


## Athlete's knee overuse *Pes Anserinus tendinopathy*

**5<sup>th</sup> Advanced Course on Knee Surgery**  
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## PES ANSERINUS tendinopathy

### An UNCOMMON source of knee pain

The knee is frequently injured in athletics because of both direct and indirect trauma. **Uncommon sources of knee pain in the athletic individual** include popliteus tendinitis, **semimembranosus tendinitis**, **pes anserine bursitis**, tibial collateral ligament bursitis, iliotibial band syndrome, fabella syndrome, Hoffa's disease, proximal tibiofibular joint instability, and saphenous nerve entrapment. These uncommon entities are becoming more common and more commonly recognized as our population ages and as recreational sports continue to become more popular. It is these uncommon entities that will be the subject of discussion of this article. The purpose of this article is to remind the health care provider who sees an athlete with knee pain of these other possible entities that may be causing their symptoms

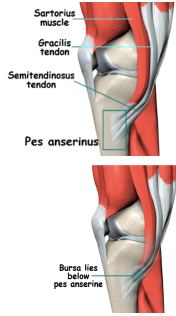
## Anatomy

The PES ANSERINUS is the common tibial insertion of :

- Sartorius distal insertion
- Gracilis distal tendon
- Semitendinosus distal tendon

Because of the shape it is named Goose foot

There is a small bursa at the deep part of this three tendons between tendon and bone




## Why does it happen ?

### Especially in runners

Repetitive sliding against the bone which leads to bursa inflammation

Associated with:

- Improper training
- sudden increases in distance run
- running up hills
- Genu valgum
- Flat-foot position
- Direct trauma
- Arthritis of the knee joint





## Diagnosis

### Clinical examination

Direct palpation pain at the intern part of the knee  
Resisted flexion of the knee could produce the pain  
Assess hamstring tightness

Standart X-ray :

+/- Usonography, MRI

## BUT ...

### Few (almost no) publications

**<sup>1</sup> Semimembranosus tendinitis: An overlooked cause of medial knee pain**

J. MICHAEL RAY, MD, WILLIAM G. CLANCY, JR.,\* MD, AND RICHARD A. LEMON, MD

### Differential diagnosis

From skin to bone

Medial meniscus (trauma ?)  
 Medial collateral ligament  
 Cyst  
 Stress fracture  
 Arthritis  
 Previous surgery

### Differential diagnosis

Arthro-synovial kyste from BiobSORbable screw

### Treatment options

reduce the strain on the injured tissues

Stopping the activity that brings on the symptoms  
 Relative rest : modify patient activities, avoid stairs, climbing, or other irritating activities.  
 Ice and antiinflammatory medications  
 NSAIDs  
 Iontophoresis  
**Improving flexibility** is a key part of the prevention and treatment :

- Hamstring stretching (self program)
- Quadriceps strengthening
- *Closed kinetic chain* (CKC) exercise program : single-knee dips, squats and leg presses
- Resisted leg-pulls using elastic tubing

### Diagnosis

Clinical examination Hamstring THIGHTNESS

Christopher S. Ahmad,\* MD, Lauren H. Redley,\*\* MD, Michael G. Ciccotti,† MD, Nicola Maffulli,§ MD, Umile Giuseppe Longo,¶ MD, and James Bradley,\* MD

Prevention program with STRETCHING

### Stretching and exercises

Self stretching exercises

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**Return to play process for hamstring injuries**

**Medical management of hamstring injuries: Funky, fickle and futile?**

**Risk factors for hamstring injuries: A current view of the literature**

**Hamstring Injuries**

- Hamstring injuries to...
- Which direction to p...
- Preventing hamstring...
- Clinical and imaging...
- Hamstring are stag...
- Intervention: Valeri...
- Return to play pro...
- Medical management of hamstring injuries: Funky, fickle and futile?
- Risk factors for hamstring injuries: A current view of the literature

**Hamstring Injuries**

Val Adams is the most successful state police officer who is applying to compete

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**Treatment options**

**If not effective ...**


Maybe it is the wrong diagnosis ...  
Lidocaïn injection in the bursa : does it negative the tests (painfull) ? Steroid local injection

Surgery ??? : always possible to do surgery but not indicated !

**Clinical case**


**16 year old gentleman**

Pains by skating  
Since years... progressive onset  
Stop if he stops training  
... back if he goes back to skate  
Pain after 15 minutes and resolve in 3-5 days  
Snapping by resisted knee flexion or knee extension



**Clinical case**

X-rays : exostosis of proximal tibial  
Lidocaine injection after skating ... relief of pain  
Ultrasonography : mecanical conflict +++  
After 2 years ... underwent the surgery for exostosectomy



**Open to your advices ...**

Topic widely open to discussion...

**Thank you  
Merci**

