

Adductor Tendinopathy

It is estimated that between 10 and 18% of all injuries worldwide among male soccer players yearly involve groin pain (Engebretsen et al. 2010; Topol, Reeves, and Hassanein 2005). If pain and injury persist, macro- and microscopic tendon changes result in weakening of the tendon and its insertional site (Valent et al. 2012), leading to chronic inflammation. Diagnosis of adductor tendinopathy is often difficult because of the many potential sources of groin pain and the multitude of tissue structures that influence the function of the adductor muscles (Engebretsen et al. 2010). Treatment can also be difficult because of the continued stress and irritation resulting from ongoing athletic activity as well as during activities of daily living. The primary intrinsic risk factors for groin injury have been identified as previous injury and weak hip adductors (Engebretsen et al. 2010; Valent et al. 2012), which may assist in the treatment of persistent adductor tendinopathy. Extrinsic risk factors such as training error, improper footwear, and an irregular playing surface may also be modifiable to aid in the prevention and treatment of adductor groin injury (Valent et al. 2012).

Common Signs and Symptoms

- Pain in the groin, the lower abdomen, or both, particularly at the pubic tubercles
- Pain with stretching of the adductors
- Sharp pain with sprinting, kicking, explosive cutting, and rotating
- Point tenderness over the tendon and its insertion
- Weak groin and abdominal musculature
- Pain with active hip adduction

Common Differential Diagnoses

- Pelvic stress fracture
- Femoral neck stress fracture
- Athletic pubalgia
- Osteitis pubis
- Tendon avulsion
- Symphysis nonunion
- Rectus abdominis tear
- Sports hernia
- Lumbosacral pathology
- Calcific tendinitis
- Facet joint disease
- Lateral hip bursitis

Treatment Points and Sequencing

1. Adductor group
2. Lower abdominis
3. Adductor longus (superior pubis)
4. Adductor magnus (inferior pubis)
5. Sacroiliac joint
6. Quadratus lumborum
7. Gluteus medius
8. Iliopsoas
9. Pes anserine
10. Iliotibial tract
11. Popliteus

- Iliopsoas pathology
- Compression neuropathies

Clinician Therapeutic Interventions

- Confirm the diagnosis with magnetic resonance imaging (MRI). Focal intense marrow edema at the tendon's attachments is often observed with this condition.
- Assess the biomechanics of the patient, particularly load and function at the sacroiliac joints because of their impact on the hip adductors.
- Implement a progressive hip and core strengthening program, particularly for the adductor and abdominal musculature.
- Consider use of aquatic therapy early to facilitate pain-free functional movement and strengthening.
- Use positional release, therapeutic thermal ultrasound, laser, and prolotherapy, as well as other modalities, to help move the tendon out of its chronic inflammatory stage.

Patient Self-Treatment Interventions

- Perform self-release of the adductor group daily.
- Avoid sport activities and ADLs that irritate the tendon until functional strength has been regained.
- Apply thermal modalities to the tendon and its insertion site, if available, to promote blood flow and tissue elasticity. Do not use electric heating pads because of the proximity of the tissue to the genitals.
- Perform nonpainful PNF stretching after physical activity.
- Use a groin wrap or spica cast to limit abduction and provide comfort.