

Clinical Reasoning in Spine Pain[®]: The CRISP[®] Protocol

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**Primary Spine
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Clinical Reasoning
In
Spine Pain VOLUME I

**PRIMARY MANAGEMENT OF
LOW BACK DISORDERS
USING THE CRISP PROTOCOLS**

A Practical Evidence-Based Guide

Donald R. Murphy

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Clinical Reasoning
In
Spine Pain VOLUME II

**PRIMARY MANAGEMENT OF
CERVICAL DISORDERS
USING THE CRISP PROTOCOLS**

And Case Studies in Primary Spine Care

Donald R Murphy

The Challenge of Spinal Dx

1. Spinal pain is multifactorial
2. Factors relate to various dimensions (somatic, neurophysiological, psychological, social)
3. Most factors have no objective test

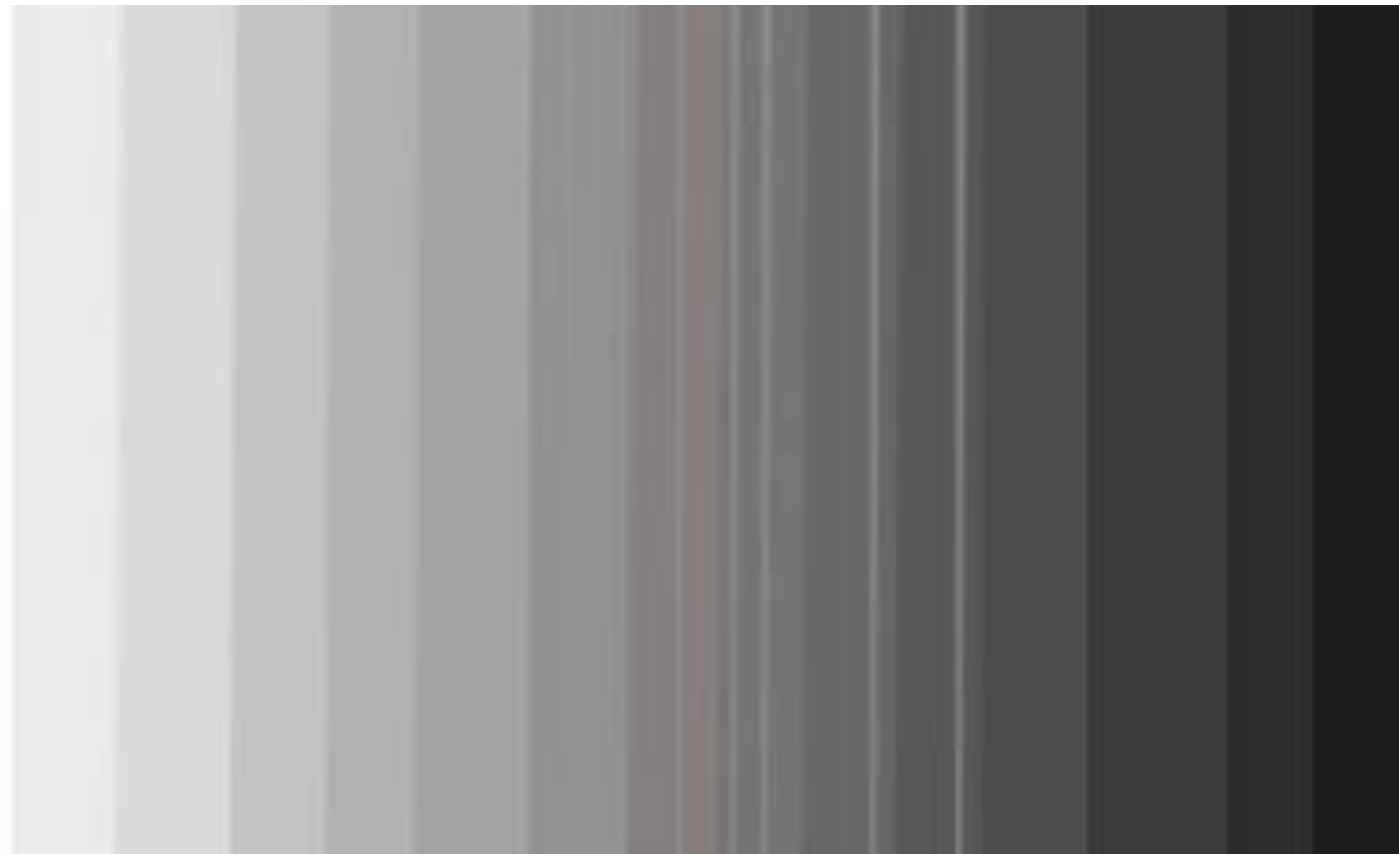
Comfort with Uncertainty

“Discomfort with uncertainty...result(s) in a tendency to seek quick answers and dogmatic clinical approaches”

Slade SC, et al. The dilemma of diagnostic uncertainty when treating people with chronic low back pain: a qualitative study. Clin Rehabil 2012;26(6):558-69.

Timmermans S, Angell A. Evidence-based medicine, clinical uncertainty and learning to doctor. J Health Soc Behav 2001; 42: 342–359.

Much of Primary Spine Care Occurs in the Gray Areas!

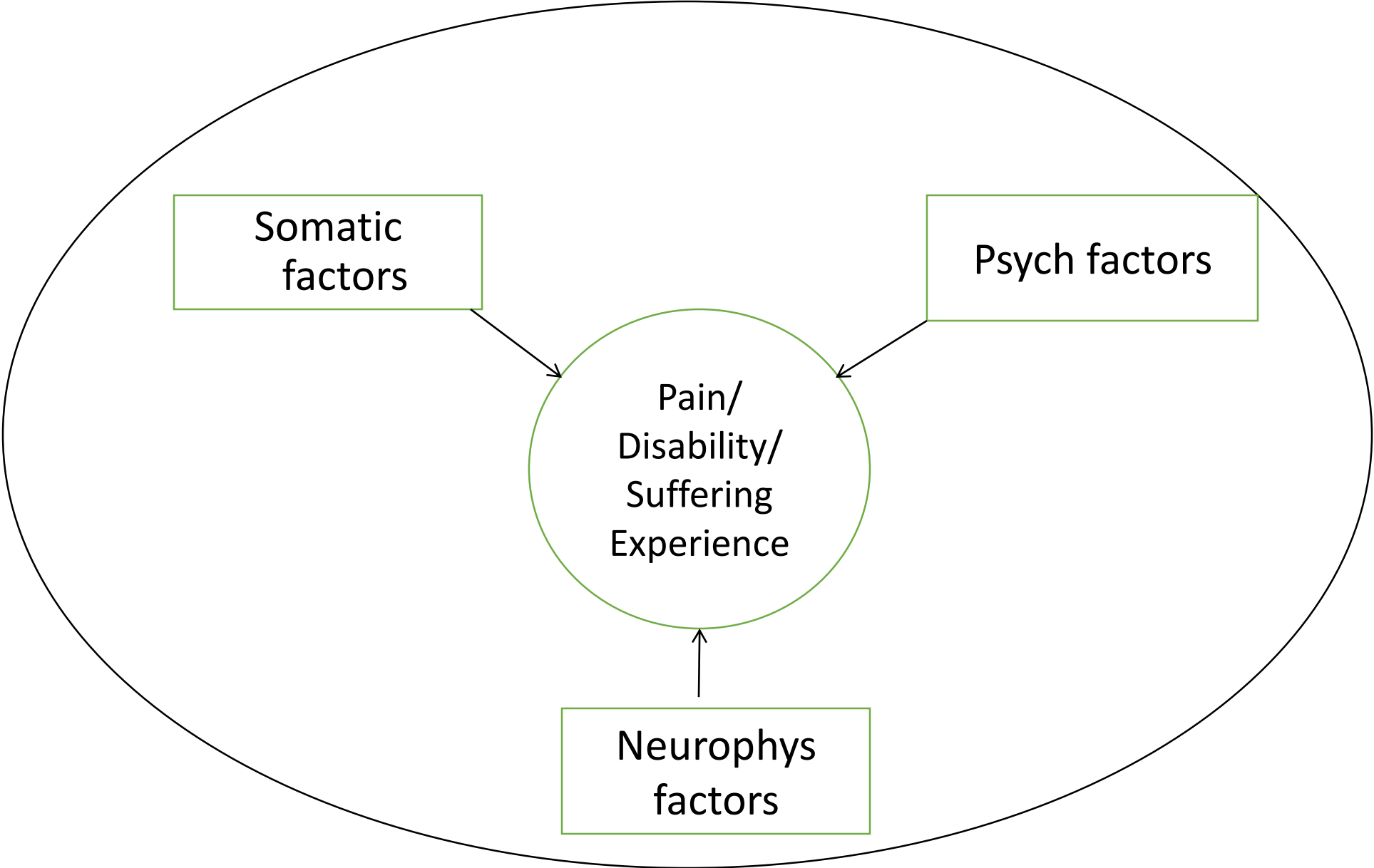


The ADTO Approach

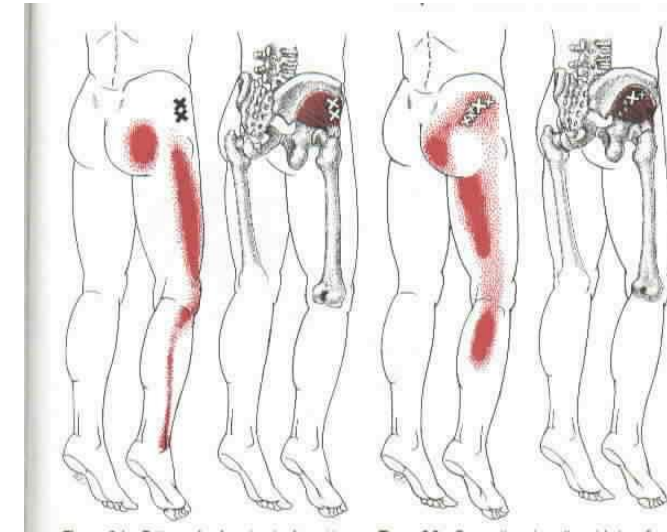
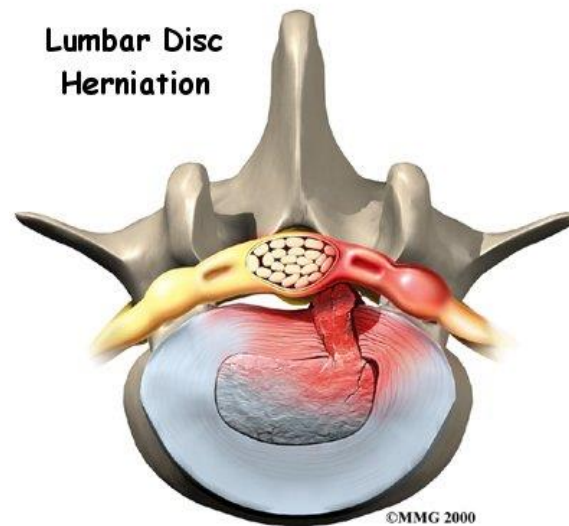
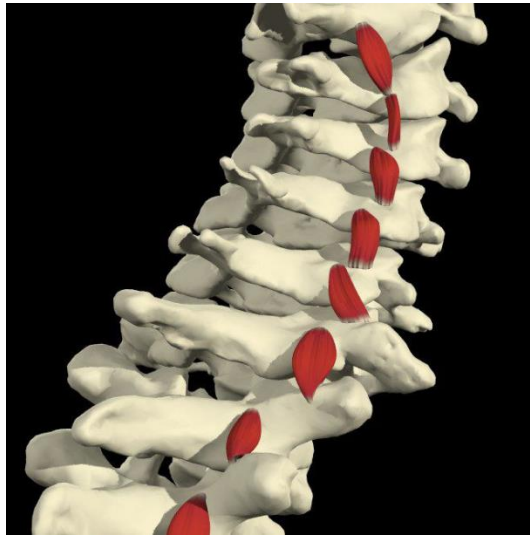
- A—Assessing symptoms, gen'l health, history, goals, expectations to determine diagnosis
- D—Specifying diagnoses based on Hx and exam
- T—Determining the "best" treatment based on the Dx
- O—Eval relevant outcomes

The Biopsychosocial Model

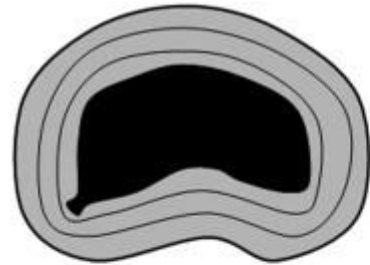
Social context



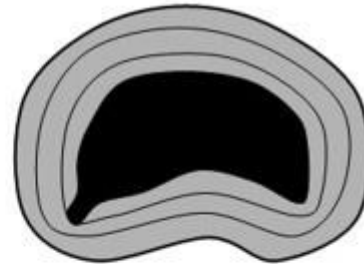
The “Bio” - Somatic Factors



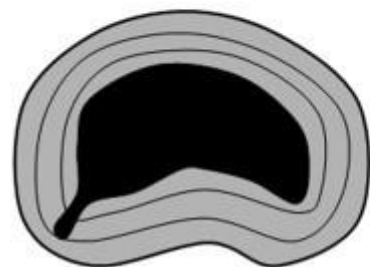
Disc Derangement (Internal Disc Disruption)



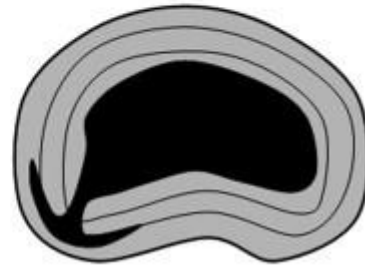
Grade I



Grade II



Grade III

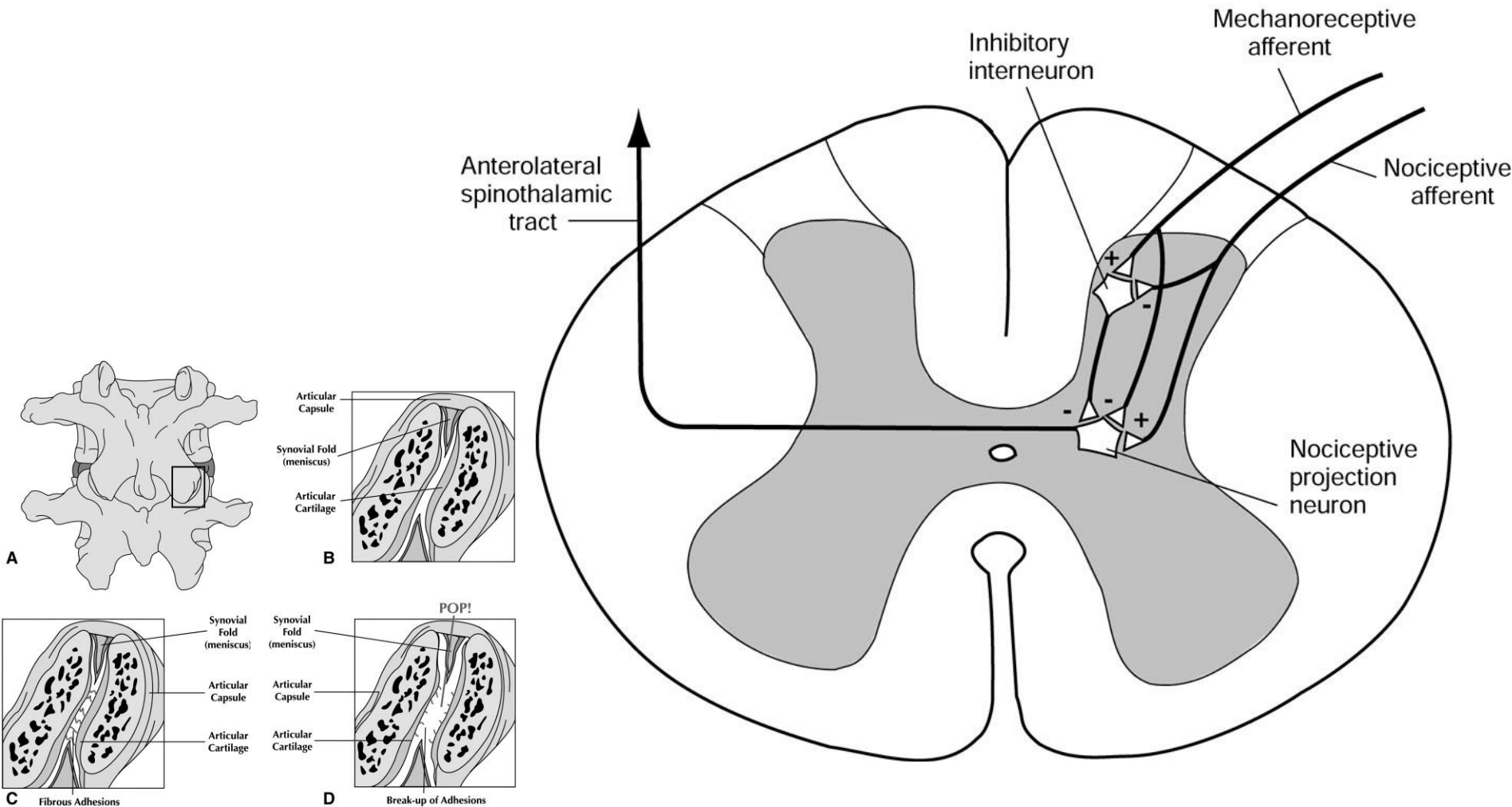


Grade IV

Adams M, Bogduk N, Burton K, Dolan P. The Biomechanics of Back Pain. Edinburgh: Churchill Livingstone, 2002

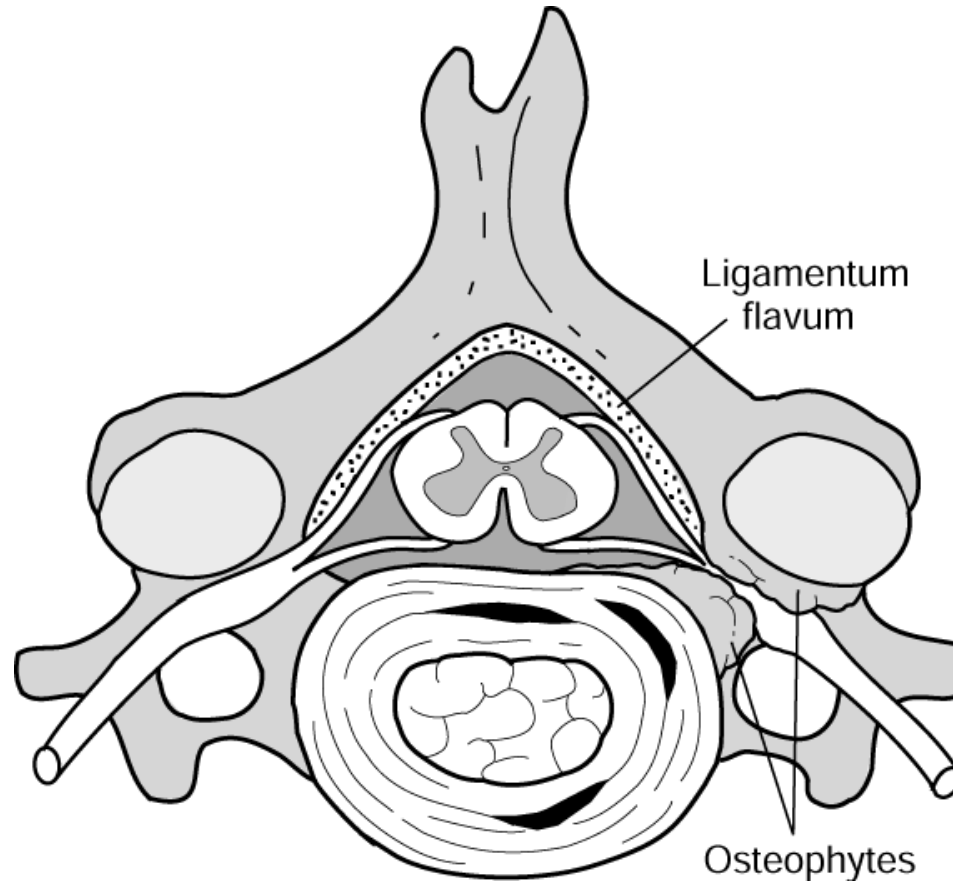
Bogduk N. Degenerative joint disease of the spine. Radiol Clin N Am 2012; 50:613-628.

Joint dysfunction

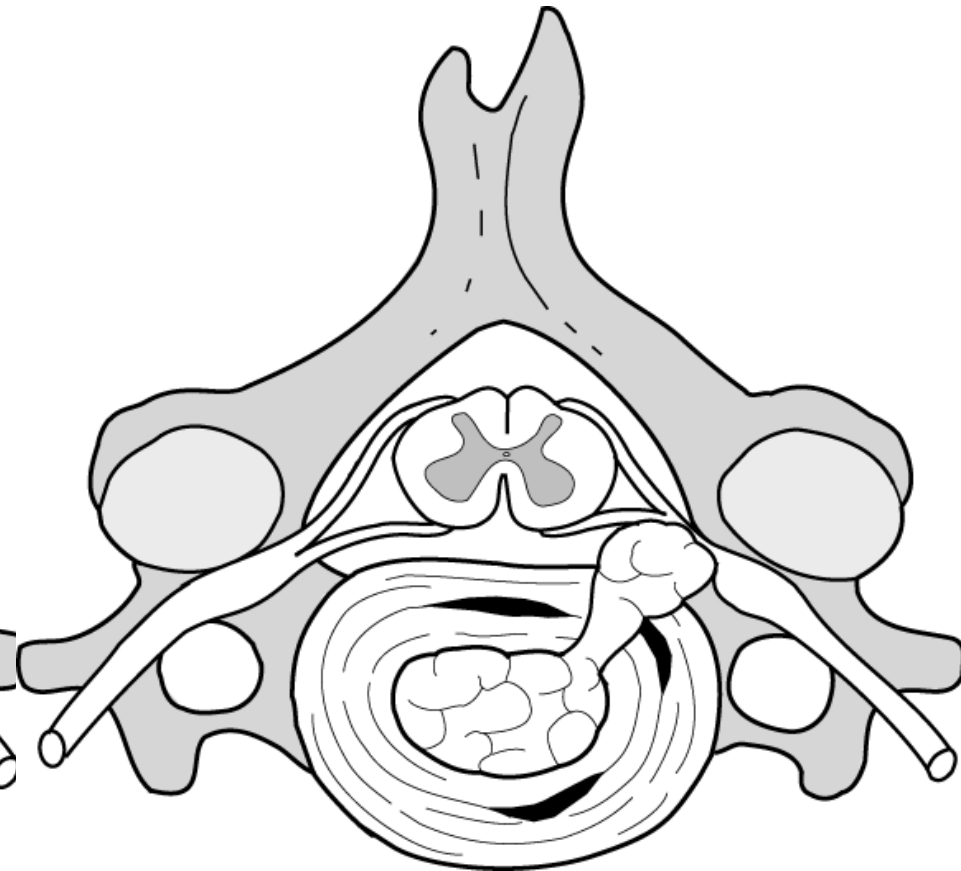


Radiculopathy

Spinal Stenosis



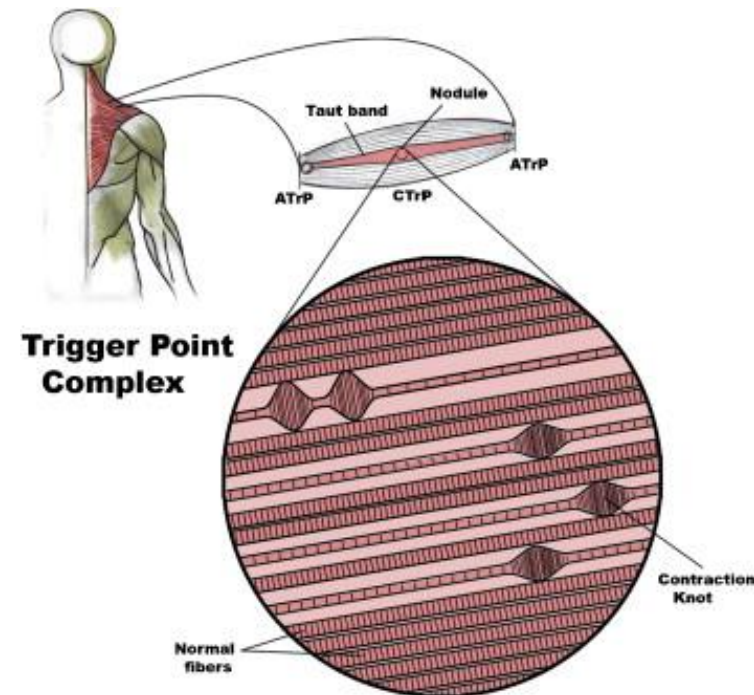
Disc Herniation



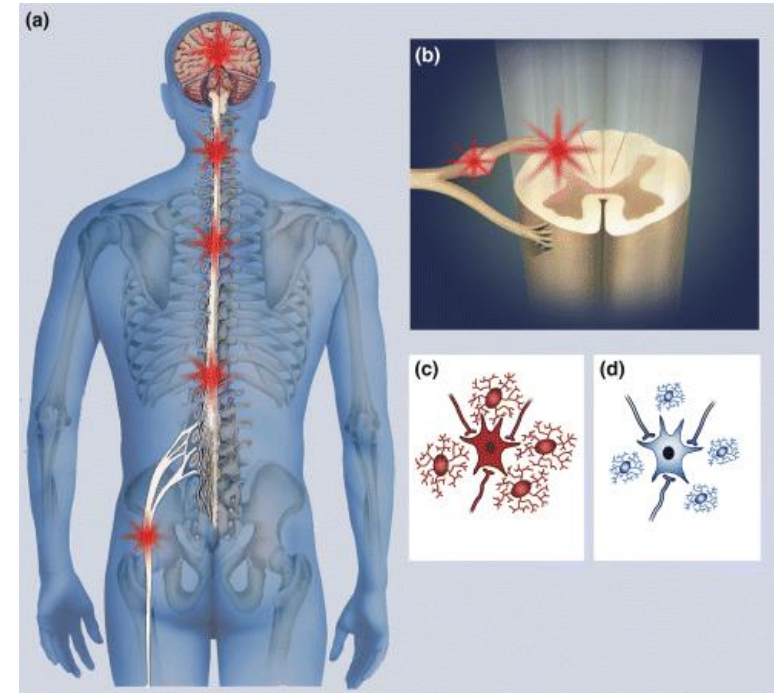
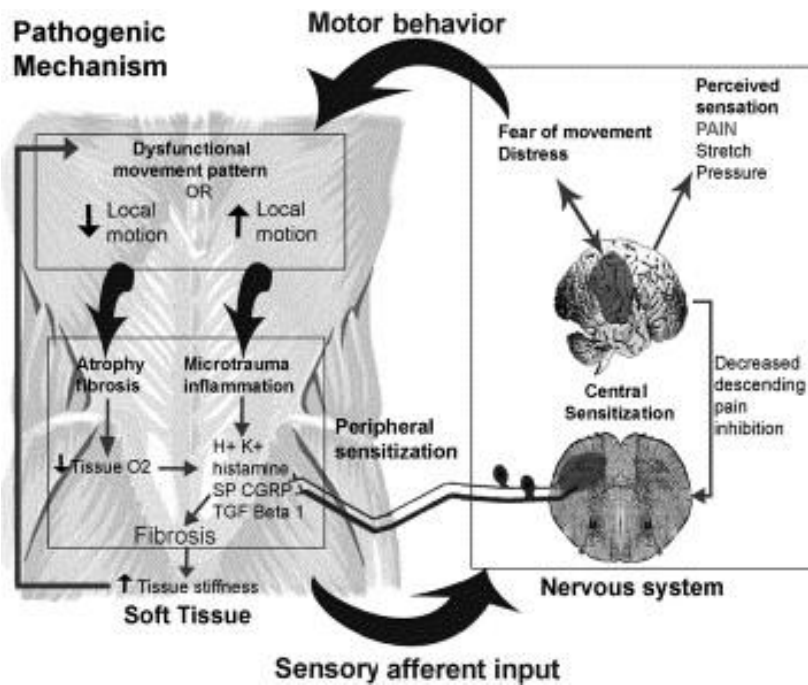
Myofascial Pain – Trigger Points

Simons DG, Travell JG, Simons LS. Myofascial Pain and Dysfunction: The Trigger Point Manual. Volume 1. Baltimore: Williams and Wilkens; 1999

Shah JP, Gilliams EA. Uncovering the biochemical milieu of myofascial trigger points using in vivo microdialysis: an application of muscle pain concepts to myofascial pain syndrome. J Bodyw Mov Ther. 2008;12(4):371-84.



The “Bio” – Neurophysiologic Factors



Instability

Dynamic stability: neuromuscular

Passive stability: ligamentous, etc

LOCAL STABILIZING SYSTEM OF THE THORACIC VERTEBRAL COLUMN

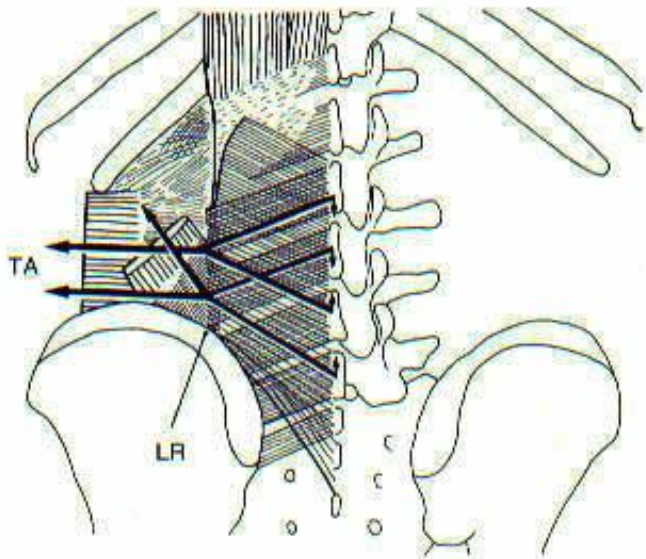
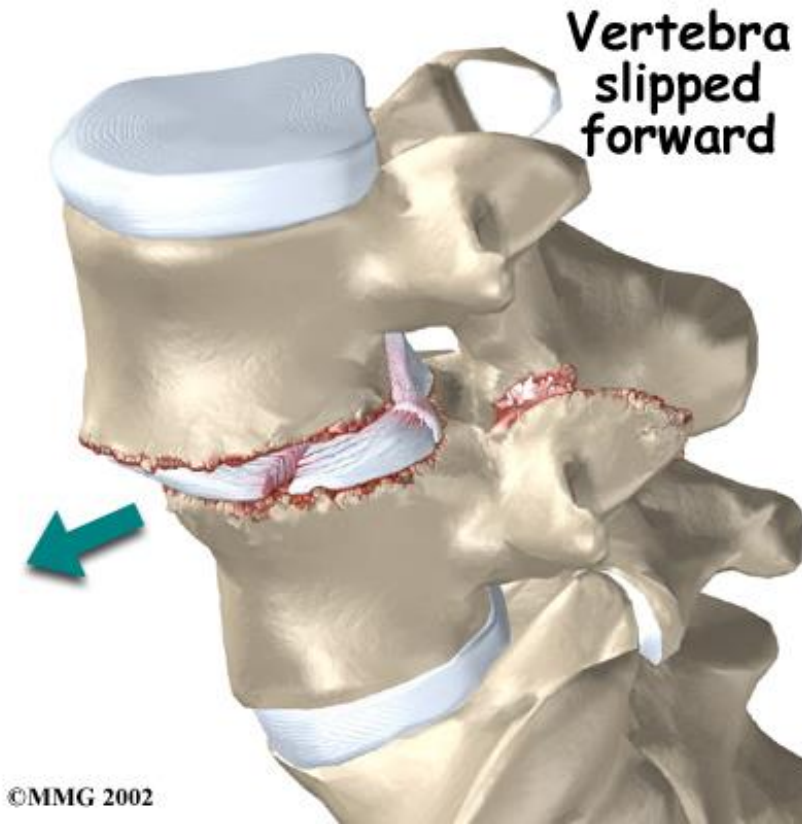
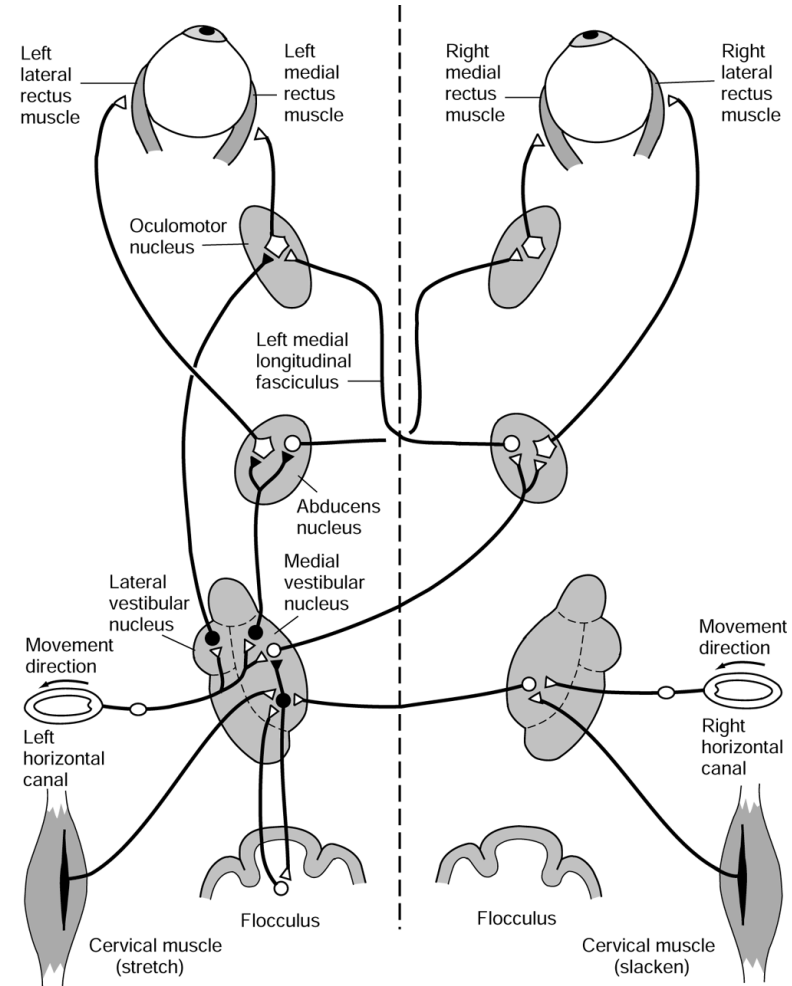


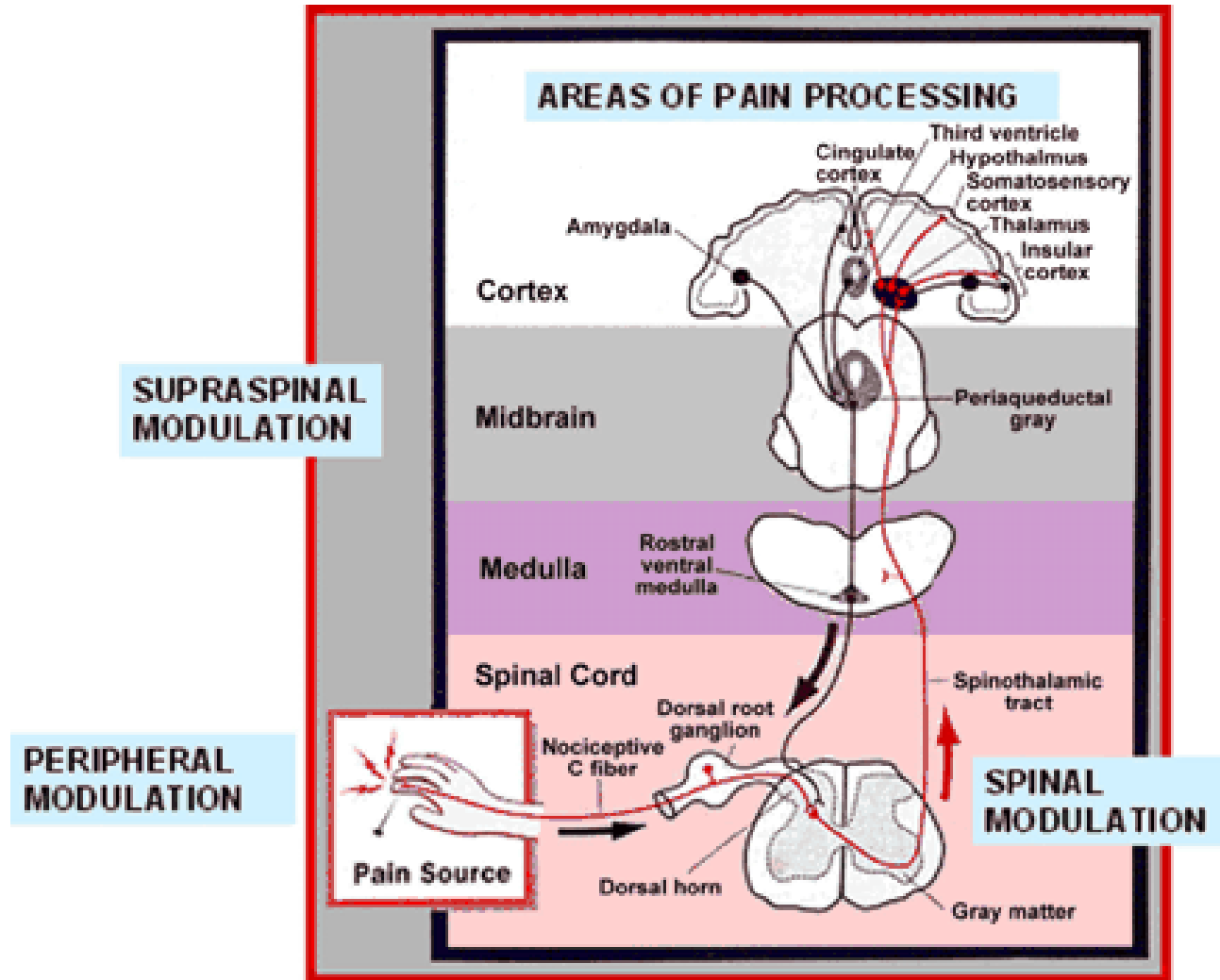
Figure 3.8 The mechanics of the thoracolumbar fascia



Oculomotor Dysfunction



Nociceptive System Sensitization

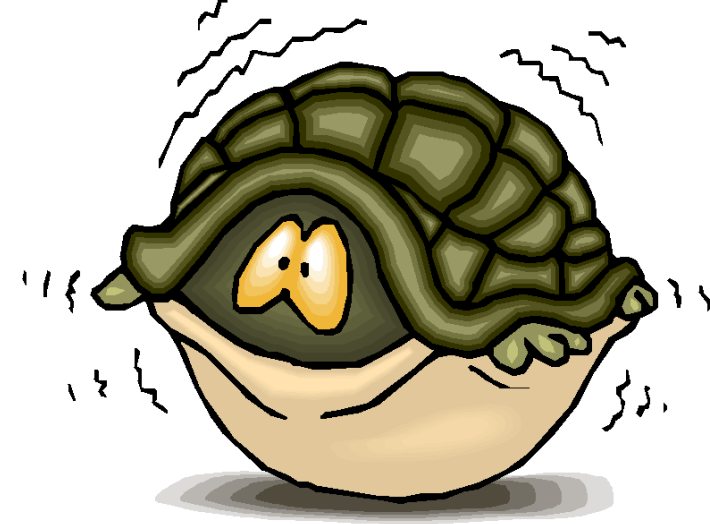


Psych Factors

- Fear
- Catastrophizing
- Passive coping
- Low self-efficacy
- Depressive sx's

The "Big 5"

- Perceived Injustice
- Cognitive fusion
- Hypervigilance
- Anxiety



The “Social”

- Job satisfaction
- ***Work Disability***
- Home life
- Social isolation
- Social disadvantage
- Relationships

So What's the Doc to Do?

Somatic

Neurophysiological

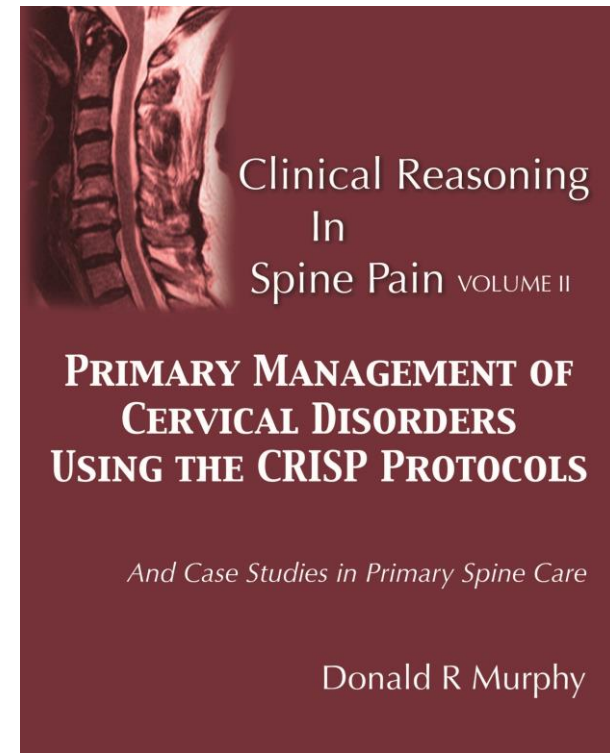
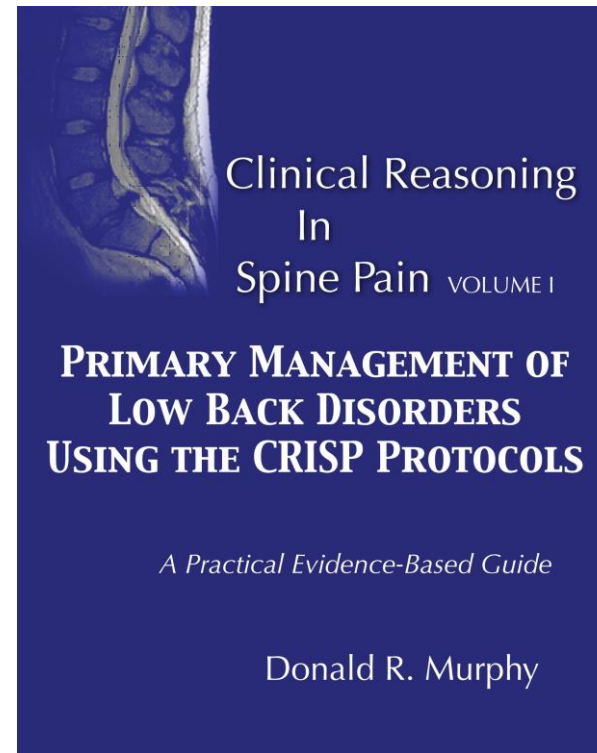


Psychological

Social

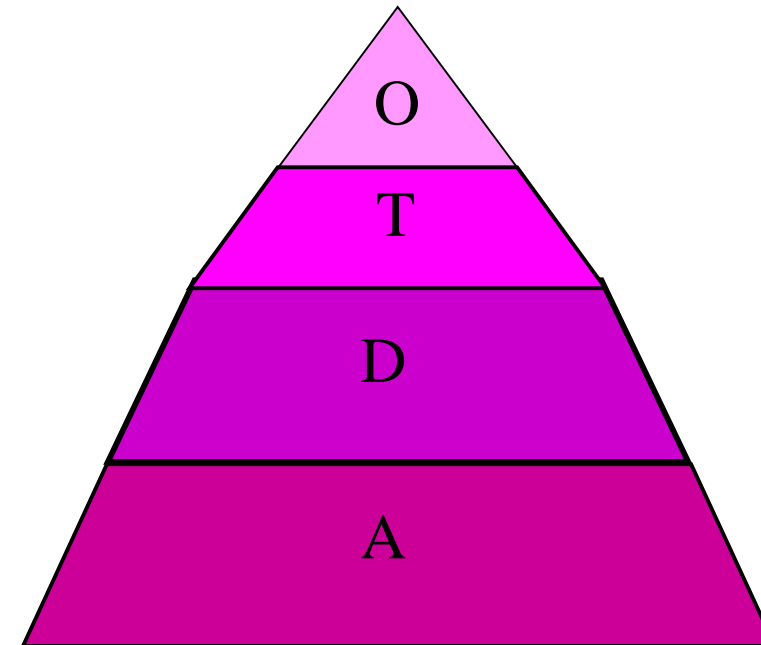
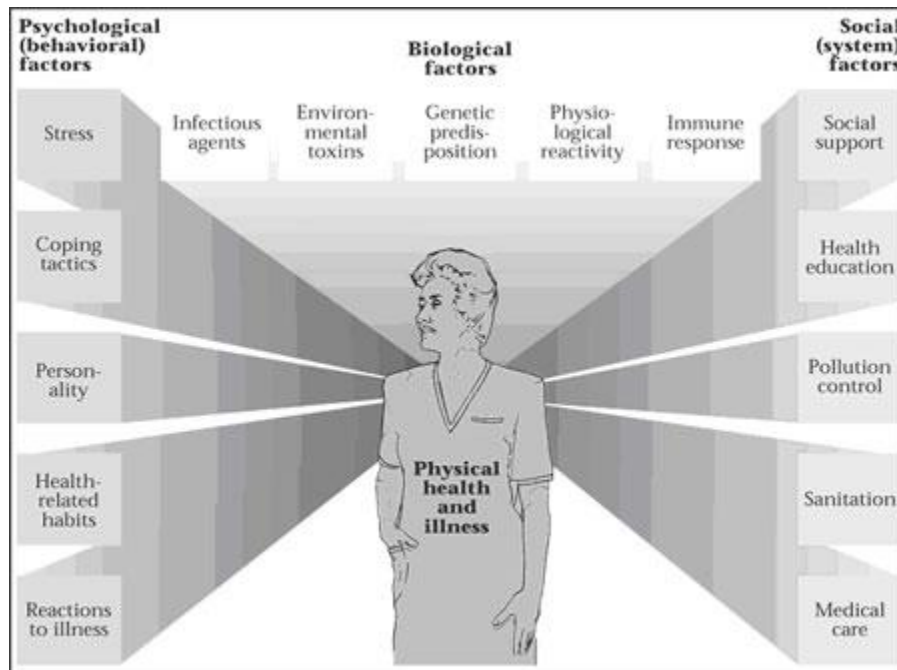
Clinical Reasoning in Spine Pain[®]

The CRISP[®] Protocols



CRISP® : Applying the BPS Model

CRISP® : Applying the ADTO Model



The Challenge of Spinal Dx

1. Spinal pain is multifactorial
2. Factors relate to various dimensions (somatic, neurophysiological, psychological, social)
3. Most factors have no objective test

The Three Essential Questions of Diagnosis

1. Do the presenting symptoms reflect a visceral disorder, or a serious or potentially life-threatening illness?
2. Where is the pain coming from?
3. What is happening with this person as a whole that would cause the pain experience to develop and persist?

Question #1:

Do the presenting symptoms reflect a visceral disorder, or a serious or potentially life-threatening illness?



Disorder	Detected by
Cancer	Hx CA, no pos relief, fever, constit sx, wt loss, blood in stool
Benign tumor	Local severe pain, no pos relief, relief w/ NSAID, px percussion
Infection	Hx fever, chills, febrile, pt tender, red, heat
Fracture	Hx trauma, hx osteoporosis, px percussion

Disorder	Detected by
GI disease	GI complaints, pain w/ food, abd exam
GU Disease	GU complaints, bleed, spot, discharge, GU exam
Myelopathy	Gait, bowel/ blad, UMN, spast, sens level
Cauda Equina Snd	Bowel/ blad, saddle anesth, anal sphincter tone

Question #2:
Where is the pain coming from?



Identify the Primary Pain Generator(s)



- Disc derangement
- Joint dysfunction
- Radiculopathy
- Myofascial trigger points

Question #3:

What is happening with this person as a whole that would cause the pain experience to develop and persist?

Perpetuating Factors Believed to Be Important in Spine Related Disorders

- Dynamic instability (impaired motor control)
- Passive instability
- Oculomotor dysfunction
- Nociceptive system sensitization
- Fear
- Catastrophizing
- Passive coping
- Poor self-efficacy
- Depression
- Etc
- Etc
- etc

Multi-Dimensional Diagnosis

- Dx Ques #1: Non-musculoskeletal factors
- Dx Ques #2: Pain generators
 - Disc derangement
 - Joint dysfunction
 - Radiculopathy
 - Myofascial pain
- Dx Ques # 3: Perpetuating factors
 - Instability
 - Oculomotor dysfunction
 - Nociceptive system sensitization
 - Psych factors

Management Decisions Dx Ques #2

- Disc derangement – end range loading (self applied), distraction manipulation
- Joint dysfunction – self-treatment, joint manipulation
- Radiculopathy –
 - Acute: NSAID, oral steroid, ESI
 - Chronic: neural mobilization – self-applied and practitioner-applied
 - In unusual cases, surgery
- Trigger points – myofascial treatments – self-applied and practitioner-applied

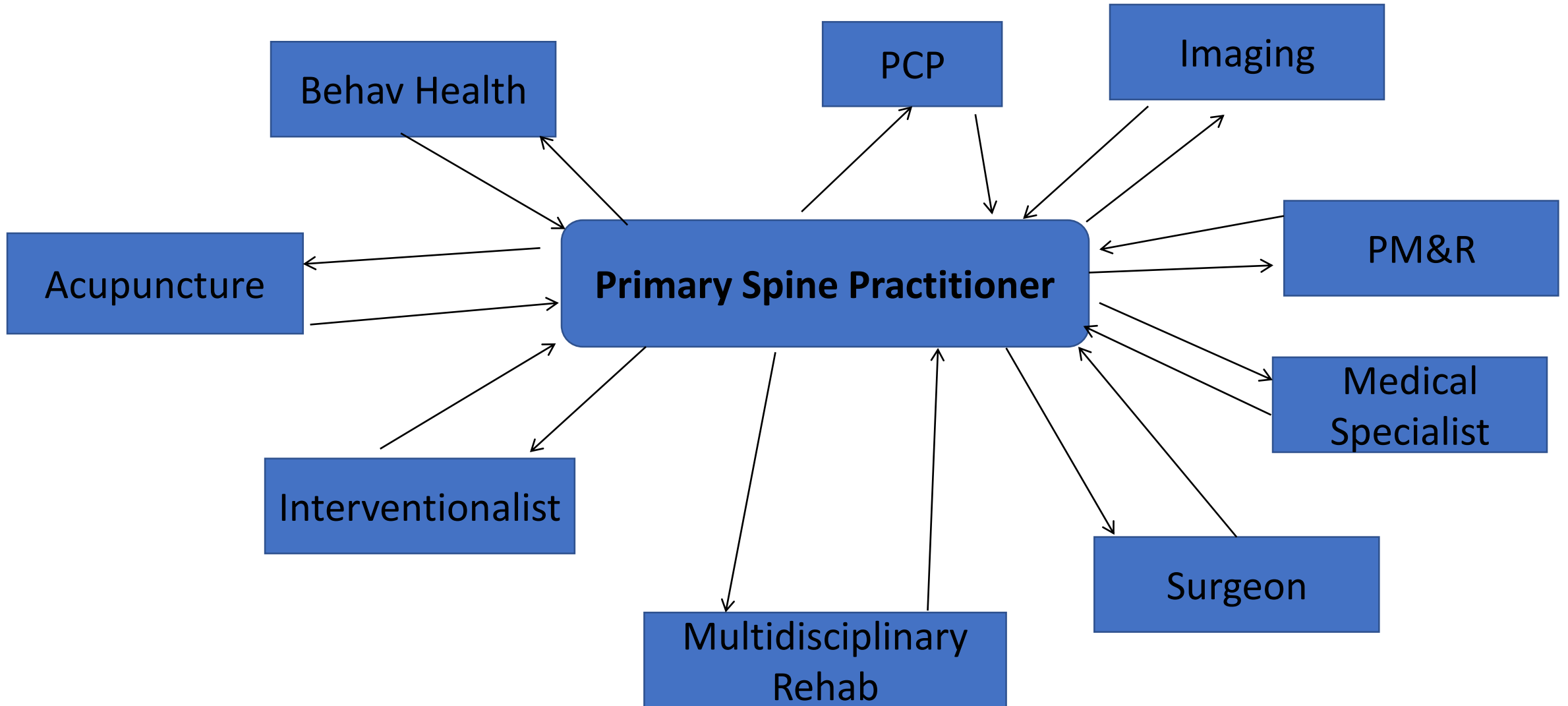
Management Decisions Dx Ques #3

- Instability – stabilization training; in unusual cases, surgery (passive instability)
- Oculomotor dysfunction – oculomotor exercise
- Nociceptive system sensitization – education and graded exposure
- Psych factors – *relationship-centered care*; education, behav health referral

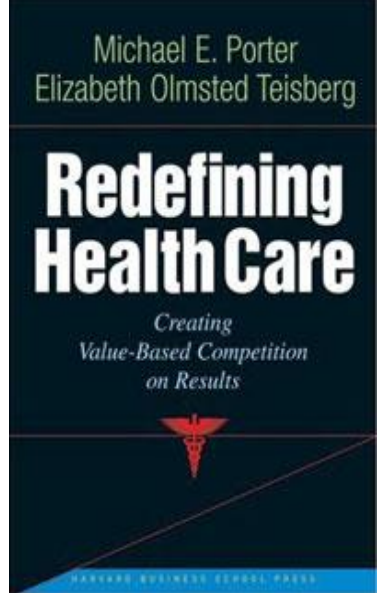
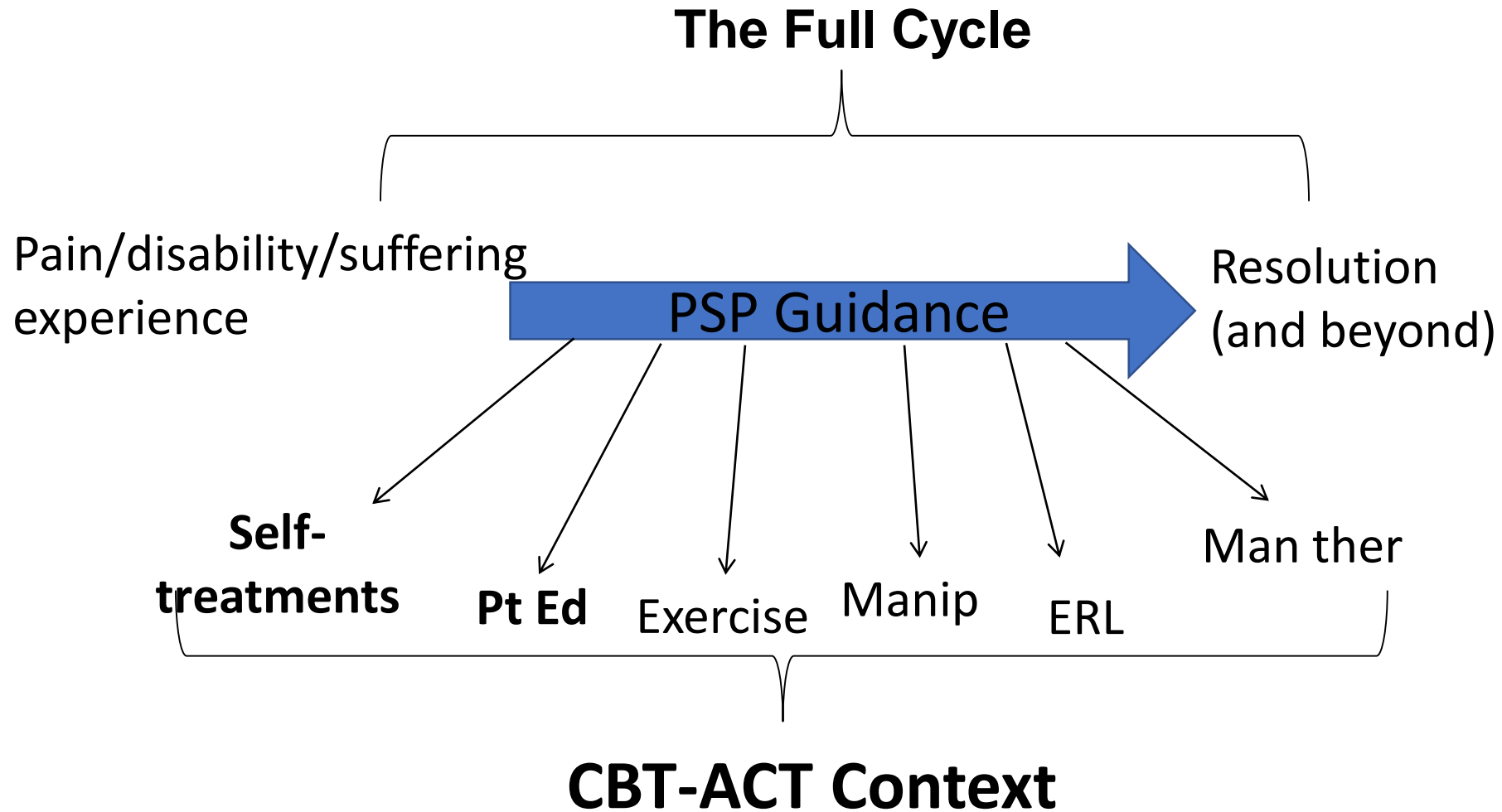
All management in a CBT-ACT context!!

Clinical Decision Making

*The majority managed by PSP w/o need for referral

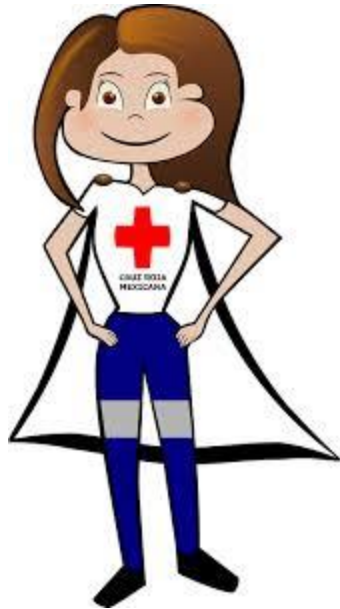


Guiding the patient across the *full cycle*:



The CRISP® Protocols...

Makes the patient the hero of the story!



¡Allá Vamos!

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