## **OSTEITIS PUBIS**

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#### Description

Osteitis pubis is an overuse injury at the front of the pelvis at the symphysis pubis joint. The symphysis pubis joint joins two of the main bones of the pelvis and is made up of the pubic bones (portion of the pelvis), cartilage, a joint capsule, and joint fluid. The ends of the pubic bones resorb, a slow dissolving process. The cause is unclear, but it may be a reaction to stress or a stress fracture of the end of the pelvic bones (the pubis symphysis).

#### Common Signs and Symptoms

- Pain, discomfort or ache, tenderness, and swelling at the front of the pelvis at the pubic symphysis
- Pain possibly extending to the groin, inner thigh, or lower belly
- Symptoms that start slowly and insidiously following the activity and progress to affect the whole activity, becoming constant pain
- Pain that is worsened with pivoting on one leg, kicking a ball, sprinting, jumping, climbing stairs, or suddenly changing direction while running; also pain that is worse with stretching, particularly separating the legs and thighs or with bringing the thighs and legs together against resistance
- Walking or running with a limp
- Weakness when bending the hip or kicking
- Occasionally, clicking in the front of the pelvis
- Possibly, no symptoms

#### Causes

The cause of osteitis pubis is unclear, but it is believed to be due to excessive or repeated stress to the pubic symphysis with vigorous activities or to repeated tension from muscles that attach to the area.

#### Risk Increases With

- Sports that require repetitive kicking, such as soccer or football kicking, and sports that require repetitive jumping; also commonly seen in distance runners, fencers, ice hockey players, and weightlifters
- Poor physical conditioning (strength and flexibility)
- Previous osteitis pubis
- Previous sprain or injury to the pelvis
- Stiffness or loss of motion of the hip
- · Previous hip injury
- Ankylosing spondylitis
- Bladder or prostate surgery

#### ■ ■ ■ Preventive Measures

- Avoid trauma to the hip.
- Maintain appropriate conditioning:
  - Cardiovascular fitness
  - Pelvis and hip strength
  - Endurance and flexibility
- Use proper technique.

#### Expected Outcome

This condition is curable by avoiding the exacerbating activity. Continued activity results in persistent pain and disability. It may take 3 to 8 months or more to return to sports.

#### ■ ■ Possible Complications

- Recurrent symptoms, especially if athlete resumes activity too soon
- Prolonged healing time if usual activities are resumed too soon
- Chronic pain and inflammation of the pubic symphysis
- Unstable or arthritic joint following continued injury or delayed treatment

#### ■ ■ General Treatment Considerations

If there are no symptoms, no treatment is necessary. Initial treatment consists of medications and ice to relieve pain and reduce inflammation. Modify the activities that initially caused the problem by eliminating those activities or substituting them with other activities that do not cause symptoms. Stretching and strengthening exercises of the hip muscles are important. These can be carried out at home, although referral to an athletic trainer or physical therapist for further evaluation and treatment may be helpful. Cortisone, by injection or by pills,



From Nicholas JA, Hershman EB: The Lower Extremity and Spine in Sports Medicine. St. Louis, Mosby, 1986, p. 1597.

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may be attempted to relieve the symptoms and inflammation. Very slow and gradual return to sports is attempted after all symptoms have disappeared. If symptoms persist despite at least 6 months of conservative treatment and the athlete is unwilling or unable to give up participating in the sport, surgery may be necessary. Surgical options include fusing the joint (removing all motion at the joint) or cleaning out the joint and removing inflamed or scarred tissue.

#### Medication

- Nonsteroidal anti-inflammatory medications, such as aspirin and ibuprofen (do not take within 7 days before surgery), or other minor pain relievers, such as acetaminophen, are often recommended. Take these as directed. Contact your physician immediately if any bleeding, stomach upset, or signs of an allergic reaction occur.
- Pain relievers may be prescribed as necessary, usually after surgery. Use only as directed.
- Injections of corticosteroids to the pubic symphysis joint may be given to reduce inflammation. Cortisone given in pill form may also be attempted instead of injection; however, there are many more risks with this form of treatment,

including alterations in blood sugars in persons with diabetes and interruption of blood supply to the hip (rare with a short course of treatment).

#### Heat and Cold

- Cold is used to relieve pain and reduce inflammation. Cold should be applied for 10 to 15 minutes every 2 to 3 hours for inflammation and pain and immediately after any activity that aggravates your symptoms. Use ice packs or an ice massage.
- Heat may be used before performing stretching and strengthening activities prescribed by your physician, physical therapist, or athletic trainer. Use a heat pack or a warm soak.

#### Notify Our Office If

- Pain, tenderness, or swelling worsens or does not improve despite 2 to 6 weeks of treatment
- New, unexplained symptoms develop (drugs used in treatment may produce side effects)

### EXERCISES

#### RANGE OF MOTION AND STRETCHING EXERCISES • Osteitis Pubis

These are some of the *initial* exercises you may start your rehabilitation program with until you see your physician, physical therapist, or athletic trainer again or until your symptoms are resolved. Do them gently. If they provoke symptoms, stop and consult your physician, physical therapist, or athletic trainer. Please remember:

- Flexible tissue is more tolerant of the stresses placed on it during activities.
- Each stretch should be held for 20 to 30 seconds.
- A *gentle* stretching sensation should be felt.



#### FLEXIBILITY · Adductors, Lunge

- 1. Spread your legs wide while standing. Then assume a partial "squat" position.
- 2. "Lunge/Lean" away from the side you want to stretch, shifting your weight toward the bent leg.
- 3. Hold this position for <u>seconds</u>.
- 4. Repeat exercise \_\_\_\_\_ times, \_\_\_\_\_ times per day.



#### FLEXIBILITY · Adductors, Ballet

- 1. Stand and place the leg you want to stretch on a counter, chair, or other sturdy object.
- 2. Gradually bend the opposite knee and gently lunge away from the leg you are stretching.
- 3. Hold this position for \_\_\_\_\_ seconds.
- 4. Repeat exercise \_\_\_\_\_ times, \_\_\_\_\_ times per day.



#### FLEXIBILITY · Hip Flexors, Lunge

- 1. Assume the position shown in the diagram.
- 2. Lunge forward, leading with your hips. Do not bend forward at the waist. Keep your chest upright.
- 3. Hold this position for <u>seconds</u>.
- 4. Repeat exercise \_\_\_\_\_ times, \_\_\_\_\_ times per day.



#### FLEXIBILITY · Hamstrings/Adductors, V-Sit

- 1. Sit on the floor with your legs spread as wide as possible in front of you. Your knees must be straight.
- 2. Lean over one leg with both hands. Keep your chest upright and reach for your toes. (Position A)
- 3. Hold this position for \_\_\_\_\_ seconds. Relax and return to your starting position.
- 4. Now reach forward between your legs. (Position B)
- 5. Repeat for Position C.
- 6. Repeat exercise \_\_\_\_\_ times, \_\_\_\_\_ times per day.

#### STRENGTHENING EXERCISES · Osteitis Pubis

These are some of the *initial* exercises you may start your rehabilitation program with until you see your physician, physical therapist, or athletic trainer again or until your symptoms are resolved. Please remember:

- Strong muscles with good endurance tolerate stress better.
- Do the exercises as *initially* prescribed by your physician, physical therapist, or athletic trainer. Progress slowly with each exercise, gradually increasing the number of repetitions and weight used under their guidance.



#### STRENGTH · Hip Adduction

- 1. Lie on your side as shown with the injured/weak leg on the bottom.
- 2. Place the foot of your top leg flat on the floor for balance. It may be in front or behind the bottom leg.
- Lift the bottom leg as shown. Hold this position for \_\_\_\_\_\_ seconds.
- 4. Slowly lower your leg to the starting position.
- 5. Repeat exercise \_\_\_\_\_ times, \_\_\_\_\_ times per day.

#### STRENGTH · Hip Adduction

- 1. Sit on a chair and place a large ball (volleyball or basketball size) between your legs as shown.
- 2. Squeeze your thighs together.
- 3. Hold this position for \_\_\_\_\_ seconds.
- 4. Repeat exercise \_\_\_\_\_ times, \_\_\_\_\_ times per day.

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Notes:

Notes and suggestions