### Frederick F. Buechel, Jr. MD Robotic Joint Center™

737 Park Avenue, Suite 1C New York, New York 10021 Office: 212-308-3089 Info@RoboticlointCenter.com



# **PES ANSERINE BURSITIS / TENDONITIS**

- The Sartorius, Gracilis, and Semitendinosus are three muscles act to bend the knee, bring the knees together, and cross the knees.
- The Tendons of these three muscles (pes anserine) attach to the shin bone (tibia) over a bursa at the inside of the knee.
- A bursa is a fluid filled sac that acts as a cushion between tendons, bones, and skin.
- Pes anserine bursitis is an irritation or inflammation of this bursa located on the inner side of the knee just below the knee joint.

#### WHAT ARE THE SYMPTOMS?

- Pain and tenderness on the inside of your knee, approximately 2 to 3 inches below the joint, are symptoms of pes anserine bursitis of the knee.
- Pain increasing with exercise or climbing stairs
- Symptoms of pes anserine bursitis may mimic those of a stress fracture

#### HOW DOES IT OCCUR?

- Bursitis, an inflammation of a bursa, usually develops as the result of overuse or chronic irritation
- Pes anserine bursitis is common in swimmers who do the breaststroke and is sometimes called breaststroker's knee.
- Pes anserine bursitis is common in athletes, particularly runners and with sudden distance changes
- Kicking a ball repeatedly
- Neglecting to stretch before activities
- Increased incidence seen with osteoarthritis, obesity, tight hamstrings

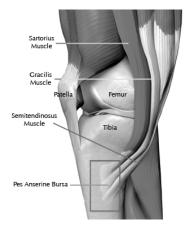
#### HOW IS IT DIAGNOSED?

- The diagnosis of pes anserine bursitis begins with a history and physical examination.
- The exam will test the tenderness over the pes bursa
- X-rays will most likely be ordered to make sure that there are no other abnormalities in the knee.
- MRI can show inflammation of the bursa and other causes of knee pain

#### HOW IS IT TREATED?

Treatment begins non-surgically and may include the following:

- Rest
- Ice (Cold Therapy) on your inner knee 3-4 times every day for 20 minutes
- Anti-inflammatory Treatments
- Physical Therapy for stretching & strengthening of the hamstrings, adductors, quadriceps
- Corticosteroid injection into the bursa to reduce the pain and swelling
- Platelet Rich Plasma taken from you blood to stimulate the natural healing response
- Stem Cell Injections



## Pes Anserine Bursitis - Rehabilitation Program

- You can stretch your leg right away by doing exercises 1 3.
- Start strengthening your leg with exercises 4-6.

**1. HAMSTRING STRETCH** - Lie on your back with your buttocks close to a doorway, and extend your legs straight out in front of you. Raise your injured leg and rest it against the wall next to the door frame. Hold this position for 30 to 60 seconds, feeling a stretch in the back of your thigh. Repeat three times.

**2. STANDING CALF STRETCH** - Facing a wall, put your hands against the wall at about eye level. Keep the uninjured leg forward and your injured leg back about 12-18 inches behind your uninjured leg. Keep your injured leg straight and your heel on the floor. Next, do a slight lunge by bending the knee of the forward leg. Lean into the wall until you feel a stretch in your calf muscle. Hold this position for 30-60 seconds, and repeat 3 times.

**3. QUADRICEPS STRETCH** - Stand sideways to a wall, about an arm's length away from the wall, with your injured leg towards the outside. Facing straight ahead, keep the hand nearest the wall against the wall for support. With your other hand, grasp the ankle of your injured leg and pull your heel up toward your buttocks. Do not arch or twist your back. Hold this position for 30 seconds. Repeat three times.

**4. HIP ADDUCTOR STRETCH** - Lie on your back, bend your knees, and put your feet flat on the floor. Gently spread your knees apart, stretching the muscles on the inside of your thigh. Hold this for 20 seconds. Repeat 3 times.

**5. OBLIQUE QUADRICEPS ISOMETRICS** - Sit on the floor with your injured leg straight in front of you. Press the back of your knee down while tightening the muscles on the top of your thigh. Concentrate on tightening the muscles on the inner side of your kneecap. Hold this position for 5 seconds. Repeat 20 times.

**6. HAMSTRING ISOMETRICS** - Sitting on the floor with the injured leg slightly bent, dig the heel of your injured leg into the floor and tighten up the back of your thigh muscles. Hold this position for 5 seconds. Repeat 20 times.

HAMSTRING STRETCH





QUADRICEPS STRETCH



HIP ADDUCTOR STRETCH



OBLIQUE QUADRICEPS



HAMSTRING ISOMETRICS