**Pes Anserinus Bursitis**

**INTRODUCTION**
You have been diagnosed with pes anserinus bursitis. This is an inflammation of the cushioning tissue in and around the insertion of the conjoined tendons of the pes anserinus at the medial side of the knee, typically due to a mechanical irritation and often coexists with other knee disorders. Most patients improve with rest and non-steroidal anti-inflammatory drugs. Physical therapy is often beneficial. Injection with cortisone may be helpful. Surgical intervention is required only rarely.

**BACKGROUND**
Of the more than 150 bursae in the body, at least 12 bursae are found in each knee, including the suprapatellar, prepatellar, infrapatellar, gastrocnemius, semimembranosus, sartorius and anserine bursae, the No-Name-No-Fame bursa (located at the anterior border of the MCL), and 3 lateral knee bursae located adjacent to the fibular collateral ligament and popliteus tendon laterally.

Pes anserinus is the anatomic term used to identify the insertion of the conjoined tendons into the anteromedial proximal tibia. From anterior to posterior, pes anserinus is made up of the tendons of the sartorius, gracilis, and semitendinosus muscles. The term literally means "goose’s foot," describing the webbed footlike structure. The conjoined tendon lies superficial to the tibial insertion of the medial collateral ligament (MCL) of the knee. The muscles of the pes anserinus (ie, sartorius, gracilis, semitendinosus) are each supplied by different lower extremity nerves (ie, femoral, obturator, tibial, respectively). The sartorius, gracilis, and semitendinosus muscles are primary flexors of the knee. These 3 muscles also influence internal rotation of the tibia and protect the knee against rotary and valgus stress.

Pes anserine bursitis is an inflammatory condition of the medial knee, especially common in certain patient populations, often coexisting with other knee disorders. Theoretically, bursitis results from stress to this area (eg, stress may result when an obese individual with anatomic deformity from arthritis ascends or descends stairs). Pathological studies do not indicate whether symptoms are attributable predominantly to true bursitis, tendonitis, or fasciitis at this site. Furthermore, panniculitis at this location has been described in obese individuals. Pes anserine bursitis is most common in young individuals involved in sporting activities and obese middle-aged women. This condition also is common in patients aged 50-80 years who suffer from osteoarthritis of the knees.
CLINICAL PRESENTATION AND DIAGNOSIS
Pes anserine bursitis can result from acute trauma to the medial knee, athletic overuse, or chronic mechanical and degenerative processes. An occurrence of pes anserine bursitis commonly is characterized by pain, tenderness, and local swelling. The hallmark clinical finding is pain over the proximal medial tibia, at the insertion of the conjoined tendons of the pes anserinus, approximately 2-5 cm below the anteromedial joint margin of the knee. If the diagnosis is unclear MRI is the preferred imaging technique.

TREATMENT
Rest and non-steroidal anti-inflammatory drugs (NSAIDs) are first-line treatment. Physical therapy is beneficial and often is indicated for patients with pes anserine bursitis. Tight hamstrings and hip adductors, seem to be the biggest problems and effective stretching will often lead to resolution of the knee pain. Foot orthotics in the shoes may help to improve varus and valgus alignment at the knee. If there is varus alignment or bowing at the knee, an orthotic with a lateral buildup may help to reduce stresses on the medial knee ligaments. If there is valgus alignment or knock-knees, an orthotic with arch support and medial buildup at the heel may help to reduce the demands on the muscles of the pes anserinus. Injection with anesthetic with or without corticosteroid may be helpful. Aspiration of the bursa usually is not required. Surgical intervention is required only rarely.

EXPECTED OUTCOME AND COMPLICATIONS
Medical literature continues to report under-recognition of this disorder as a cause for medial knee pain in various groups of patients.

MORE INFORMATION
Further information can be obtained on the internet. Your local public library can help you explore these sources if you are interested. Two good sites for expert and peer reviewed information are the American Academy of Orthopedic Surgeons at www.aaos.org and www.emedicine.com.

FEEDBACK
If you have questions or comments, please contact the office or submit them to the web site at www.pedortho.com.