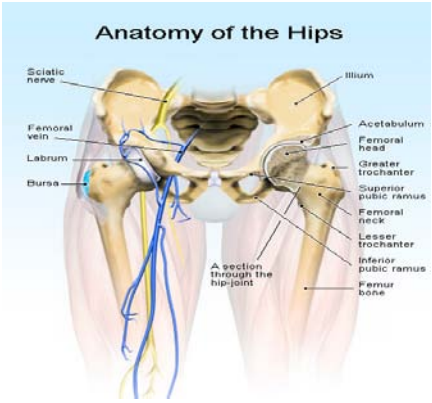
South Shore Hospital

Orthopedic, Spine and Sports Therapy

Hip Bursitis/Tendinitis

Anatomy and Biomechanics

The hip is a ball and socket joint that occurs between the head of the femur (ball) and the acetabulum of the pelvis (socket). It is protected by several layers of muscles and ligaments that provide support for the joint during weight bearing activity and movement. The hip incurs a lot of force during weight bearing activity and is prone to being overworked. With repetitive, stressful activity supporting structures like tendons and bursa can get irritated.



A bursa is a fluid filled sac that provides cushioning between a piece of bone and the soft tissue that lies over top of it. The bursa serves to reduce friction as the soft tissue (muscle, tendon, etc) slides over top of the bone. When the soft tissue is overly taught across the bone the bursa is compressed causing it to become irritated and inflamed. This irritation is known as bursitis. There are several bursa about the hip that can become irritated. The most common source of irritation is the bursa around the greater trochanter on the outside of the hip.

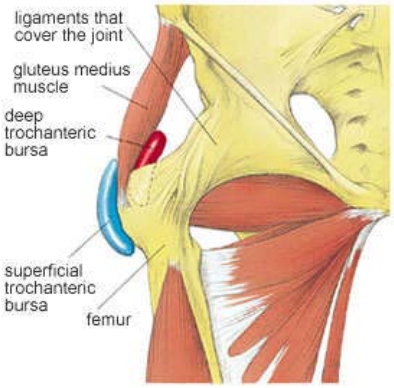
A tendon is the area of a muscle where it attaches to a bone. When a muscle is continually overused or is generally too weak or too tight its tendon can become irritated. The stress that is put through the muscle is greater than it can bare and so the tendinous attachment point incurs a tremendous amount of force. Over time this repetitive stress and tension results in the fibers of the tendon becoming irritated and inflamed. Some of the more common areas of tendinitis in the hip are the hip flexors, hamstring and hip abductors.

Treatment Option

Recommendations for the treatment of overuse conditions like bursitis and tendinitis always begin with relative rest. Regardless of the specific mechanism (alignment, weakness, etc) causing pain, the physician and/or physical therapist will likely recommend that the patient refrain from participation in the activities that most provide stress to injured joint. This does not always mean that the patient must stop all exercise. The patient should consult with the physician and/or physical therapist to determine individualized exercise guidelines and restrictions. When relative rest is not sufficient in improving symptoms the physician may recommend the use of anti-inflammatory medication (either taken orally or injected into the local site of inflammation).

Rehabilitation Philosophy

Physical therapy is often recommended for treatment of pain and dysfunction associated with the hip bursitis and tendinitis.
The physical therapist will evaluate the patient's mobility, flexibility and strength with the purpose of determining the underlying cause of the abnormal stress on the hip. The patient will be counseled on which activities he or she can safely continue and which should be avoided. The physical therapist will teach the patient the proper exercises to reduce stress on the hip. In most cases this will include strengthening muscles about the hip and knee that are weak and stretching ones that are tight.



Rehabilitation

****The following is an outlined progression for rehab. Advancement from phase to phase as well as specific exercises performed should be based on each individual patient's case and sound clinical judgment by the rehab professional. ****

Phase 1 (Acute Phase)

Goals

Control pain and inflammation
Begin pain free flexibility exercises
Establish pain free hip ROM

Recommended Exercises

Range of motion and flexibility

- Lower extremity stretching (based on individual assessment)
  - Gluteus maximus
  - IT Band/ Tensor Fascia Latia (TFL)
  - Hamstring
  - Hip Rotators
  - Iliopsoas
  - Piriformis

Guidelines

Perform range of motion exercises daily. Do 2-3 sets of 15-20 Reps. Perform stretching program daily. Hold stretches for 30 seconds and perform 2-3 repetitions of each.

Phase 2 (Sub-acute Phase A)

Goals

Continued protection of injured joint
Continue to improve flexibility
Begin to strengthen areas of weakness/instability

Recommended Exercises

Range of Motion and Flexibility

- Cycle (slow progression of resistance)
- Continue flexibility from Phase 1

Strength

- Begin open chain strengthening (based on strength assessment)
  - Bridging
  - Clamshells
  - Quadraped positional exercises
  - Straight leg raise (SLR)
  - Hip abduction

Hip extensors
Hip external rotators
SLS (single leg stance) drills

Guidelines

Perform stretching program daily. Hold stretches for 30 seconds and perform 2-3 repetitions of each.
Cardio program should be performed no more that 3-5 times a week for 20-35 minutes.
Perform strengthening exercises daily. Do 2-3 sets of 15-20 Reps.

Phase 3 (Sub-acute Phase B)

Goals

Continue to avoid exacerbation of symptoms
Continue to maximize return of strength and flexibility
Establish closed chain strength and stability

Recommended Exercises

Range of Motion and Flexibility

Continue cycle, add walking
Continue lower extremity stretching from Phase 1 and 2

Strengthening

Continue progression of open chain program with ankle weights
Can add gym equipment (Leg Press, Multi-Hip, Post Depression)
Pain free closed chain hip strengthening
Step Ups (frontal and Lateral)
Continued progression with SLS activities

Guidelines

Perform stretching program daily. Hold stretches for 30 seconds and perform 2-3 repetitions of each.
Cardio program should be performed no more that 3-5 times a week for 20-45 minutes.
Perform strengthening exercises 3 times a week. Do 2-3 sets of 15-20 Reps.

Phase 4 (Return to sport/Activity Phase)

Goals

Continue to avoid hip bursae overload
Progress with single leg strengthening
Achieve adequate strength and flexibility to return to activity

Recommended Exercises

Flexibility

Continue daily stretching

Cardio

Continue cycle, walking

Return to running progression (outlined by physician or physical therapist)

Strengthening

Continue SLR program and gym equipment progression

Static lunge/Split-Squat

Lateral lunge

Progressive single leg strengthening (single leg squat, single leg dead lift, single leg ER)

Return to Sport

Work with physician or physical therapist to outline progressive return to sport

Guidelines

Perform stretching program daily. Hold stretches for 30 seconds and perform 2-3 repetitions of each.
Cardio program should be progressed in preparation for return to sport.
Perform strengthening exercises 3 times a week. Do 2-3 sets of 15-20 Reps

Phase	Emphasis	Recommended Exercises	Guidelines
Phase 1 Acute Phase	*Control pain and inflammation *Re-establish normal ROM *Establish quadriceps activation *Begin pain free Flexibility program	**ROM and Flexibility** Cycle (if pain free motion) Pain free hip or knee active range of motion exercises (based on proximal or distal involvement) Lower Extremity Stretching • Rectus Femoris/Illiopsoas • IT Band/Tensor Fascia Latia (TFL) • Hamstring • Hip Rotators • Gluteus maximus *based on individual assessment	*ROM daily 2-3 sets of 15-20 reps *Stretching program daily 2-3 repetitions of 30 seconds
Phase 2 Sub-acute Phase A	* Continued protection of injured joint *Continue to improve flexibility *Begin to strengthen areas of Weakness/instability	**ROM and Flexibility** Cycle (slow progression of resistance) Continue flexibility from Phase 1 **Strength** Begin open chain strengthening • Bridging • Clamshells • Straight leg raise • Hip abduction • Hip extensors • Hip external rotators • Single leg stance (SLS) drills *based on individual assessment	* Stretching program daily 2-3 repetitions of 30 seconds *Cardio program should be performed no more that 3-5 times a week for 20-35 minutes. *Perform strengthening exercises daily 2-3 sets of 15-20 Reps
Phase 3 Sub-acute Phase B	* Continue to avoid exacerbation of symptoms *Continue to maximize return of strength and flexibility *Establish closed chain strength and stability	**Flexibilty** Continue lower extremity stretching from Phase 1 and 2 **Cardio** Cycle with Progressive Resistance Walking/elliptical (if pain free) **Strengthening** Continue OKC progression Can add gym equipment (Leg press, Multi-hip) Pain free closed chain hip strengthening (Step-up progression, static/dynamic lunge progression, etc) Continued progression with SLS and proprioceptive drills (add foam, balance disc, etc.) Progressive core stability (plank/side plank progressions, etc.) *based on individual assessment	* Stretching program daily 2-3 repetitions of 30 seconds *Continue to stress proper gait * Cardio program should be performed no more that 3-5 times a week for 20-45 minutes. *Perform strengthening exercises 3 times a week 2-3 sets of 15-20 Reps.

Phase 4 Sport Specific Phase	* Continue to avoid ITB overload *Progress with single leg strengthening *Achieve adequate strength and flexibility to return to activity	**Flexibility** Continue Daily Stretching **Cardio** Cycle, elliptical, walking Begin Return to Running Progression **Strengthening** Continue OKC Program Continue Gym Equipment Progression Continue Step-Up Progressions (Step-up progression, static/dynamic lunge progression, etc) Progressive Single Leg Strengthening (single leg squat, single leg dead lift) Plyometric Program: outlined by physical therapist based on activity/sport **Return to Sport** Outlined by PT or MD *based on individual assessment	* Stretching program daily 2-3 repetitions of 30 seconds *Cardio program should be progressed in preparation for return to sport. *Perform strengthening exercises 3 times a week. Do 2-3 sets of 15-20 Reps

***Reviewed by Michael Geary, MD**