Unraveling the Mystery of Low Back Pain #3: Iliolumbar Ligament Sprains

Instructor: Ben Benjamin, Ph.D.

ben@benbenjamin.com
Webinar Goal

- Explore the assessment and treatment of the iliolumbar ligament, one of the most common low back injuries.
Pretest

1. Pain on the upper border of the iliac crest usually comes from a quadratus lumborum muscle strain. True or False?

2. Pain felt while bending the trunk to the side only is usually caused by strain to the sacrotuberous ligament or gluteus medius muscle. True or False?

3. Pain into the genital area can be caused by a strain of the iliolumbar ligament. True or False?

4. The iliolumbar ligament is attached to the L4 transverse process. True or False?

5. The iliolumbar ligament primarily stabilizes the pelvis in forward and backward movements. True or False?

Anatomy

Anatomy of the Iliolumbar Ligament

- Attaches the transverse process of the 5th lumbar vertebra (and occasionally the 4th) to the iliac crest
- Lower slip attaches to the anterior sacroiliac ligament
- Stabilizes the pelvis in side-bending
Anatomy of the Iliolumbar Ligament

- Beneath and blends into thoracolumbar fascia and part of quadratus lumborum
- Palpation alone is not reliable

Assessment

Test 1a: Side-flexion
Test 1b: Side-flexion in slight forward flexion

Test 1c: Side-flexion in slight extension

Test 2: Resisted side-flexion
Resisted testing: Ruling out muscles

- Muscular injury: pain on resisted testing
- Ligament injury: no pain on resisted testing

Test 3: Flexion

Test 4: Extension
Theory

Assessment Test Results for Iliolumbar Ligament Injuries

- Pain on side-flexion
- Sometimes pain on flexion and extension as well
- No pain on resisted side-flexion (unless the muscles are also injured)
- Local pain on palpation

Pain Patterns for Iliolumbar Ligament Injuries

Referred pain:
- Low back
- Buttock
- Lower abdomen
- Groin
- Upper lateral thigh
- Genitals
Pain Patterns for Iliolumbar Ligament Injuries

Both ligaments may be affected:

- Often caused by compensation patterns
- Leads to pain on both sides or straight across the back

Other ligaments may also be involved.

Causes of Iliolumbar Ligament Injuries

- Sudden trauma
- Routine activities that involve lifting and twisting

Treatment
Friction Therapy

Watch the video at the end of the Webinar

Myofascial Therapy

Massage Therapy
Therapeutic Exercises

- Place tension on the ligaments
- Prevent the adhesive scar tissue from re-forming
- Help the tissues to heal in the presence of movement
- Should not cause any pain or discomfort

Exercise #1: Sitting Forward Bends

Exercise #2: Standing Forward Bends
Exercise #3: Leg-Up Forward Bends

Active Isolated Stretching & Strengthening

Referrals

- Movement problems: Alexander Technique or Feldenkrais practitioner
- Limited flexibility or strength: AIS practitioner
- Stretched out ligaments: prolotherapy
  (Ongley Institute: www.theongleyinstitute.com)
Clinical Reasoning Question for you

If passive movements test for injuries to ligaments and joints

- And resisted testing primarily assesses injury to muscles and tendons

- Why are active tests not as useful?

- The answer is contained in the question.
Post-test

1. Pain on the upper border of the iliac crest usually comes from a quadratus lumborum muscle strain. True or False?

2. Pain felt while bending the trunk to the side only is usually caused by strain to the sacrotuberous ligament or gluteus medius muscle. True or False?

3. Pain into the genital area can be caused by a strain of the iliolumbar ligament. True or False?

4. The iliolumbar ligament is attached to the L4 transverse process. True or False?

5. The iliolumbar ligament primarily stabilizes the pelvis in forward and backward movements. True or False?