Unraveling the Mystery of Low Back Pain #1:

Sacroiliac Dysfunction

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Webinar Goal

Explore the assessment and treatment of one of the most common low back pain problems
Pretest

1. How many layers of sacroiliac ligaments are there?
   a) 5    b) 2    c) 3    d) more than 100

2. The most common referred pain pattern when the sacroiliac ligaments are injured is pain into the buttock and down the leg. True or false?

3. What are the two assessment tests that will most likely be painful with this condition?
   a) Forward flexion and side-flexion
   b) Forward flexion and extension
   c) Extension and side-flexion
   d) Forward flexion and rotation

4. Sciatica means that there is a compressed or pinched nerve in the low back that is causing pain down the leg. True or False?

5. Which puts more stress on the discs in the low back?
   a) standing   b) sitting   c) walking

Anatomy
Anatomy of the Low Back: Sacrum

- Keystone arch
- Intersection between trunk and pelvis
- Vulnerable area in human beings

Low Back Injuries

- Most commonly injured part of the body
- Most common low back injury: sacroiliac ligament sprains
Anatomy of the Sacroiliac Ligaments

• Three layers: posterior, interosseus, deep anterior

Anatomy of the Sacroiliac Ligaments

Posterior sacroiliac ligaments:
• Short (upper)
• Long (lower)
Anatomy of the Sacroiliac Ligaments

Posterior sacroiliac ligaments:
- Short (upper)
- Long (lower)

Referred Pain

Definition: Pain felt at a distance from its source.
Four Rules of Referred Pain

Rule #1. Pain refers distally.

Four Rules of Referred Pain

Rule #2. Pain does not cross the midline.
Four Rules of Referred Pain

Rule #3. Pain is referred within the dermatomes.

Rule #4. The distance the pain refers is directly proportional to the severity of the injury.
Assessment

FORMATION OF NORMAL SCAR TISSUE

Well-formed Scar Tissue
Test 1: Active flexion
Test 2: Active extension

Test 3: Side-flexion
Test 4: Hip flexion

Test 5: Medial rotation of the hip
Theory

Assessment Test Results for Sacroiliac Ligament Sprains

- Flexion and/or extension are generally painful
- Side-flexion is sometimes painful
- Hip flexion and medial rotation are not painful
The most common referred pain pattern for Sacroiliac Ligament injury

Referred Pain Patterns for the Sacroiliac Ligaments
Sciatica

Definition:
Pain down the thigh, or down the thigh, low leg, and foot
Four Typical Stories

1. Sudden onset, then no pain
2. Slow onset with increasing frequency of painful episodes
3. Excruciating pain, fixed in deviation, slowly diminishing over time.
4. Chronic pain, either mild or very severe that remains
Four Typical Stories

2. Slow onset with increasing frequency of painful episodes

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Four Typical Stories

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Differentiating Sacroiliac Ligament Injury from a Hip Injury

Test with the client’s fist under the back
Differentiating Sacroiliac Ligament Injury from a Hamstring Injury

Pain on Resisted flexion

Differentiating Sacroiliac Ligament Injury from Disc Injury

<table>
<thead>
<tr>
<th>Disc Injuries</th>
<th>Ligament Injuries</th>
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</thead>
<tbody>
<tr>
<td>2–5% of back injuries</td>
<td>90% of back injuries</td>
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<tr>
<td>Unilateral weakness at a specific nerve root level</td>
<td>General weakness in the legs due to disuse</td>
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<tr>
<td>May involve reflex changes at L3, L5, S1, and S2</td>
<td>Reflex changes very rare</td>
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<td>Referred pain within the dermatome that is more distal</td>
<td>Referred pain within the dermatome that is more proximal</td>
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<td>Asymmetrical pain limitation</td>
<td>Pain and limitation on articular movements</td>
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<td>No pain on palpation, unless ligaments are injured</td>
<td>Local and referred pain on ligament palpation</td>
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### Differentiating Sacroiliac Ligament Injury from Disc Injury

#### Disc Injuries
- 2–5% of back injuries
- Unilateral weakness at a specific nerve root level
- May involve reflex changes at L3, L5, S1, and S2
- Referred pain within the dermatome (distal)
- Asymmetrical pain limitation
- No pain on palpation, unless ligaments are injured

#### Ligament Injuries
- 90% of back injuries
- General weakness in the legs due to disuse
- Reflex changes very rare
- Referred pain within the dermatome (proximal)
- Pain and limitation on articular movements
- Local and referred pain on ligament palpation
Direct & Indirect Causes of Pain

Examples:
- Direct — ligament sprain
- Indirect — misalignment, chronic contraction, movement habits, etc.

*It is important to address both types of causes.*

Treatment
Friction Therapy

Watch the video at the end of the Webinar

Myofascial Therapy
Massage Therapy

Flexibility Exercises
Strength Exercises

Correct Movement Patterns
Referrals

- Alexander Technique or Feldenkrais practitioner
- AIS practitioner to increase flexibility and strength
- Stretched out ligaments = prolotherapy (Ongley Institute: www.theongleyinstitute.com)

Questions

Facebook.com/DrBenBenjamin
Post-test

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