Unraveling the Mystery of Knee Pain #5:
Patellar Tendon Mechanism Injuries

Instructor: Ben Benjamin, Ph.D.
Webinar Goals

- Explore the assessment and treatment of patellar tendon injuries.

Logistics

- Time: 60 minutes
- Schedule:
  - Presentation 30-40 minutes
  - Questions 15–20 minutes
- Ongoing questions: Use Question box.
  If I don't get to your question, ask me on my Dr Ben Benjamin Facebook page after the webinar.
- Get a pen and paper please

Pretest

1. When assessing patellar tendon injuries, the history is more important than the results of the assessment tests. True or False?
2. The quadriceps expansion is located at the anterior and posterior patella. True or False?
3. The most commonly injured structure of the patellar tendon mechanism is at the inferior pole of the patella. True or False?
4. The most significant assessment test when looking at an injury to the patellar tendon is resisted flexion of the knee. True or False?
5. When the patellar tendon mechanism is injured all strenuous activity should stop until the tendon heals. True or False?
6. The patellar ligament actually functions as a tendon. True or False?
Anatomy

Patellar Tendon Mechanism

- Four quadriceps muscles converge to form patellar tendon
- Tendon envelops patella in an aponeurosis
- Attaches to the tuberosity of the tibia
- Functions as a tendon, but is officially called a ligament

Patellar Tendon Mechanism

- Quadriceps expansions are frequently injured and often missed as a cause of pain
Patellar Tendon Mechanism

- The patella retinaculum reinforce and support the tendon structure and are rarely injured.

Most frequently injured segments
Palpation

*Suprapatella Tendon*  *Infracella tendon*

![Images of palpation techniques for Suprapatella Tendon and Infracella tendon.]

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Assessment

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Palpation

*Quadriiceps Expansion*

*Lateral*  *Medial*

![Images of palpation techniques for Lateral and Medial aspect of Quadriiceps Expansion.]

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Resisted Extension of the Knee

Palpation

Suprapatella  Infrapatella  Tendon Body

Lateral and Medial Quadriceps Expansion

Theory
Theory

- Resisted Extension is painful

Keep Exercising

Other Signs of this Injury
Friction Therapy

- Inferior to the patella

Friction Therapy

- Superior to the patella

Friction Therapy

- Quadriceps expansion

Medial  Lateral
Getting at the Indirect Causes:
Checking Flexibility

Hamstrings  Quadriceps  Psoas

Getting at the Indirect Causes:
Checking Strength

Hamstring  Quadriceps  Psoas

Active Isolated
Stretching and Strengthening

Hamstrings  Quadriceps  Psoas
Active Isolated Stretching and Strengthening

Questions

Facebook.com/DrBenBenjamin

Post-test

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