

# THE BENJAMIN INSTITUTE PRESENTS

## Debilitating Orthopedic Injury Sampler #1

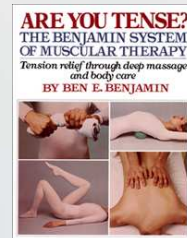
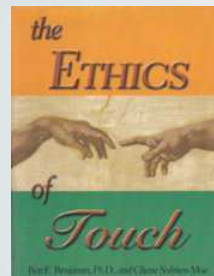
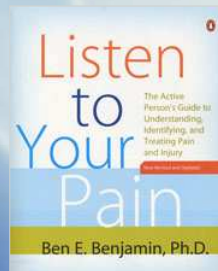
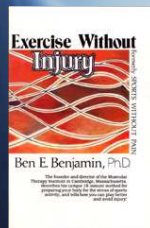


### Low Back: Sacroiliac Dysfunction

Presented by Dr. Ben Benjamin

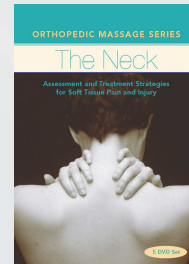
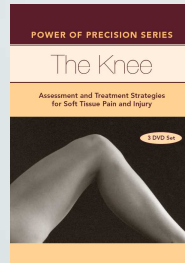
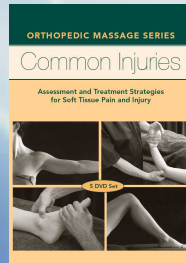
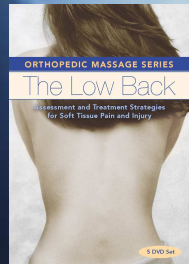
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## Instructor: Ben Benjamin, Ph.D.



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## Instructor: Ben Benjamin, Ph.D.



[drben@benbenjamin.com](mailto:drben@benbenjamin.com)

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# Thank You

## Webinar Goal

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

## Logistics

- Time: 1 hour
- Schedule:
  - Presentation 30–40 min
  - Questions 15–20 min
- Ongoing questions: Use Question box. If I don't get to your question, ask me on my Facebook page after the webinar.

[www.Facebook.com/BenjaminInstitute](http://www.Facebook.com/BenjaminInstitute)

## Questions to Keep in Mind

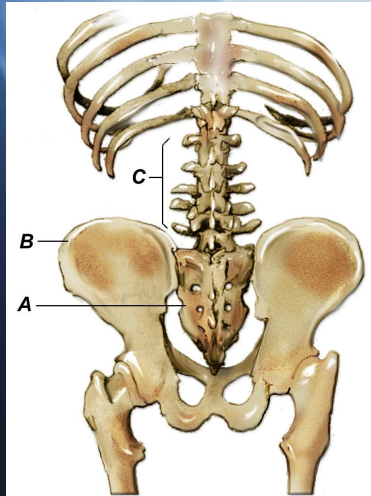
1. How many layers of sacroiliac ligaments are there?
2. What is the most common referred pain pattern when the sacroiliac ligaments are injured?
3. What are the two assessment tests that will most likely be painful with this condition?
4. What does sciatica really mean?
5. Which position puts more stress on the discs and ligaments in the low back?

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Anatomy

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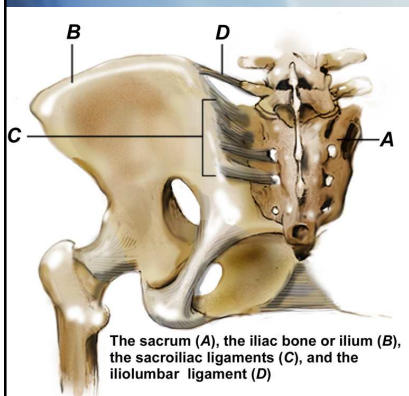
## Anatomy of the Low Back: Sacrum



The lower back showing the sacrum (A), the ilium (B), and the lower-back vertebrae (C)

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

## Low Back Injuries

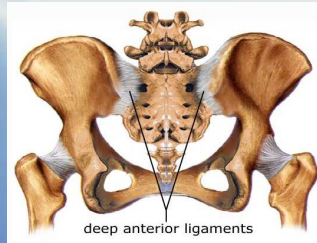
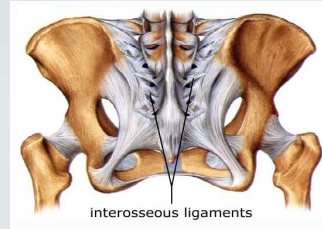
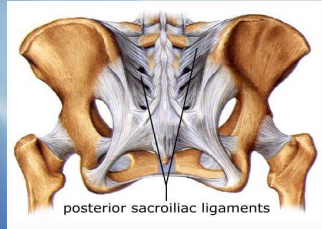


The sacrum (A), the iliac bone or ilium (B), the sacroiliac ligaments (C), and the iliolumbar ligament (D)

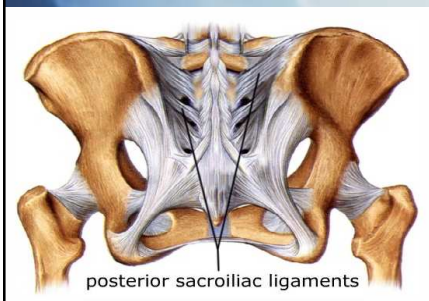
- Most commonly injured part of the body
- Most common low back injury: sacroiliac ligament sprains

## Anatomy of the Sacroiliac Ligaments

- Three layers: posterior, interosseus, deep anterior



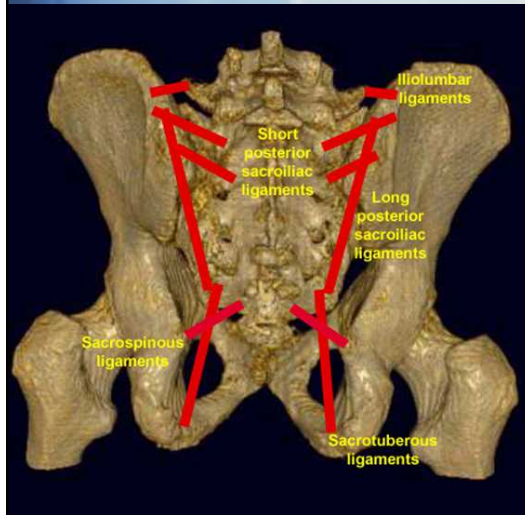
## Anatomy of the Sacroiliac Ligaments



Posterior sacroiliac ligaments:

- Short (upper)
- Long (lower)

## Anatomy of the Sacroiliac Ligaments



Posterior sacroiliac ligaments:

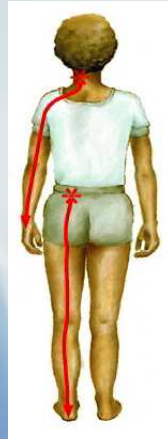
- Short (upper)
- Long (lower)

## 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

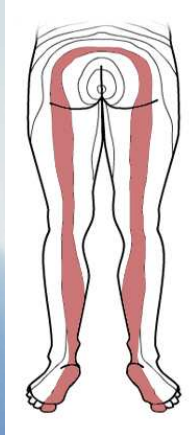
Rule #2. Pain does not cross the midline.





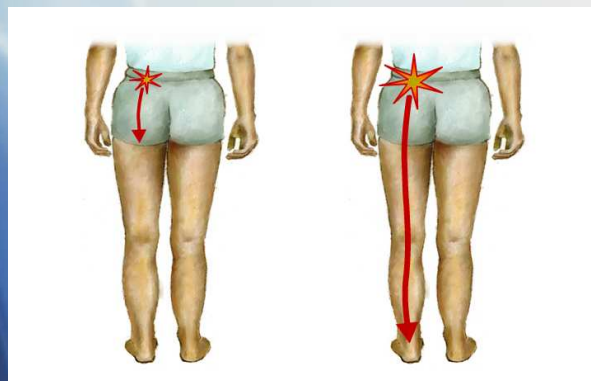
## Four Rules of Referred Pain

Rule #3. Pain is referred within the dermatomes.



## Four Rules of Referred Pain

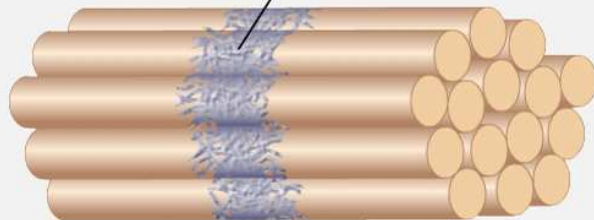
Rule #4. The distance the pain refers is directly proportional to the severity of the injury.



# Assessment

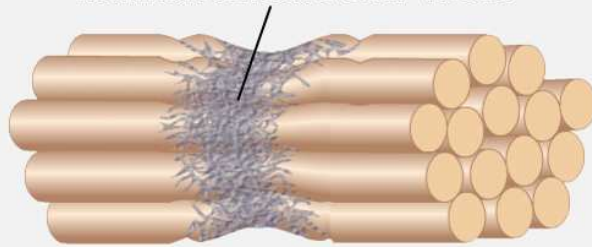
## FORMATION OF NORMAL SCAR TISSUE

Well-formed Scar Tissue

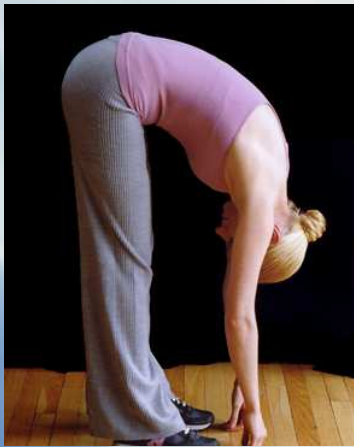


## FORMATION OF ADHESIVE SCAR TISSUE

Internal Adhesive 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



## Assessment Tests

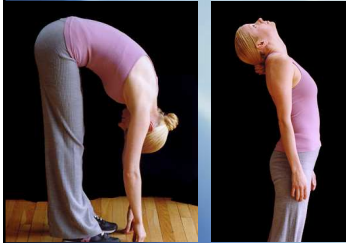
See the Video:

The video will be available on your webinar link along with the webinar recording.



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



## Sciatica



## 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

1. Sudden onset, then no pain

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## Four Typical Stories

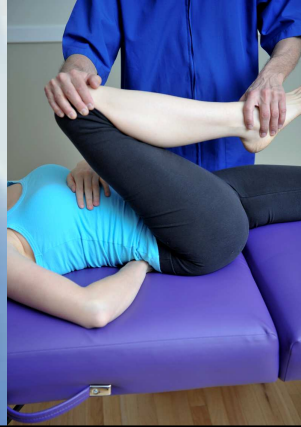
3. Excruciating pain, fixed in deviation, slowly diminishing over time.

## Four Typical Stories

4. Chronic pain, either mild or very severe that remains

## 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

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

## 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)
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No pain on palpation, unless ligaments are injured

## Differentiating Sacroiliac Ligament Injury from Disc Injury

### 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 of the Sacroiliac Ligaments



Watch the video from your Webinar Link

## Myofascial Therapy

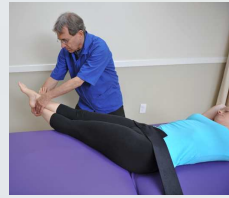
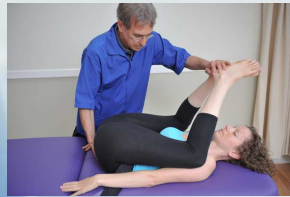
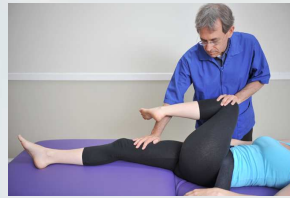
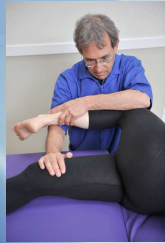


## Massage Therapy





## Flexibility Exercises



## Strength Exercises



## Correct Movement Patterns



Photo by Dede Hatch

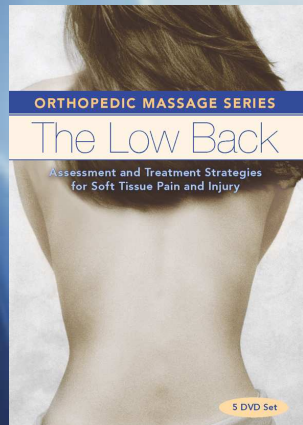
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## Referrals

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

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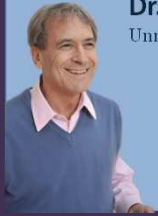
## Unraveling the Mystery of Low Back Pain

1. **Sacroiliac Dysfunction**
2. **Client History and Treatment Options**
3. **Iliolumbar Ligament Sprains**
4. **Sacrotuberous Ligament Sprains**
5. **Supraspinous Ligament Sprains**
6. **Muscle Injuries**
7. **Clinical Reasoning**

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### Dr. Ben Benjamin

Unraveling the Mystery Series:

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- Shoulder Pain
- Knee Pain
- Ankle Pain
- Hip & Thigh Pain



### Whitney Lowe

- Orthopedic Approaches to Upper Body Disorders
- Orthopedic Approaches to Lumbo-Pelvic Pain

### Carole Osborne

- Pregnancy Massage 101



### Tom Myers

- Anatomy Trains: Clinical Applications of Myofascial Meridians
- Beyond Good Posture: Fascial Release for Structural Balance



### Tracy Walton

- Massage in Cancer Care
- More about Cancer Care & Massage
- Cardiovascular Conditions & Massage

And Many More...

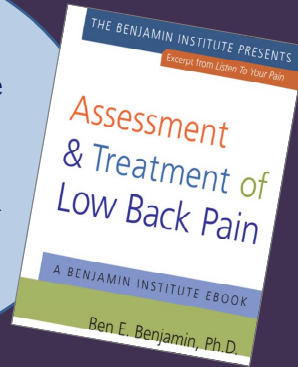
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## Questions

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