

Subtalar Impingement Syndrome



Subtalar impingement syndrome is a somewhat common problem that causes pain on the outer side of the ankle area. The problem has also been referred to as sinus tarsi syndrome.

Patients with subtalar impingement syndrome will often complain of pain with walking, running, or other weight-bearing activities that is felt in an area just below and in front of the ankle bone on the outer side of the ankle (called the sinus tarsi). The pain can be sharp and stabbing at times, but is often achy and deep. The pain generally grows worse throughout the day, as weight-bearing activities are performed.

The source of the pain is the joint below the ankle joint, called the subtalar joint. The subtalar joint separates the heel bone (calcaneus) from the bone that rocks up and down within the ankle joint (talus). The pain originates when the subtalar joint repetitively jams (impinges) while performing weight-bearing activities. Most commonly, the mechanism that causes the repetitive jamming is a foot that pronates excessively (a foot where the arch flattens and rolls in as the heel rolls out). The problem usually develops without an acute injury.

Besides feeling pain with weight-bearing activities at the area just below and in front of the ankle bone on the outer side of the ankle (sinus tarsi), you may note swelling in this area and tenderness when you push your finger into this area. X-rays are usually not helpful to make the diagnosis; although in more severe cases may show some degenerative arthritis of the subtalar joint.

Subtalar impingement syndrome usually resolves with non-surgical treatment in 2-8 weeks, depending on the duration and severity of the condition at the beginning of treatment. It is essential to properly support your foot if this condition is to resolve. In some cases, the condition takes longer to resolve, and in rare cases, non-surgical treatment fails. Surgery may be effective in the rare case that does not resolve with non-surgical treatment.

What can I do for myself?

You should use as many of these treatments as possible concurrently:

- q Wear supportive shoes.
- q Add a good arch support or orthotic in your shoe. (We prefer Superfeet orthotics – they can be purchased at The Deport Store next to the Department of Foot and Ankle Surgery.)
- q Avoid standing or walking barefoot or in unsupportive footwear like slippers or sandals. (Instead, you should be in supportive shoes with Superfeet orthotics as much as possible every day.)
- q Perform calf stretching exercises for 30-60 seconds on each leg at least two times per day. (Stand an arm's length away from the wall, facing the wall. Lean into the wall, stepping forward with one leg, leaving the other leg planted back. The leg remaining back is the one being stretched. The leg being stretched should have the knee straight (locked) and the toes pointed straight at the wall. Stretch forward until tightness is felt in the calf. Hold this position without bouncing for a count of 30-60 seconds. Repeat the stretch for the opposite leg.)
- q Lose weight.
- q Modify your activities. (Decrease the time that you stand, walk, or engage in exercise that put a load your feet. Convert impact exercise to non-impact exercise – cycling, swimming, and pool running are acceptable alternatives.)
- q Use an oral anti-inflammatory medication. (We recommend over-the-counter ibuprofen. Take three 200mg tablets, three times per day with food – breakfast, lunch, and dinner. To obtain the proper anti-inflammatory effect, you must maintain this dosing pattern for at least 10 days. Discontinue the medication if any side effects are noted, including, but not limited to: stomach upset, rash, swelling, or change in stool color. **IF YOU TAKE ANY OF THE FOLLOWING MEDICATIONS, DO NOT TAKE IBUPROFEN: COUMADIN, PLAVIX, OR OTHER PRESCRIPTION OR OVER-THE-COUNTER ORAL ANTI-INFLAMMATORY MEDIATIONS. IF YOU HAVE ANY OF THE FOLLOWING HEALTH CONDITIONS, DO NOT TAKE IBUPROFEN: KIDNEY DISEASE OR IMPAIRMENT, STOMACH OR DUODENAL ULCER, DIABETES MELLITUS, BLEEDING DISORDER.**)
- q See your doctor if you have failed to respond to the above regimen after a two month trial.

What can my doctor add?

- q Administer cortisone injections. (Injection of cortisone is a potent way to reduce inflammation and expedite the recovery process. Cortisone does not replace the need for supportive shoes, foot orthoses, calf stretching, and other physical measures. Cortisone is typically injected at 2 month intervals, until the condition resolves or 3 injection have been administered, whichever comes first. The risks of cortisone injections for subtalar impingement syndrome are: increased pain for 24-72 hours following the injection (30%), infection (<0.1%), and arthritis (<1%). Systemic side effects of this type of injection are extremely rare.)
- q Prescribe physical therapy. (Ultrasound and interferential electric current therapy can be useful methods of reducing inflammation.)
- q Refer you for custom-made foot orthotics. (Custom foot orthoses are not a covered benefit of the Kaiser Health Plan. However, custom foot orthoses are available through the Department of Foot and Ankle Surgery on a fee for service basis.)
- q Perform surgery. (Surgery involves fusing the subtalar joint. The anesthesia is usually general or spinal. The surgery is usually done on an inpatient basis with discharge to home occurring in 1-3 days after the surgery. A below-knee cast is used for 3 months. The first two months requires absolutely no weight-bearing, while in the 3rd month, weight-bearing is allowed. Recovery takes 4-12 months. The success rate is about 80%. About 15% are better, but still have some problems. About 5% are no better or worse. Risks include, but are not limited to: delayed or non-healing of the fusion site, infection, nerve injury or entrapment, tendon injury, wound healing or scar problems, prolonged recovery, incomplete relief of pain, no relief of pain, worsened pain, limp, chronic swelling, and transfer of pain, callus, or arthritis to other area of the foot or ankle.)