



University of California  
San Francisco

# Conservative Management of Low Back Pain

Peter I-Kung Wu, MD, PhD

Assistant Professor

Non-Operative Spine

Physical Medicine and Rehabilitation

Department of Orthopaedic Surgery

UCSF Osher

Mini Medical School

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No Disclosures

# Objectives

- Low Back Pain (LBP)
  - Epidemiology
  - Spinal Anatomy
  - Common Causes of LBP
- Evaluation
- Lumbar Disorders
  - Axial Lumbar Pain
  - Lumbar Radicular Pain
- Management
- Summary



# Epidemiology

- Low Back Pain (LBP): **50–85% of adults** experience at least **one episode of back pain during their lifetime**
- 2019: **mean annual incidence up to 7%**, and **prevalence up to 20%**
- The point prevalence of LBP in 2017 was estimated to be about **7.5% of the global population**, or around 577.0 million people



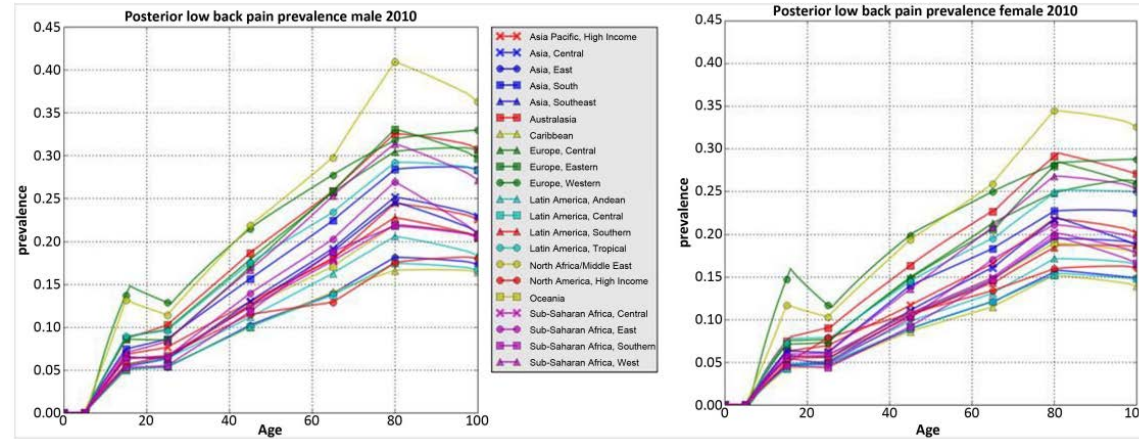
# Epidemiology

- **LBP is the leading cause of disability, activity limitation, and work absence worldwide:** ~65 million years lived with disability (YLD) in 2017
  - increase in health care expenditure, insurance costs, missed days from work, reduced productivity
- In 2016, **low back and neck pain had the highest amount of US health care spending** with and estimated **\$134.5B**, followed by other musculoskeletal condition, diabetes, and ischemic heart disease.

# Epidemiology

## ■ Risk Factors

- Age
- Sex: M>F: OR (1.1 - 17.3)
- Race and Genetics
- Intensity of physical activity
- Lifting, Bending, Twisting
- Low socioeconomic status
- Poor general health
- Psychological state
- Occupational and environmental factors – low job satisfaction, lengthy period of standing or sitting



## The Global Burden of Low Back Pain

2021 About Back Pain

- **Natural History**

Low Back Pain – “**pain in the area on the posterior aspect of the body from the lower margin of the twelfth ribs to the lower gluteal folds with or without pain referred into one or both lower limbs that lasts for at least one day**”

- Acute back pain is often defined as lasting <4 weeks
- Subacute back pain lasts 4 to 12 weeks
- Chronic back pain lasts >12 weeks
  - **Many patients do not present for medical care for acute LBP, as it typically resolves on its own without intervention.**
  - ~20% with acute back pain go on to develop chronic back pain
  - **Fewer than 1 in 3 people living with chronic LBP have associated substantial restriction of participation in work, social activities, and self-care activities for 6 months or more**



# Epidemiology

## The Global Burden of Low Back Pain

2021 About Back Pain

- For 85-95% of people presenting to primary care providers with low back pain, it is a mechanical or musculoskeletal cause of pain
- Only a small proportion have a pathological cause.
  - 5% with inflammatory spondyloarthropathies
  - 0.7 - 4.5% with osteoporotic vertebral fractures
  - 0.1 - 0.7% with malignancy
  - 0.04% with cauda equina syndrome
  - 0.01% with infections





# Spinal Anatomy

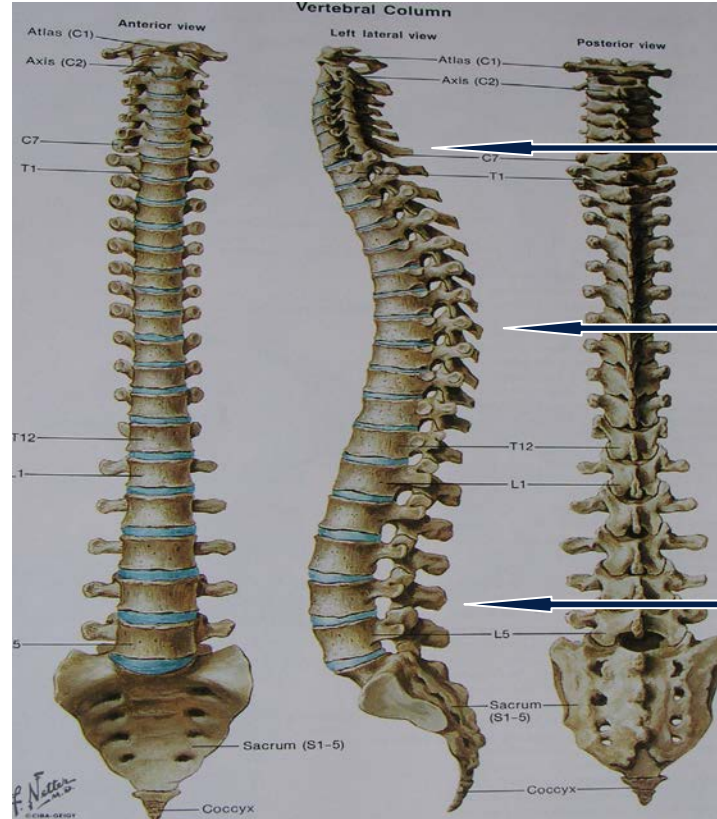
cervical



thoracic



lumbar



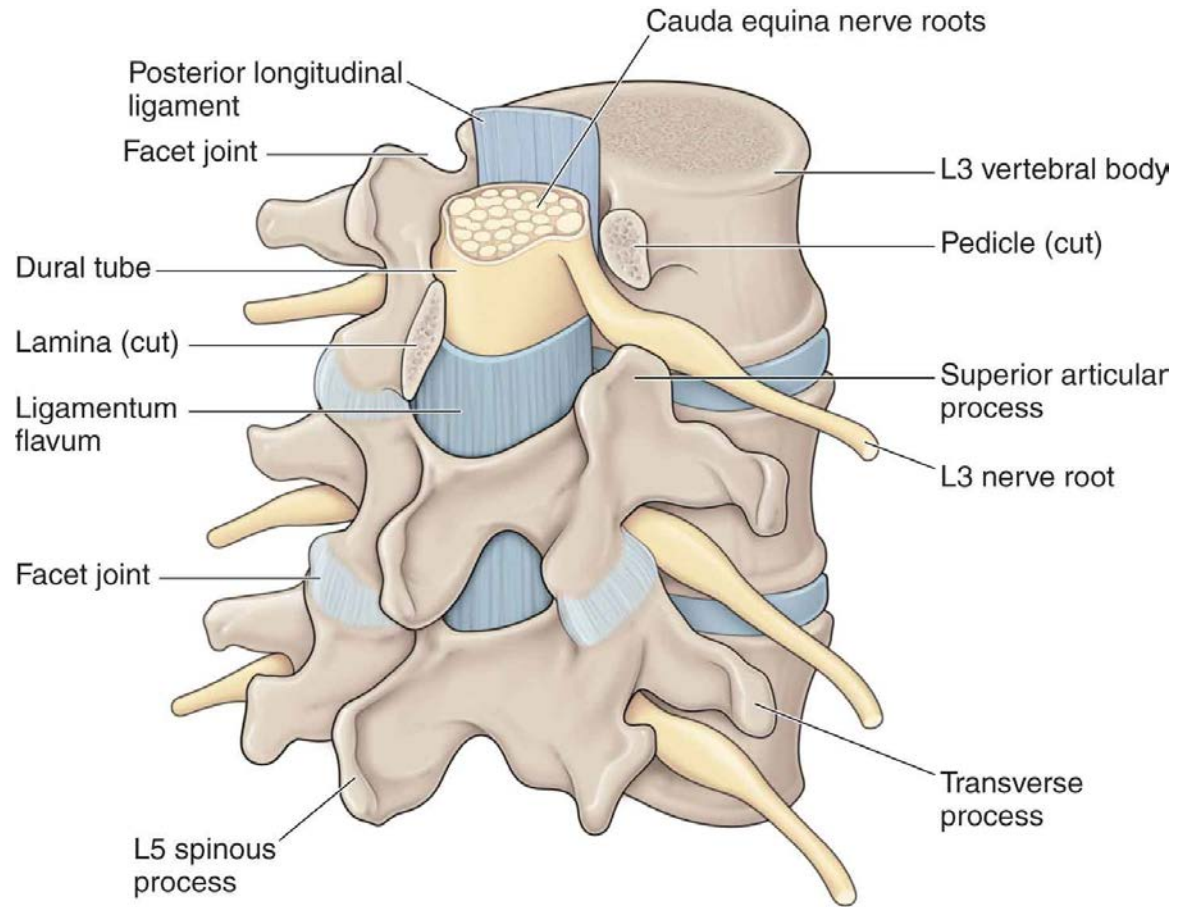
lordosis

kyphosis

lordosis

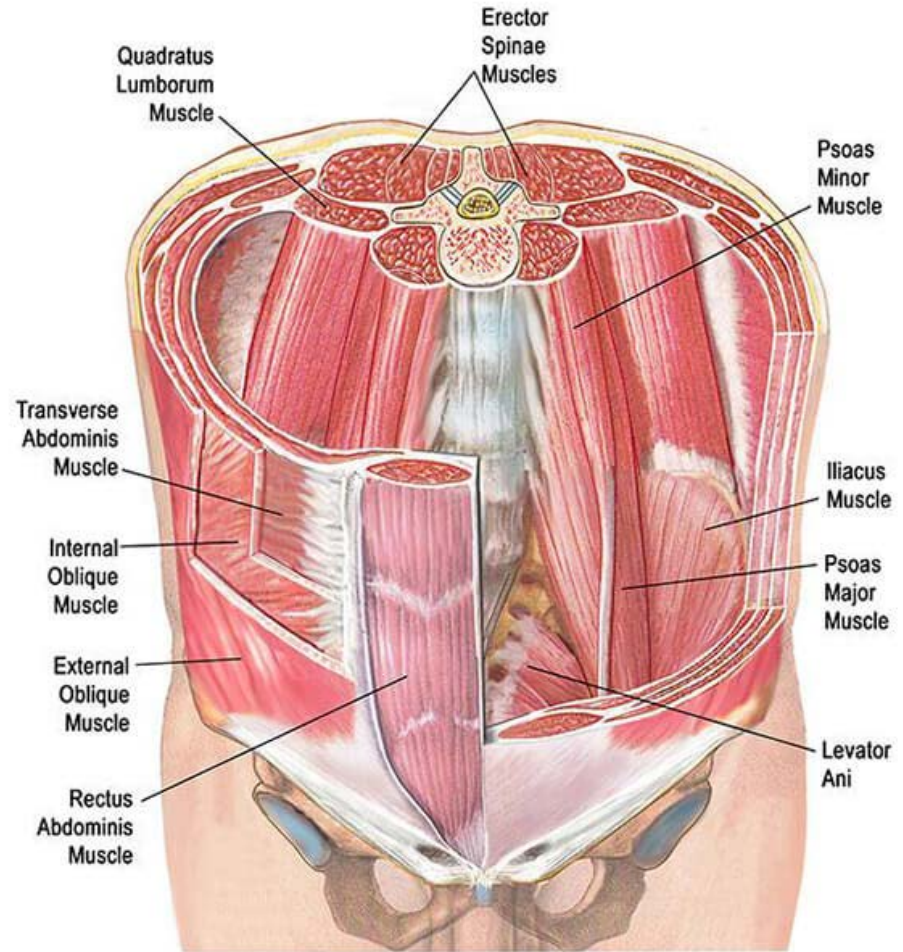
# Spinal Anatomy

- Bony - vertebrae: body, 2 pedicles, 2 lamina, 4 articular facets, 1 spinous process
- Intervertebral discs, ligaments, spinal cord and nerve roots



# Spinal Anatomy

- Core Musculature:  
(for stability and motion)
  - erector spinae
  - quadratus lumborum
  - psoas
  - transversus abdominis
  - external obliques
  - gluteus muscles
  - latissimus dorsi



# Common Causes of Low Back Pain

Common Cause of Low Back Pain by Age	
<b>Prepubescent</b>	
Developmental – scoliosis, spinal dysraphism	Trauma
Infection – discitis, epidural abscess, osteomyelitis	Malignancy
<b>Adolescent</b>	
Developmental – hyperlordosis, scoliosis, Scheuermann, dysraphism	Trauma
	Inflammatory - spondyloarthropathies
Spondylosis	Discogenic
<b>Adult</b>	
Discogenic	Osteoarthritis
Mechanical/ Non-Specific	
<b>Elderly</b>	
Discogenic	Osteoarthritis
Spinal Stenosis	Medical comorbidity – cancer, osteoporosis

# Evaluation

- **History**

- **Key points for Differential Diagnosis**

- Pain History:

- Onset and Mechanism of Injury: inciting factors, trauma, activities
        - nerve root impingement from foraminal stenosis may have **insidious onset**
      - Trauma History: motor vehicle accidents, sports activities, falls
      - Medical History: h/o low back pain, rheumatologic disorders
      - Surgical History: prior spine or hip surgeries
      - Occupational History: work-related demands, lifting, prolonged sitting

# Evaluation

- **History**

- **Key points for Differential Diagnosis**

- Pain Quality:

- **Neurogenic:** burning, electric, shooting, buzzing, etc.

- **Nerve root compression** caused by an acute intervertebral disc herniation may produce **low back pain initially**, followed by radiating leg pain

- **Lumbar spinal stenosis** may present with **back pain, stiffness, and lower extremity pain.**

- **Nociceptive:** achy, deep, throbbing, sharp, stabbing, stiffness, etc.

- **Lumbar facetogenic pain produces axial pain and stiffness**

# Evaluation

- **History**

- **Key points for Differential Diagnosis**

- Affected areas

- **Axial spine:** disc, facet joints, myofascial (muscular and connective tissue)
      - **Referred pain:** facet joints, sacroiliac joints, myofascial, hip joints
      - **Radiating pain:** radicular, plexopathy, peripheral neuropathy, neurogenic claudication, circulatory dysfunction



# Evaluation

- **History**

- **Key points for Differential Diagnosis**

- Exacerbating factors

- Lumbar flexion (discogenic, radicular): sitting, bending forward, coughing
      - Lumbar extension (central stenosis, facetogenic): walking down inclines, leaning back
      - Cervical range of motion (facetogenic, uncovertebral): neck flexion, extension, turning
      - Activities (sacroiliac joints, joints, discogenic, facetogenic) – standing from sitting, weight bearing, walking

# Evaluation

- **History**
  - **Key points for Differential Diagnosis**
    - Mood Disorders
      - Depression, Anxiety
      - PTSD, history of abuse, trauma, psychosocial stressors
    - Sleep Disorder

# Evaluation

- **History**
  - **Key points for Differential Diagnosis**
    - Associated Factors
      - Extremity swelling, skin changes, sensitivity to touch, temperature or color changes

# Evaluation

- **History**
  - **Key points for Differential Diagnosis**
    - Red Flags and Surgical Indications
      - Focal weakness, leg buckling, leg heaviness and fatigue
      - Discoordination, tripping, falls
      - Sensory loss
      - Loss of control of bowel or bladder function, saddle anesthesia or pain
      - History of cancer, fever, chills, sweats; unexplained weight loss; night pain
      - Recent invasive spinal procedure concerning for iatrogenic injury or infection
      - Trauma

# Evaluation

- **Previous Treatments**

- **Medications**

- Currently taking
    - Previously tried
    - Not tried

- **Interventions/Injections**

- **Rehabilitation**

- **Complementary and Alternative Medicines**

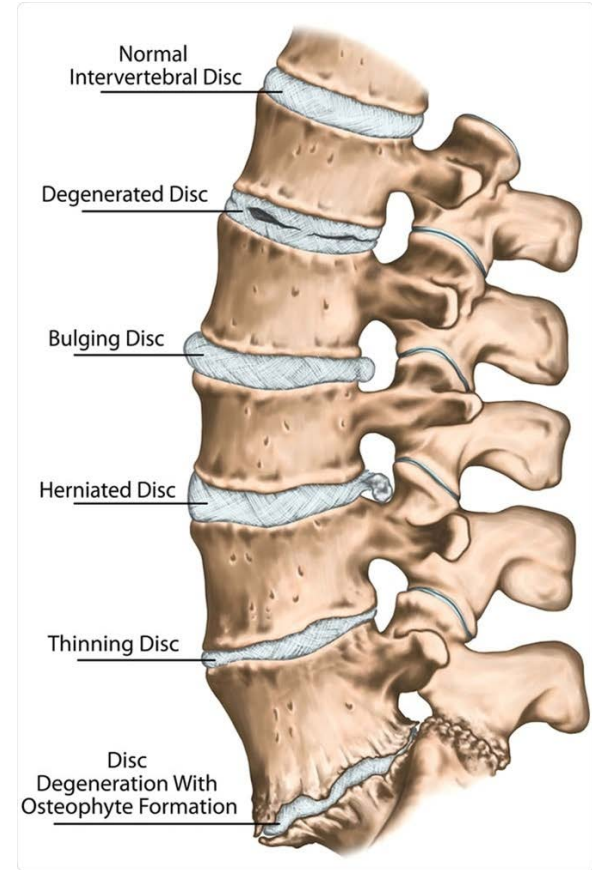
# Evaluation

- **Physical Exam**

- **Palpation**
- **Motor Strength**
- **Sensation**
- **Reflexes**
- **Provocative Maneuvers – Neural Tension**

# Lumbar Disorders

- **Axial Lumbar Pain**
  - **Discogenic**
    - Deep, sharp
    - Refers to the sides of the spine or hips
    - Worse with bending forward, sitting, lifting





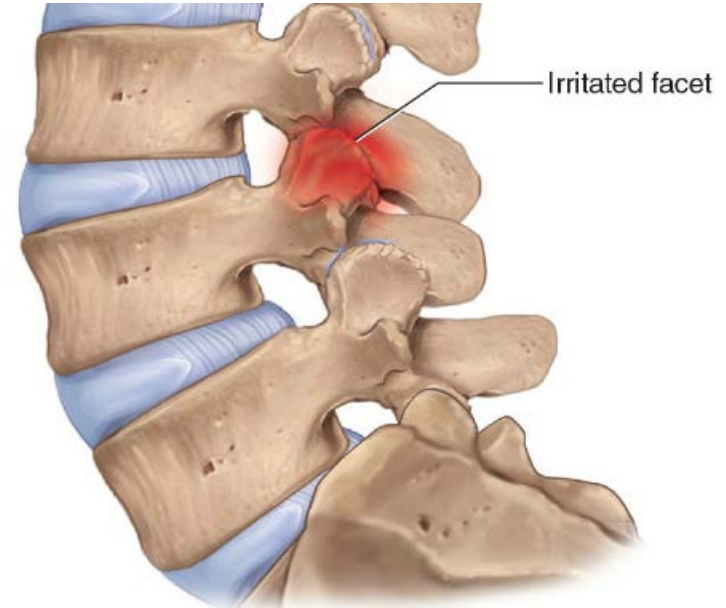
# Lumbar Disorders

- **Axial Lumbar Pain**

- **Discogenic**

- **Facetogenic**

- 5-15% of chronic, axial low back pain
    - Usually insidious onset
      - predisposed by spondylolisthesis
      - degenerative discs
    - back pain and referred to leg



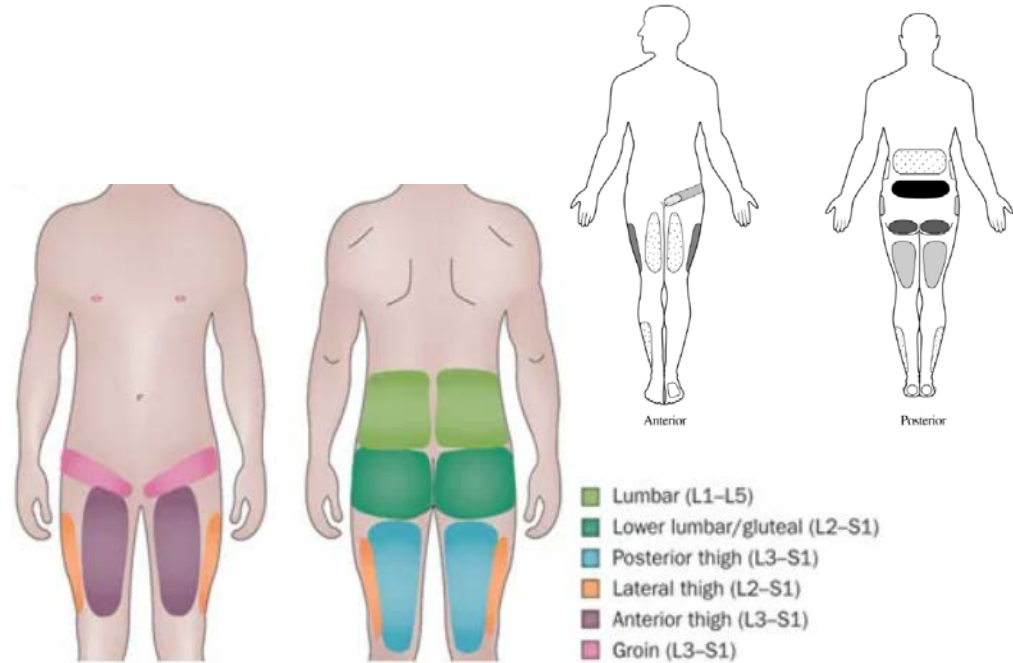
# Lumbar Disorders

- **Axial Lumbar Pain**

- **Discogenic**

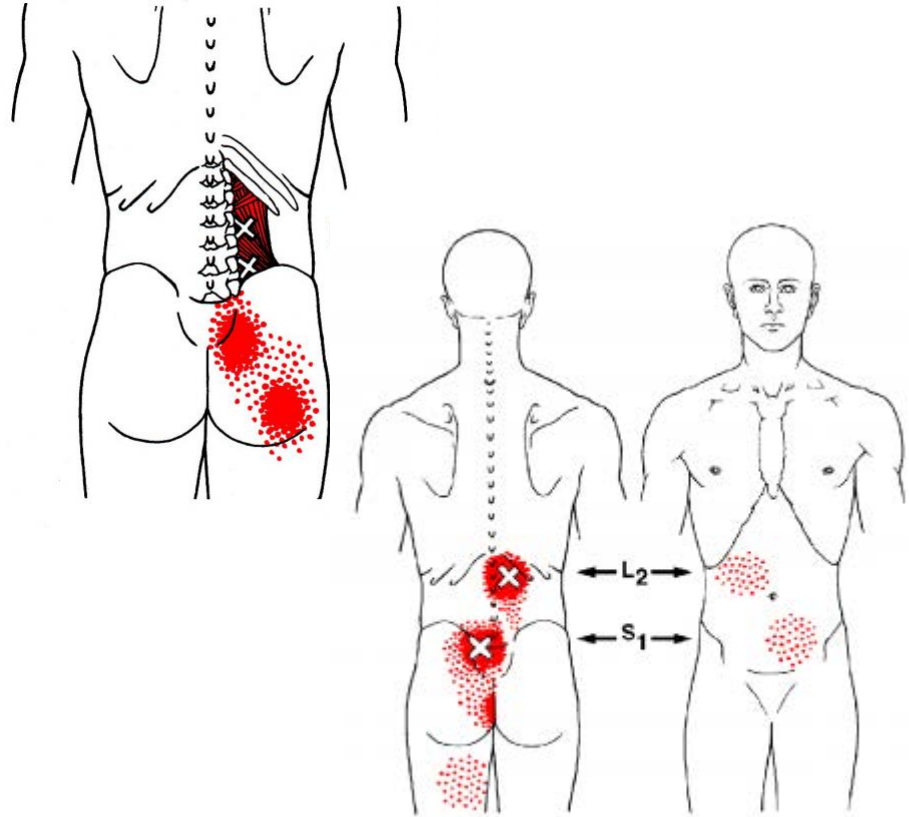
- **Facetogenic**

- 5-15% of chronic, axial low back pain
- Usually insidious onset
  - predisposed by spondylolisthesis
  - degenerative discs
- back pain and referred to leg
- paraspinal tenderness
- pain reproduced with extension-rotation, tilting, or forward flexion



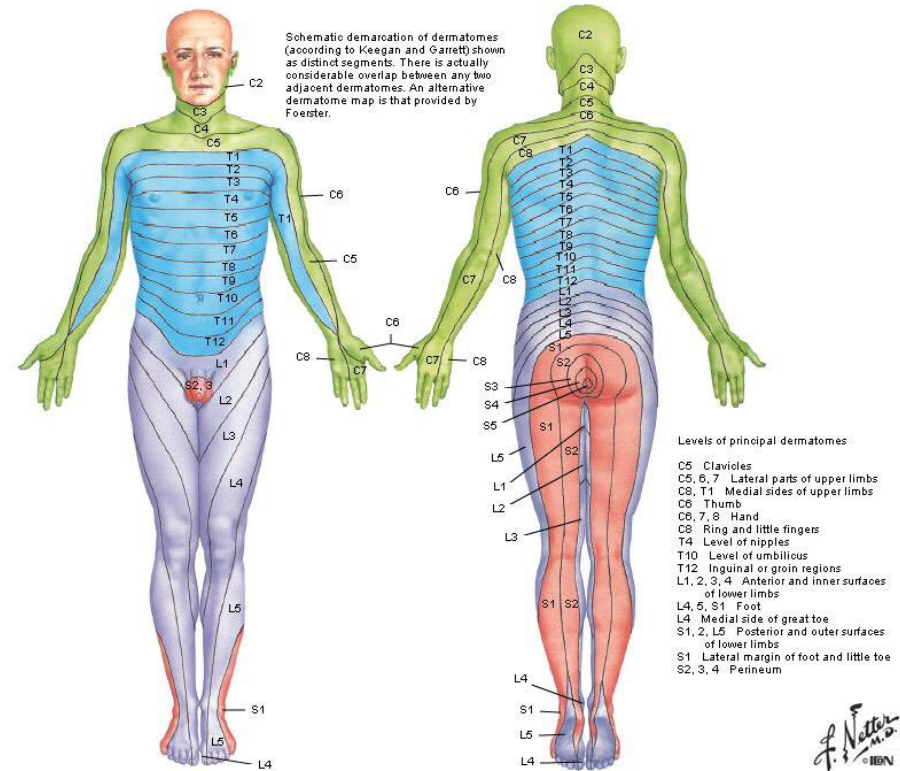
# Lumbar Disorders

- **Axial Lumbar Pain**
  - **Discogenic**
  - **Facetogenic**
  - **Myofascial**



# Lumbar Disorders

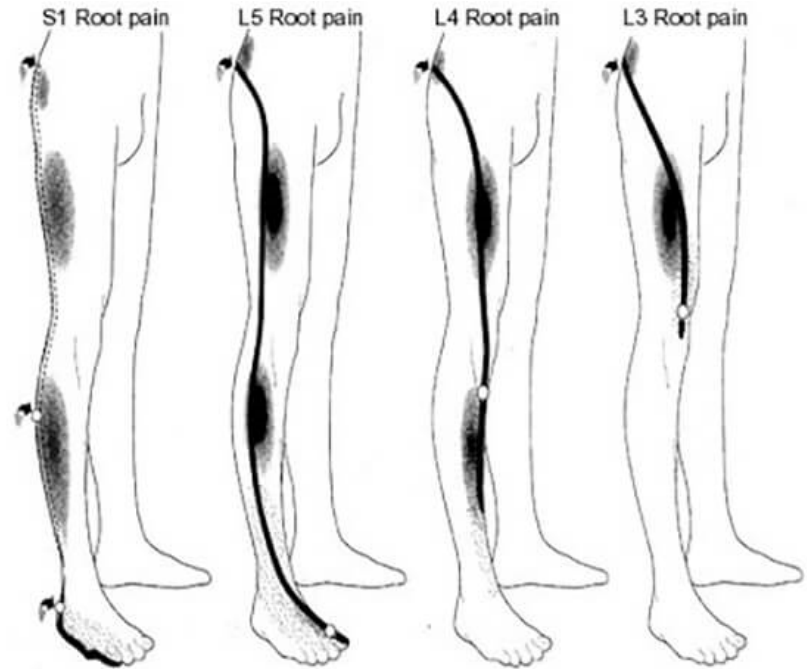
- **Lumbar Radicular Pain**
  - Symptoms may match a distinct pattern



# Lumbar Disorders

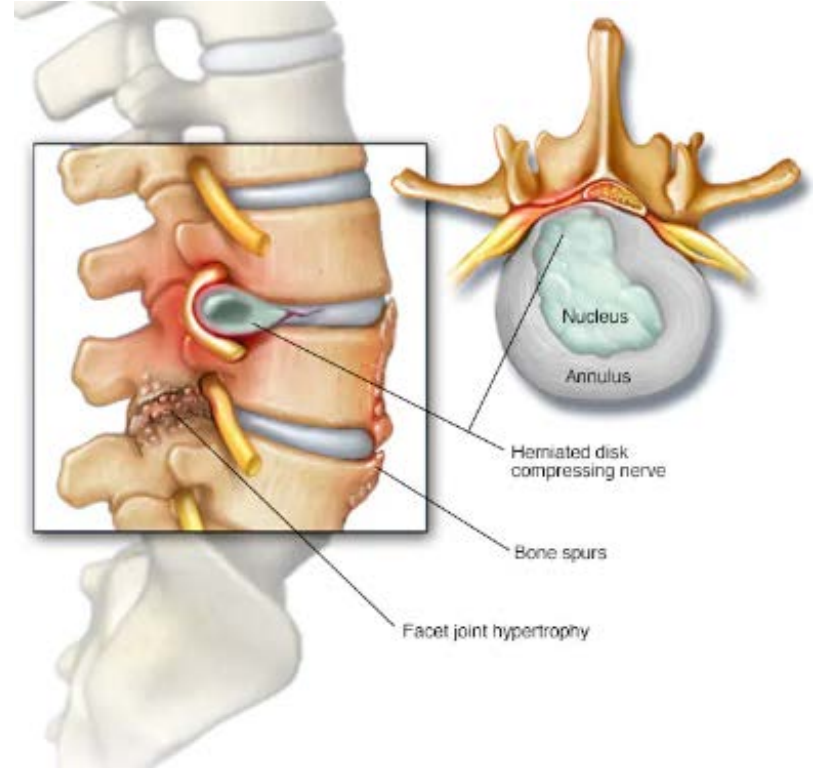
## ■ Lumbar Radicular Pain

- Symptoms may match a distinct pattern
- acute (from lifting, bending, twisting) or gradual
- leg pain > back pain
- numbness/tingling
- focal weakness
- pain aggravated by:
  - coughing, straining, sitting, bending forward



# Lumbar Disorders

- **Lumbar Radicular Pain**
  - Symptoms may match a distinct pattern
- **Neural Foraminal Stenosis**
  - Disc herniation



# Lumbar Disorders

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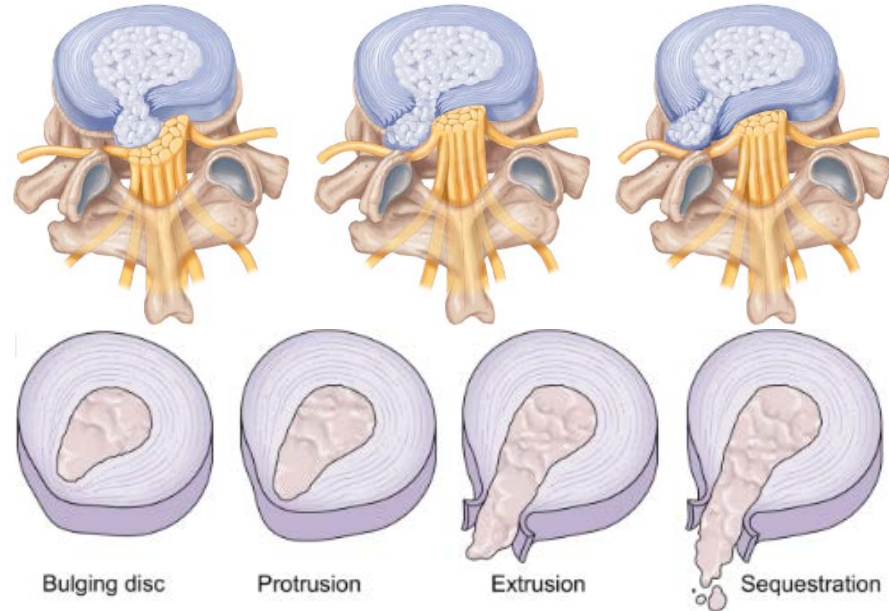
Original Article

## Does Size Matter? An Analysis of the Effect of Lumbar Disc Herniation Size on the Success of Nonoperative Treatment

Anmol Gupta, BS<sup>1</sup>, Shivam Upadhyaya, MD<sup>1</sup>, Caleb M. Yeung, MD<sup>1</sup>, Peter J. Ostergaard, MD<sup>1</sup>, Harold A. Fogel, MD<sup>1</sup>, Thomas Cha, MD<sup>1</sup>, Joseph Schwab, MD<sup>1</sup>, Chris Bono, MD<sup>1</sup>, and Stuart Hershman, MD<sup>1</sup>

AO  
SPINE

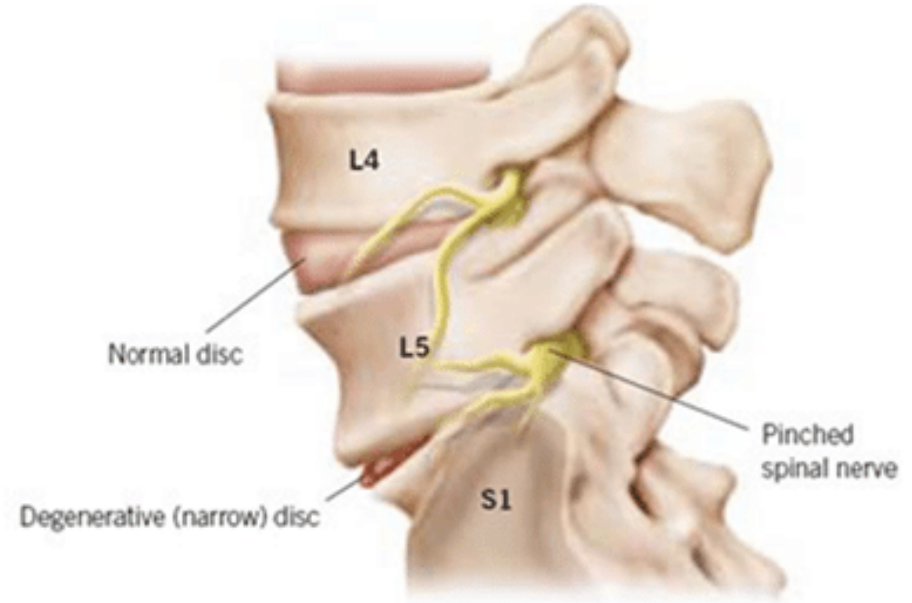
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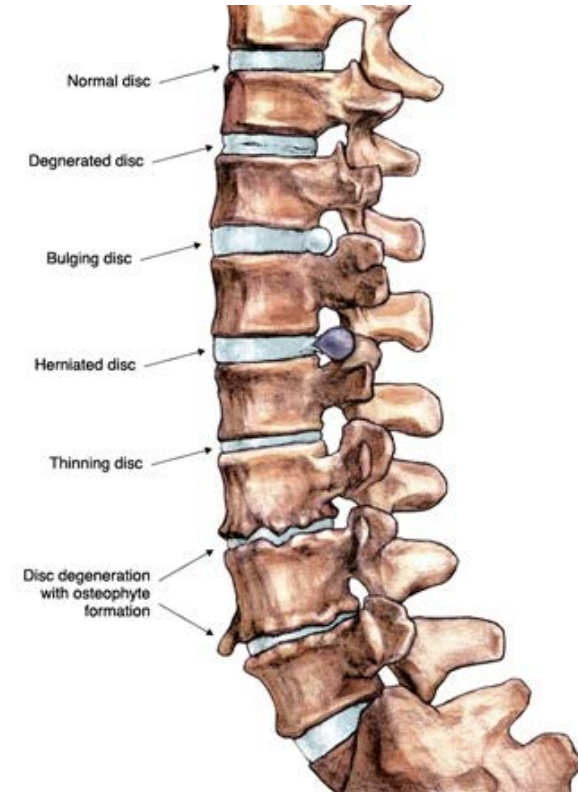
# Lumbar Disorders

- **Lumbar Radicular Pain**
  - Symptoms may match a distinct pattern
- **Neural Foraminal Stenosis**
  - Disc herniation
  - Degenerative changes



# The Aging Spine/ Degenerative Disc Disease

- Degenerative disc disease: desiccation of nucleus pulposus (central portion of disc) and buckling of disc annulus fibrosus
- Facet arthropathy: cartilage loss and joint hypertrophy and sclerosis
- Ligamentum flavum hypertrophy
- Osteophyte (bone spur) formation
- Narrowing of the central canal (space for spinal cord) and neural foramina (space for exiting nerve roots)



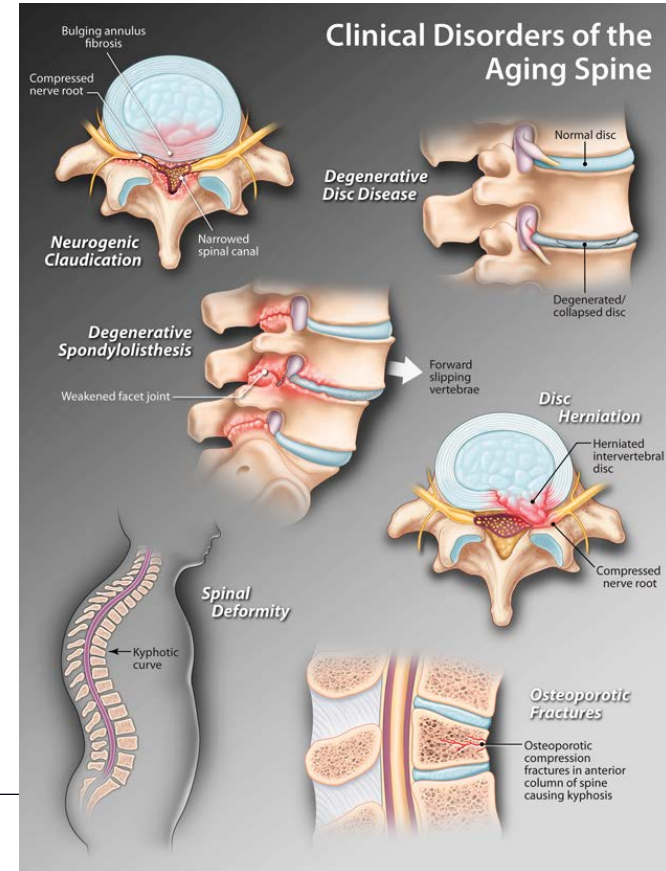
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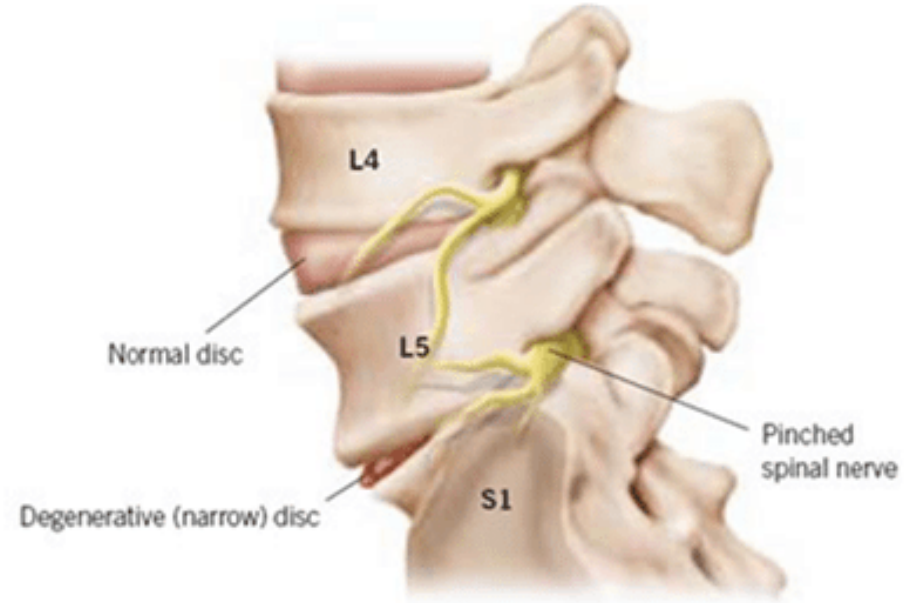
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# Lumbar Disorders

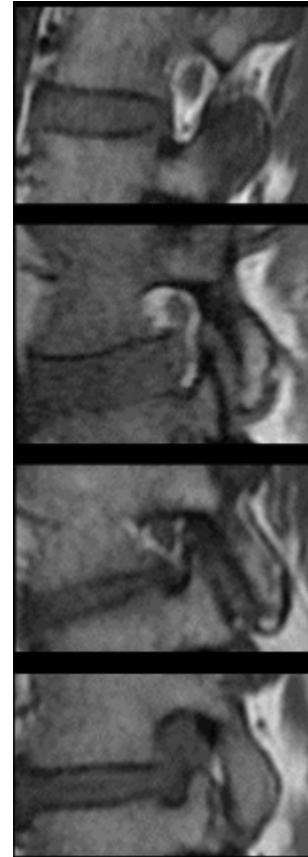
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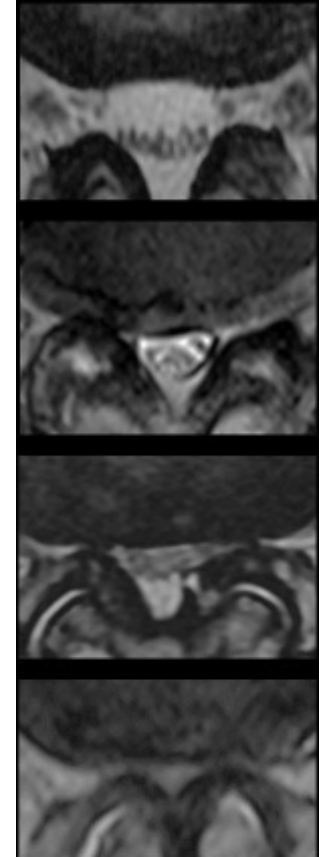
# Lumbar Disorders

- **Lumbar Radicular Pain**
  - Symptoms may match a distinct pattern
- **Neural Foraminal Stenosis**
  - Disc herniation
  - Degenerative changes
- **Central Spinal Stenosis**
  - Multi-level neuropathic symptoms
  - Heaviness or fatigue in the legs
    - Provoked by standing or walking
    - Improved by bending forward or sitting

**Neural Foraminal  
Stenosis**



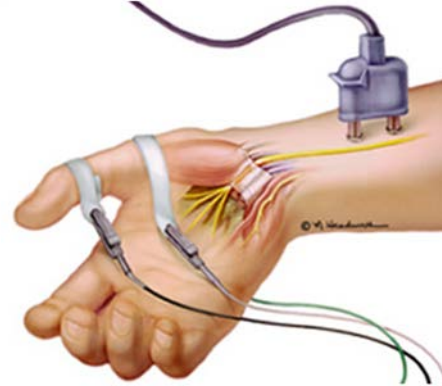
**Central Spinal  
Stenosis**



# Management - Diagnostics



XR, MRI, or CT



EMG/NCS



# Management - Diagnostics

## BEST PRACTICES IN ORTHOPEDICS

### Recommendations from the Choosing Wisely Campaign

Recommendation	Sponsoring organization
Avoid imaging studies (magnetic resonance imaging, computed tomography, or radiography) for acute low back pain without specific indications.	American Society of Anesthesiologists
Avoid lumbar spine imaging in the emergency department for adults with nontraumatic back pain unless the patient has severe or progressive neurologic deficits or is suspected of having a serious underlying condition (such as vertebral infection, cauda equina syndrome, or cancer with bony metastasis).	American College of Emergency Physicians
Do not perform imaging for low back pain in the first six weeks unless red flags are present. Red flags include, but are not limited to, severe or progressive neurologic deficits or suspected serious underlying conditions such as osteomyelitis.	American Academy of Family Physicians and American College of Physicians
Do not recommend advanced imaging (e.g., magnetic resonance imaging) of the spine within the first six weeks in patients with nonspecific acute low back pain in the absence of red flags.	North American Spine Society
Do not prescribe opiates for acute disabling low back pain before evaluation and a trial of alternatives is considered.	American Academy of Physical Medicine and Rehabilitation

**Source:** For more information on the Choosing Wisely Campaign, see <http://www.choosingwisely.org>. For supporting citations and to search Choosing Wisely recommendations relevant to primary care, see <https://www.aafp.org/afp/recommendations/search.htm>.

# Diagnostics

- **Lumbar XR**
  - evaluate for spinal alignment, scoliosis
  - evaluate for fractures
  - evaluate for stability of the spine

# Diagnostics

- **Lumbar MRI or CT**
  - recommended to evaluate **radiating lumbar pain**
  - MRI: to evaluate for **soft tissue** abnormalities, including disc herniations and nerve root impingement, tumors, ligamentous injury, facet edema
  - CT: to evaluates **osteophytes and hyperostosis**, disc **calcifications**, and when **MRI is contra-indicated** (aneurysm clips, metal implants, etc.)

# Diagnostics

## ■ EMG/NCS

- recommended to evaluate for **spinal nerve root abnormalities**
  - can **confirm the existence of nerve root dysfunction** and exclude other peripheral nerve disorders, such as brachial plexopathy, and myopathy
  - can **identify which nerve root(s)** is involved and determine the **type of dysfunction**, e.g., as demyelination, axonal loss, and conduction block.
- consider in patients with lower extremity pain, weakness, sensory loss, and a non-diagnostic imaging study
  - a non-diagnostic test result does not exclude nerve root dysfunction



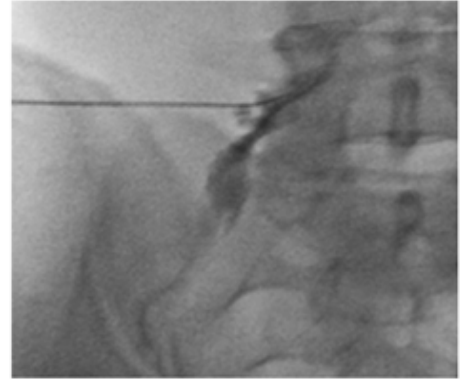
# Management



Physical Therapy



Medications



Interventions

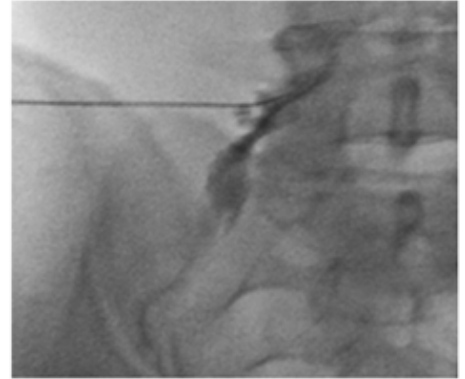
# Management



Physical Therapy

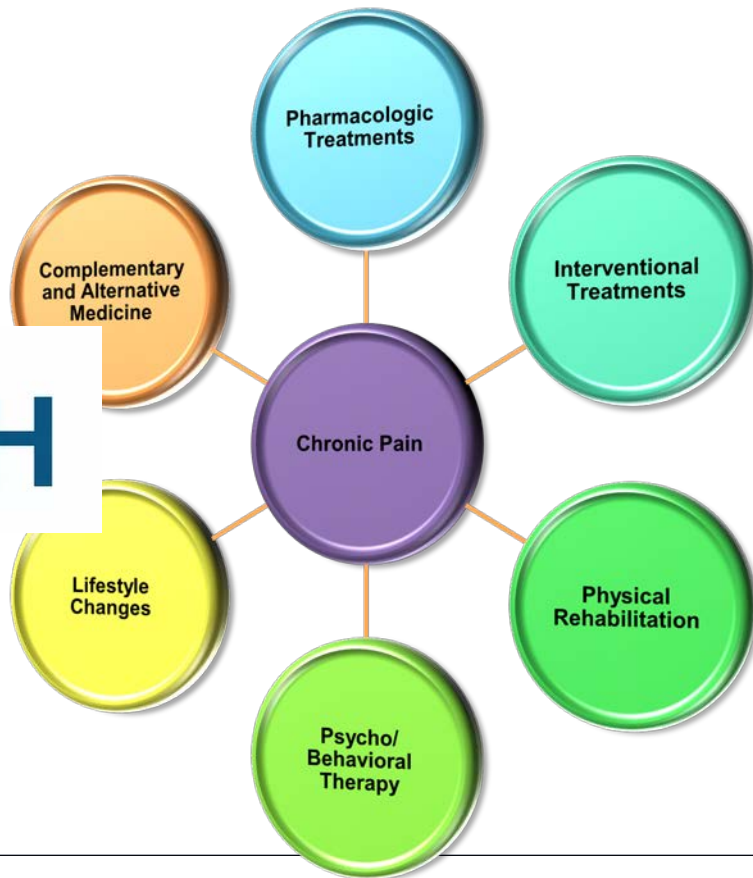


Medications



Interventions

# Management



## North American Spine Society

Evidence-Based Clinical Guidelines  
for Multidisciplinary Spine Care

### Grades of Recommendation:

- **A:** Good evidence (Level I studies with consistent findings) for or against recommending intervention.
- **B:** Fair evidence (Level II or III studies with consistent findings) for or against recommending intervention.
- **C:** Poor quality evidence (Level IV or V studies) for or against recommending intervention.
- **I:** Insufficient or conflicting evidence not allowing a recommendation for or against intervention.

**A**=Recommended

**B**=Suggested

**C**=May be Considered

**I**=Insufficient or Conflicting Evidence



# Management - Physical Therapy

## PM&R

In patients undergoing treatment for low back pain, what are the outcomes, including duration of pain, intensity of pain, functional outcomes and return-to-work status, for **bed rest versus active exercise**?

**B** | It is suggested that, for patients with acute low back pain, those that exercise more at baseline and use exercise to facilitate recovery are predicted to have better functional outcomes over time than patients who do not exercise or use bed rest to help with recovery.

### Grades of Recommendation:

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# Management - Physical Therapy

## PM&R

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In patients undergoing treatment for low back pain, what is the effectiveness of the following in decreasing the duration of pain, decreasing intensity of pain, increasing functional outcomes and improving return to work status, as compared with natural history plus or minus medication:

a. Acute vs subacute vs chronic

iv. **Bracing (Lumbosacral, Sacroiliac)**

**I | There is conflicting evidence that bracing results in improvements in pain and function in patients with subacute low back pain.**

Grades of Recommendation:

- **A:** Good evidence (Level I studies with consistent findings) for or against recommending intervention.
- **B:** Fair evidence (Level II or III studies with consistent findings) for or against recommending intervention.
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a. Acute vs subacute vs chronic

i. Patient education and **self-directed exercise program**

**A** | Back school is recommended to provide improvements in pain and function when compared with general medical care, modality care, or a simple handout at 6-12 months' follow-up for chronic low back pain.

### Grades of Recommendation:

- **A:** Good evidence (Level I studies with consistent findings) for or against recommending intervention.
- **B:** Fair evidence (Level II or III studies with consistent findings) for or against recommending intervention.
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# Management - Physical Therapy

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In patients undergoing treatment for low back pain, what is the effectiveness of the following in decreasing the duration of pain, decreasing intensity of pain, increasing functional outcomes and improving return to work status, as compared with natural history plus or minus medication:

a. Acute vs subacute vs chronic

vi. **McKenzie Exercise**

**C** | McKenzie method is an option for the treatment of chronic low back pain.

**I** | There is insufficient evidence that McKenzie method is better or worse than back school for chronic back pain.

### Grades of Recommendation:

- **A:** Good evidence (Level I studies with consistent findings) for or against recommending intervention.
- **B:** Fair evidence (Level II or III studies with consistent findings) for or against recommending intervention.
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# Management - Physical Therapy

## PM&R

In patients undergoing treatment for low back pain, what is the effectiveness of the following in decreasing the duration of pain, decreasing intensity of pain, increasing functional outcomes and improving return to work status, as compared with natural history plus or minus medication:

a. Acute vs subacute vs chronic

ii. Physical Agents

a. **heat, cold**

**B** | It is suggested that the use of heat for acute low back pain results in short-term improvements in pain.

### Grades of Recommendation:

- **A:** Good evidence (Level I studies with consistent findings) for or against recommending intervention.
- **B:** Fair evidence (Level II or III studies with consistent findings) for or against recommending intervention.
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# Management - Physical Therapy

## PM&R

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In patients undergoing treatment for low back pain, what is the effectiveness of the following in decreasing the duration of pain, decreasing intensity of pain, increasing functional outcomes and improving return to work status, as compared with natural history plus or minus medication:

a. Acute vs subacute vs chronic

ii. Physical Agents

d. traction

**A** | In patients with subacute or chronic low back pain, traction is not recommended to provide clinically significant improvements in pain or function.

### Grades of Recommendation:

- **A:** Good evidence (Level I studies with consistent findings) for or against recommending intervention.
- **B:** Fair evidence (Level II or III studies with consistent findings) for or against recommending intervention.
- **C:** Poor quality evidence (Level IV or V studies) for or against recommending intervention.
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# Management - Physical Therapy

North American  
Spine Society

Evidence-Based Clinical Guidelines  
for Multidisciplinary Spine Care

## PM&R

In patients undergoing treatment for low back pain, **what is the appropriate timing, frequency and duration of treatment with physical therapies?**

### Grades of Recommendation:

- **A:** Good evidence (Level I studies with consistent findings) for or against recommending intervention.
- **B:** Fair evidence (Level II or III studies with consistent findings) for or against recommending intervention.
- **C:** Poor quality evidence (Level IV or V studies) for or against recommending intervention.
- **I:** Insufficient or conflicting evidence not allowing a recommendation for or against intervention.

**No studies adequately address this question.**



# Management - Physical Therapy





# Management - Physical Therapy



# Management

## PM&R

In patients undergoing treatment for low back pain, what is the effectiveness of the following in decreasing the duration of pain, decreasing intensity of pain, increasing functional outcomes and improving return to work status, as compared with natural history plus or minus medication:

a. Acute vs subacute vs chronic

iii. **Acupuncture**

**A** | In patients with *chronic* low back pain, addition of acupuncture to usual care is recommended for short-term improvement of pain and function compared to usual care alone.

### Grades of Recommendation:

- **A:** Good evidence (Level I studies with consistent findings) for or against recommending intervention.
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# Management

## PM&R

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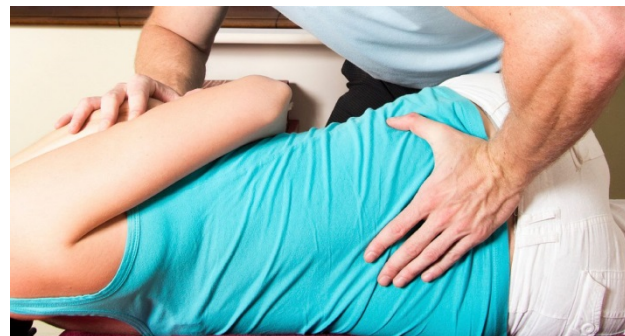
a. Acute vs subacute vs chronic

v. **Spinal Manipulation**

**C** | For patients with acute or chronic low back pain, spinal manipulative therapy (SMT) is an option to improve pain and function.

### Grades of Recommendation:

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In patients undergoing treatment for low back pain, what is the effectiveness of the following in decreasing the duration of pain, decreasing intensity of pain, increasing functional outcomes and improving return to work status, as compared with natural history plus or minus medication:

a. Acute vs subacute vs chronic

vii. **Yoga**

**B** | It is suggested that, for mild chronic low back pain, yoga may offer medium-term improvements in pain and function compared to usual care, although improvements are not clinically meaningful due to low baseline pain.

### Grades of Recommendation:

- **A:** Good evidence (Level I studies with consistent findings) for or against recommending intervention.
- **B:** Fair evidence (Level II or III studies with consistent findings) for or against recommending intervention.
- **C:** Poor quality evidence (Level IV or V studies) for or against recommending intervention.
- **I:** Insufficient or conflicting evidence not allowing a recommendation for or against intervention.



# Management

## PM&R

In patients undergoing treatment for low back pain, what is the effectiveness of the following in decreasing the duration of pain, decreasing intensity of pain, increasing functional outcomes and improving return to work status, as compared with natural history plus or minus medication:

a. Acute vs subacute vs chronic

### viii. Aerobic Exercise

**A** | Aerobic exercise is recommended to improve pain, disability, and mental health in patients with nonspecific low back pain at short-term follow-up.

**I** | There is insufficient evidence for long-term benefit

#### Grades of Recommendation:

- **A:** Good evidence (Level I studies with consistent findings) for or against recommending intervention.
- **B:** Fair evidence (Level II or III studies with consistent findings) for or against recommending intervention.
- **C:** Poor quality evidence (Level IV or V studies) for or against recommending intervention.
- **I:** Insufficient or conflicting evidence not allowing a recommendation for or against intervention.



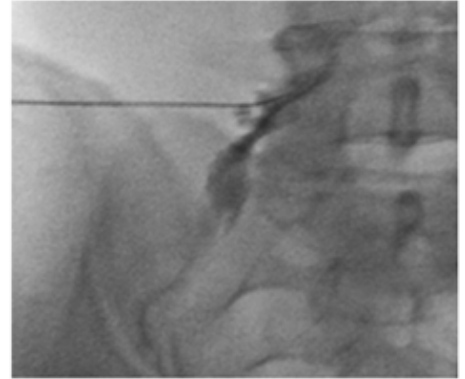
# Management



Physical Therapy



Medications



Interventions



# Management - Medications

## Medical Treatment

In patients with low back pain, is pharmacological treatment effective in decreasing duration of pain, decreasing intensity of pain, increasing functional outcomes of treatment and improving the rate of return-to-work?:

### a. NSAIDs

**B** | Non-selective NSAIDs are suggested for the treatment of low back pain.

#### Grades of Recommendation:

- **A:** Good evidence (Level I studies with consistent findings) for or against recommending intervention.
- **B:** Fair evidence (Level II or III studies with consistent findings) for or against recommending intervention.
- **C:** Poor quality evidence (Level IV or V studies) for or against recommending intervention.
- **I:** Insufficient or conflicting evidence not allowing a recommendation for or against intervention.

# Management - Medications

## Medical Treatment

In patients with low back pain, is pharmacological treatment effective in decreasing duration of pain, decreasing intensity of pain, increasing functional outcomes of treatment and improving the rate of return-to-work?:

b. Anticonvulsants

### Grades of Recommendation:

- **A:** Good evidence (Level I studies with consistent findings) for or against recommending intervention.
- **B:** Fair evidence (Level II or III studies with consistent findings) for or against recommending intervention.
- **C:** Poor quality evidence (Level IV or V studies) for or against recommending intervention.
- **I:** Insufficient or conflicting evidence not allowing a recommendation for or against intervention.

**| | There is insufficient evidence to make a recommendation for or against the use of anticonvulsants for the treatment of low back pain.**



# Management - Medications

## Medical Treatment

In patients with low back pain, is pharmacological treatment effective in decreasing duration of pain, decreasing intensity of pain, increasing functional outcomes of treatment and improving the rate of return-to-work?:

c. Antidepressants

### Grades of Recommendation:

- **A:** Good evidence (Level I studies with consistent findings) for or against recommending intervention.
- **B:** Fair evidence (Level II or III studies with consistent findings) for or against recommending intervention.
- **C:** Poor quality evidence (Level IV or V studies) for or against recommending intervention.
- **I:** Insufficient or conflicting evidence not allowing a recommendation for or against intervention.

**A** | Antidepressants are not recommended for the treatment of low back pain.

# Management - Medications

## Medical Treatment

In patients with low back pain, is pharmacological treatment effective in decreasing duration of pain, decreasing intensity of pain, increasing functional outcomes of treatment and improving the rate of return-to-work?:

### d. Oral Steroids

**B** | It is suggested that the use of oral or IV steroids is not effective for the treatment of low back pain.

#### Grades of Recommendation:

- **A:** Good evidence (Level I studies with consistent findings) for or against recommending intervention.
- **B:** Fair evidence (Level II or III studies with consistent findings) for or against recommending intervention.
- **C:** Poor quality evidence (Level IV or V studies) for or against recommending intervention.
- **I:** Insufficient or conflicting evidence not allowing a recommendation for or against intervention.

# Management - Medications

## Medical Treatment

In patients with low back pain, is pharmacological treatment effective in decreasing duration of pain, decreasing intensity of pain, increasing functional outcomes of treatment and improving the rate of return-to-work?:

e. Short-Term Opioids

**B** | It is suggested that the use of opioid pain medications should be cautiously limited and restricted to short duration for the treatment of low back pain.

### Grades of Recommendation:

- **A:** Good evidence (Level I studies with consistent findings) for or against recommending intervention.
- **B:** Fair evidence (Level II or III studies with consistent findings) for or against recommending intervention.
- **C:** Poor quality evidence (Level IV or V studies) for or against recommending intervention.
- **I:** Insufficient or conflicting evidence not allowing a recommendation for or against intervention.

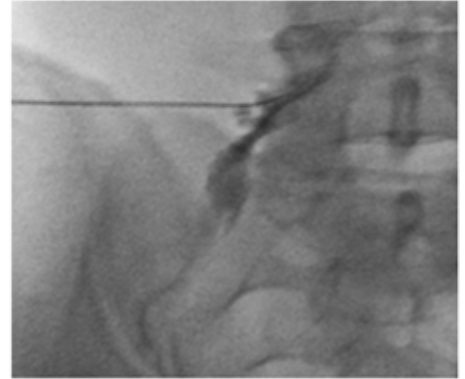
# Management



Physical Therapy



Medications



Interventions

# Management - Injections

- **Dry Needling**

- 2018 meta-analysis of RCTs reviewing the effectiveness of dry needling of myofascial trigger points (MTrPs) associated with low back pain
  - Moderate evidence showing that dry needling of MTrPs, especially if associated with other therapies, could be recommended to relieve the intensity of LBP; however, the clinical superiority of dry needling in improving functional disability and its follow-up effects still remained unclear.

# Management - Injections

- **Facet Joint Injections**

- 2015 systematic review of effectiveness of facet joint interventions to provide >6 months of relief for chronic spinal pain
  - Level III for lumbar intra-articular injections

# Management - Injections

- **Epidural Steroid Injections**

- Systemic review of 27 studies from 1966-2011 of effectiveness of transforaminal and interlaminar epidural steroid injections for:
  - Lumbar radiculitis (disc herniation): good evidence
  - Radiculitis (spinal stenosis): fair evidence

# Summary

- Low back pain is very common but can improve or resolve with proper care and treatment
- There are various causes of mechanical back pain
- Early imaging for non-specific LBP is not recommended
- Physical therapies are recommended to help with recovery from LBP





Thank You

UCSF

Questions?

