

Sesamoid Fracture

Sesamoid fractures are difficult to understand unless you know what the sesamoid bones are. These are tiny little bones that are found in the muscles and tendons of the foot. These bones are about the size of a jelly bean.

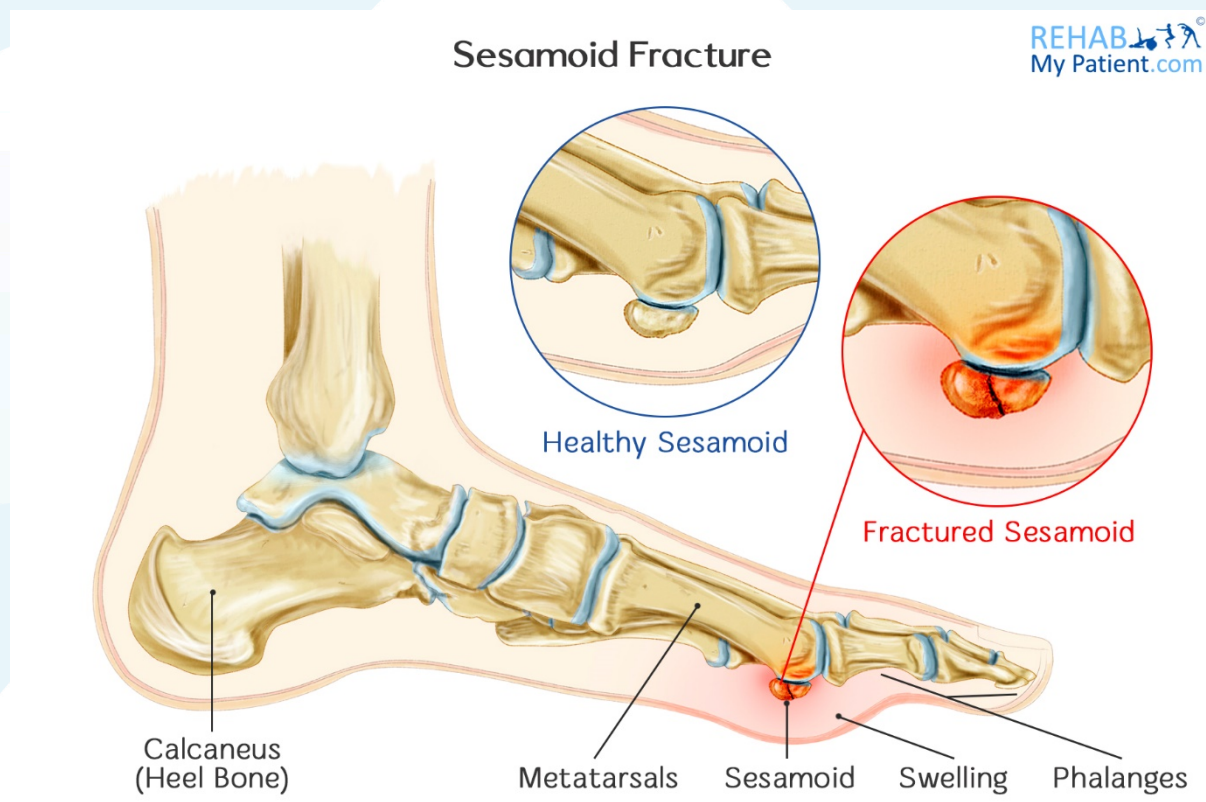
The sesamoid bones have a couple of functions. One of those functions is to increase the leverage of the small muscles with in turn increases their efficiency. Another function of these bones is to make sure that the body weight is evenly distributed. The sesamoid bones also protect the tendons against excessive pressure being put on them by the other bones in the foot.

Sesamoid Fracture Anatomy

Look at your bottom of your foot. Right where the ball of your foot meets the big toe is where these bones are located. The muscle/tendon that they are in is called the flexor hallucis brevis. The two sesamoid bones each have different names. They are the tibial sesamoid which is on the inner side and the fibular sesamoid is located toward the outer side.

An interesting thing about the tibial sesamoid is the fact that in roughly 10% of people, there can be two parts to it. This is known as it being bipartite. This is the one that is most commonly injures. That is because it is right below the first bone in the big toe and is more centrally located.

Also some people have extra sesamoid bones which are just randomly present. Without an X-ray, it is impossible to accurately know.



How to Treat a Sesamoid Fracture:

1. Non-Surgical Treatments

- If you have obtained a sesamoid fracture then it may be able to be treated without surgery. The first thing that you will need to do is to take some sort of anti-inflammatory medication such as Ibuprofen, aspirin or any other type that your doctor might suggest. This serves 2 purposes. The first purpose is to reduce swelling. The second purpose is to reduce any pain you may feel.
- You may also be fitted with a plaster cast of a non-weight bearing type.
- You may have this cast for up to 6 weeks and will have to use crutches to get around.
- You may also be advised to wear a metatarsal pad in order to relieve any pressure from the sesamoid. These are a type of orthotics.
- A foot splint may also be used in conjunction with the metatarsal pad.

If these treatments do not improve the situation then surgery will be necessary.

2. Surgical Treatments

- In this type of surgery, the sesamoid bone is either partially or totally removed from the foot.
- It will take an additional 4-6 weeks to recover from the surgery.
- There are complications that can arise from the surgery. These include:
 - Nerve injury
 - Weakening in the muscles that control the flexing action of the big toe.
 - Possible development of hammer toe deformity
 - Scarring from the surgery may become both painful and thick.

The vast majority of sesamoid fractures are treated conservatively. Therapy can help reduce inflammation around the area, and low intensity ultrasound may speed up bone healing.

Tips:

- Good nutrition is always helpful in bone health. Make sure that you are getting an adequate amount of Vitamin D and calcium.
- Whatever activities you are doing, always wear appropriate footwear...in the right size.
- Sportsmen or women who are particularly heavy (hammer throwers, discus, weightlifters) need to be careful with repetitive stomping of the ground.