

SESAMOID INJURY



■ ■ ■ Description

Sesamoid injury is an injury of the sesamoid bones or the tissues around it. Sesamoid bones are bones that are actually within tendons. They exist normally in the foot and hand, as well as the knee. (The kneecap [patella] is a sesamoid bone.) The sesamoid bones of the foot are more commonly injured than those of the hand. More specifically, the sesamoid on the inner part of the base of the big toe is most likely to be injured because most of the weight with standing and jumping is transmitted through it. Injury to the sesamoids are uncommon and include inflammation and swelling (sesamoiditis), fracture, or stress fracture of the sesamoids.

■ ■ ■ Common Signs and Symptoms

- Pain with weight bearing on the foot, such as with standing, walking, running, jumping, or dancing
- Pain with trying to lift the great toe
- Tenderness and occasional swelling under the base of the big toe

■ ■ ■ Causes

Sesamoid injury is usually due to local sudden trauma, such as jumping and landing on the ball of the foot, or repeated trauma, such as with jumping or dancing on the balls of the feet. Other causes included interrupted blood supply (avascular necrosis) and infection.

■ ■ ■ Risk Increases With

- Sports that require jumping from a great height or repeated jumping or standing on the balls of the feet (basketball, ballet, jogging, long-distance running)
- Shoes that are too small or with very high heels
- Abnormally large or poorly shaped sesamoid bone
- Bunions

■ ■ ■ Preventive Measures

- Appropriately warm up and stretch before practice or competition.
- Maintain appropriate conditioning:
 - Ankle and leg flexibility
 - Muscle strength and endurance
- Use proper technique and have a coach correct improper technique.
- Wear taping, protective strapping, bracing, or padding.
- Wear shoes that are the proper size and ensure correct fit.

■ ■ ■ Expected Outcome

This condition is usually curable within 4 to 6 months with appropriate treatment. The recovery is usually quicker if there is a fracture and it is treated soon after injury.

■ ■ ■ Possible Complications

- Prolonged healing time if not appropriately treated or if not given enough time to heal
- Fracture does not heal (nonunion); not always painful and may not need treatment
- Prolonged disability
- Frequent recurrence of symptoms; appropriately addressing the problem with rehabilitation decreases frequency of recurrence and optimizes healing time
- Arthritis of the joint between the sesamoid and the rest of the big toe
- Complications of surgery, including infection, bleeding, injury to nerves, continued pain, bunion or reverse bunion formation, toe weakness, and toe hyperextension

■ ■ ■ General Treatment Considerations

Initial treatment consists of medications and ice to relieve pain. Modifying the activity that initially caused the problem to occur, resting, and, occasionally, keeping completely off the foot with the use of crutches may be necessary. The use of padding, bracing, or taping the toe may also be beneficial. Casting of the leg and foot, a walking boot, or a stiff-soled shoe (with or without an arch support) may also be helpful. Chronic cases often require referral to a physical therapist or athletic trainer for further evaluation and treatment. If symptoms persist, an injection of cortisone and anesthetics or surgical intervention may be required. Uncommonly, surgery may be necessary to remove a chronically inflamed or fractured sesamoid bone.

■ ■ ■ 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 by your physician.
- Pain relievers may be prescribed as necessary by your physician. Use only as directed.
- Injections of corticosteroids may be given to reduce inflammation, although not usually for acute injuries.

■ ■ ■ Cold Therapy

Cold is used to relieve pain and reduce inflammation for acute and chronic cases. Cold should be applied for 20 minutes every 2 to 3 hours for inflammation and pain and immediately after any activity that aggravates your symptoms. Use ice packs or ice massage.

■ ■ ■ **Notify Our Office If**

- Symptoms get worse or do not improve in 6 weeks despite treatment
- Any signs of infection develop, including fever, headaches, muscular aches and weakness, fatigue, redness, warmth, increased swelling, and pain
- Any of the following occur after surgery:
 - You experience pain, numbness, or coldness in the foot and ankle
 - Blue, gray, or dusky color appears in the toenails
 - Signs of infection develop, including fever, increased pain, swelling, redness, drainage, or bleeding in the surgical area
- New, unexplained symptoms develop (drugs used in treatment may produce side effects, including bleeding, stomach upset, and allergic reactions)

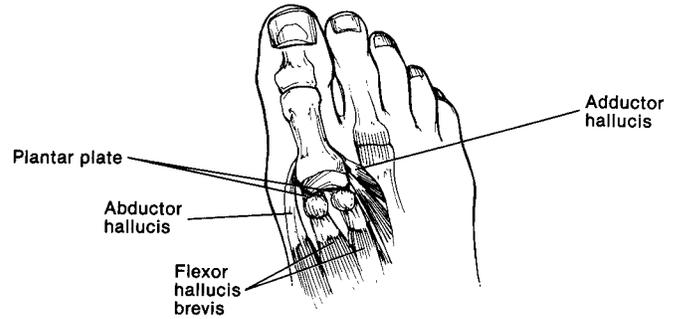


Figure 1

From DeLee JC, Drez D Jr.: Orthopaedic Sports Medicine: Principles and Practice. Philadelphia, WB Saunders, 1994, p. 1846.

Notes:

(Up to 4400 characters only)

Notes and suggestions