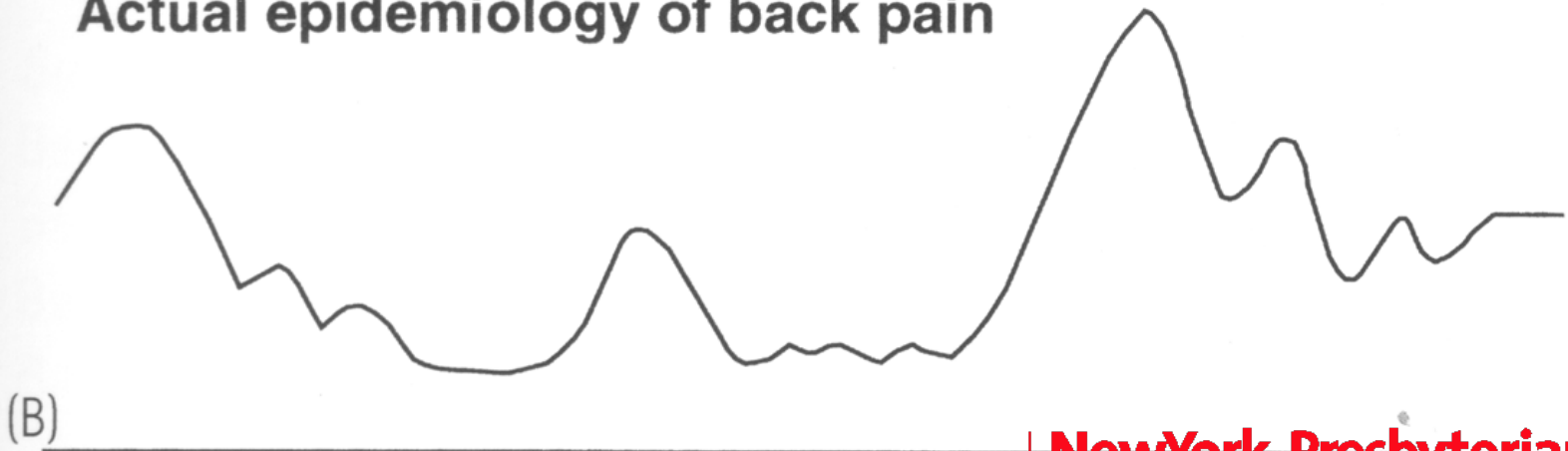
- ◆ 90% OF LOW BACK PAIN IS RECURRENT
- ◆ 35% OF THOSE WITH RECURRENT LOW BACK PAIN GO ON TO DEVELOP SCIATICA

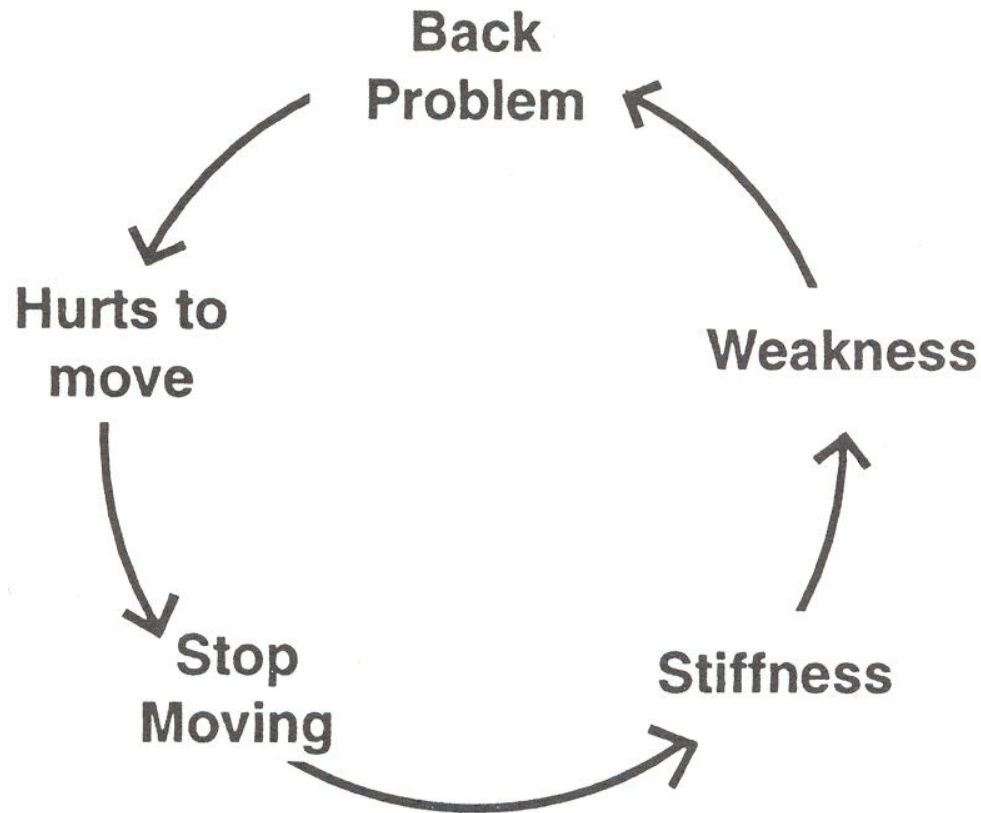
The reality.....

Traditional clinical concept



Actual epidemiology of back pain





People with back problems often seem to be faced with this vicious cycle.

OUR GOAL

- ◆ **Correlate complaints and physical findings**
- ◆ **Determine an accurate diagnosis**
- ◆ **Select appropriate treatment**
- ◆ **Return to normal function**

Physical Therapy

- ◆ Works on pain from the perspective of function!!!
- ◆ Should focus on setting reasonable and attainable goals that emphasize function
- ◆ Intervenes on the levels of movement and modalities, as well as education of the patient

McKenzie Technique

- ◆ Generally perceived as extension exercises for the treatment of HNP
- ◆ Should be noted: this approach is *NOT* exclusive to extension
- ◆ Utilizes a variety of different exercises, including flexion, extension, and lateral movements for a variety of spinal conditions
- ◆ PRIMARY emphasis on patient education

Evaluation

- ◆ Subjective evaluation determines
 - Mode of onset of symptoms
 - Location and duration of symptoms
 - Non-mechanical symptoms and red flags
 - Positional preference
- ◆ Objective evaluation
 - Repeated movement testing

Sub-groups

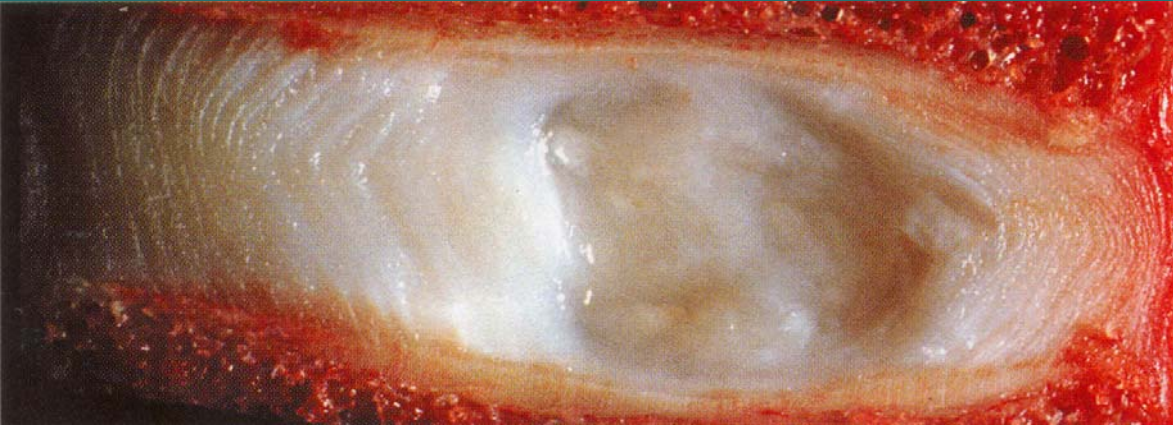
- ◆ Derangement
 - Most typically unilateral symptoms
- ◆ Dysfunction
 - Time dependent features
- ◆ Postural
- ◆ Non-mechanical

Lumbar Spine AROM

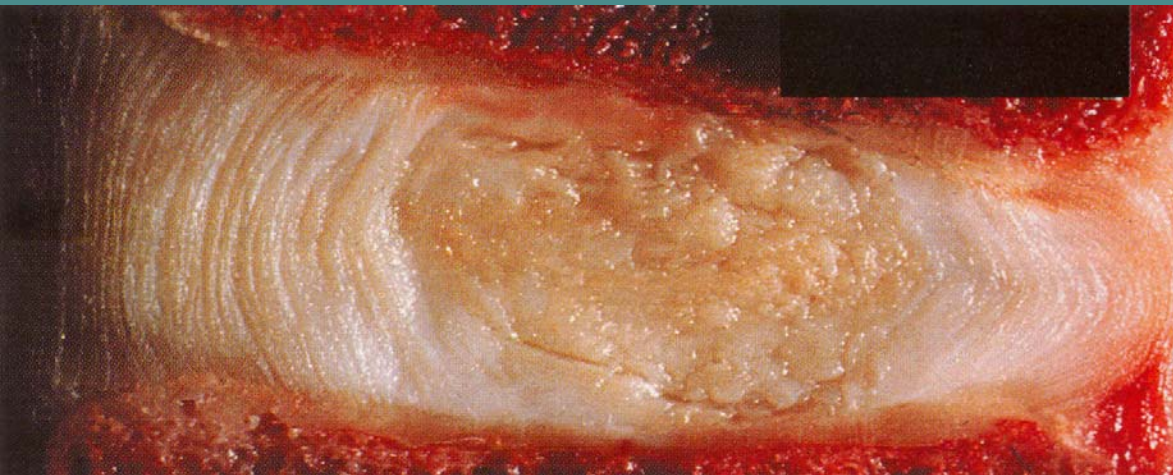
- ◆ To reproduce symptoms
- ◆ To establish direction of preference
- ◆ To assess limitations in ROM
 - Kopp, Clinical Orthopedics, 1986

THE STRUCTURE

Intervertebral Disc

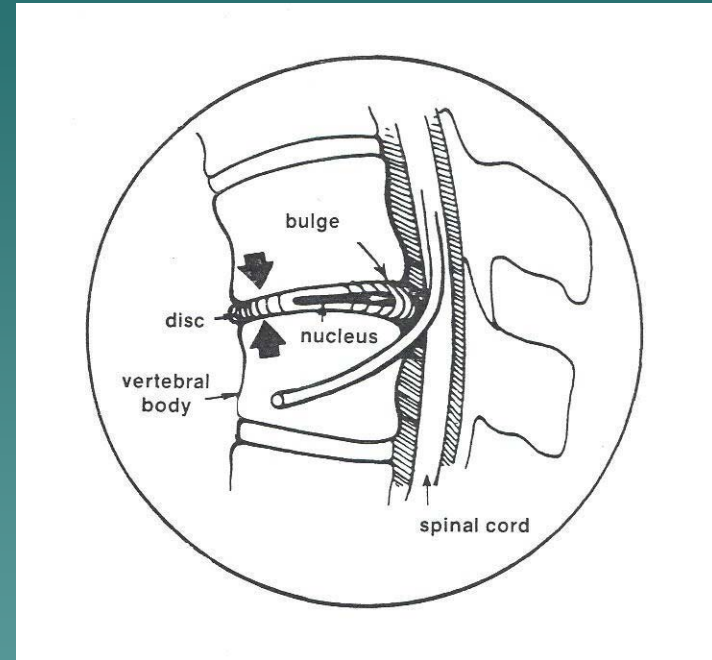
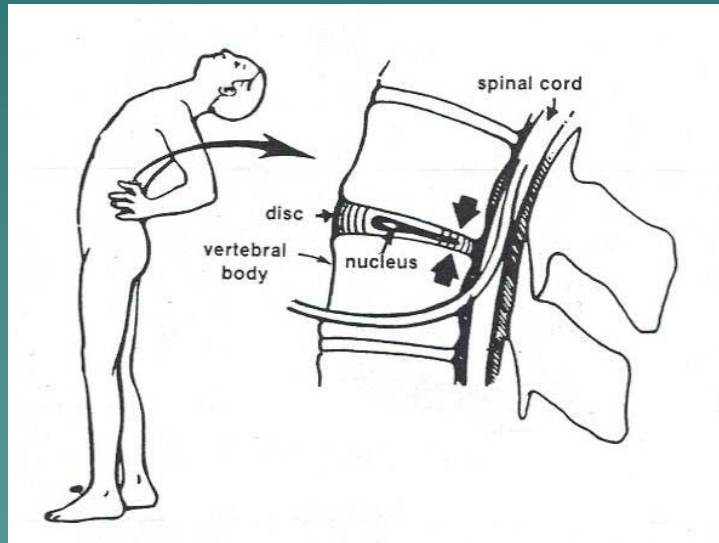


Typical of patient 15-40 years old



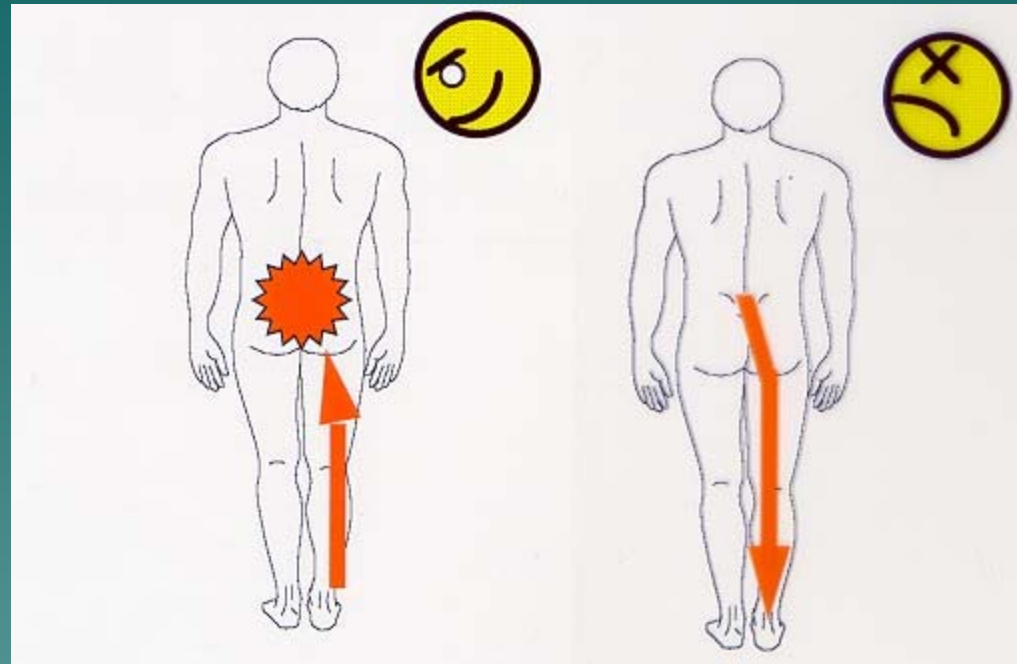
Typical of patient 35-70 years old

LUMBAR DISC IN FLEXION AND EXTENSION



Principles of continued treatment

- ◆ Centralization
- ◆ Peripheralization
- ◆ No change in location of symptoms
- ◆ Donelson, Spine 22 (10), 1997



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Prevention and treatment

- ◆ Understanding the underlying pathology is paramount!!!
 - Rest vs. exercise
 - Implementation of directional preference
 - Ice vs. heat
 - Need for guided therapy vs. independent management vs. MD management

Diagnostic Imaging

- ◆ When are these tests necessary?
- ◆ Over utilization of tests
- ◆ MRI vs CT scan vs Plain film
 - Boos, Spine 1995, Vol 20 (2)
 - Jensen, NEJ Med 1994, July



Aquatic Therapy



Thank you!!!

- ◆ Outpatient Physical Therapy
Department

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