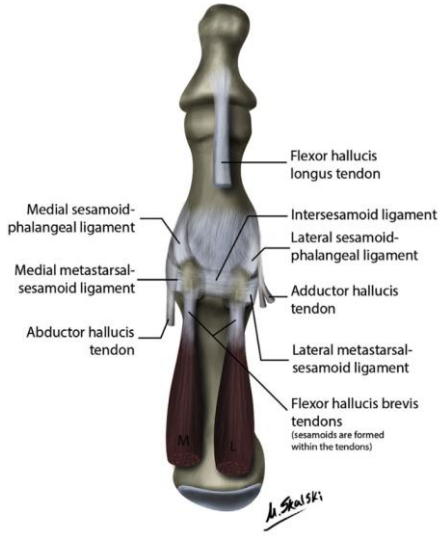
HAMISH CURRY | FOOT AND ANKLE ORTHOPAEDIC SURGEON

Sesamoid pathology

The sesamoids are the 2 small bones (medial and lateral sesamoid) which lie beneath the great toe MTP joint.
The sesamoids act like pulleys and increase the ability of the tendons to transmit muscle force.
In 10% of patients the medial sesamoid is in 2 parts
(bipartite) and this is present on both sides in 25% of patients.



Who gets sesamoid problems?

- Younger adults
- Athletes particularly runners
- Dancers particularly ballet
- High arched feet

What are the symptoms?

- Weightbearing pain on the undersurface of the great toe MTP joint
- Stiffness of the great toe
- Swelling beneath the great toe

What problems can occur?

There is overlap of the problems which can occur in relation to the sesamoids
Sesamoiditis is broad term which includes:

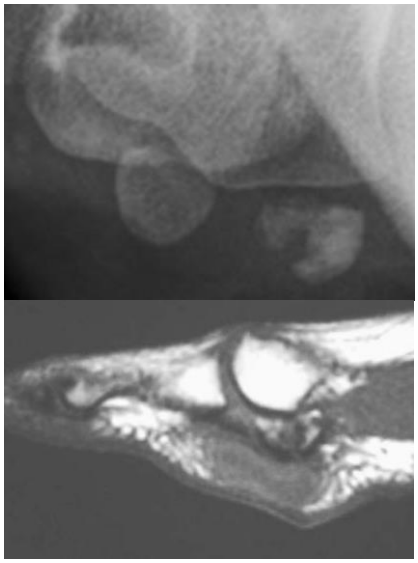
- Mechanical overload
- Early arthritis
- Avascular necrosis
    - Without associated trauma
    - With trauma

Avascular necrosis means loss of blood supply with subsequent death of the bone. This can start as inflammation in the bone with normal structure. Over time it can lead to collapse and fracturing of the sesamoid bone which is not able to heal.

Stress fractures can occur with repeated loading. The medial sesamoid is more commonly affected.
Specific foot shapes and sports are associated with this type of injury.

Acute fractures can occur with higher energy trauma. This are often associated with damage to the soft tissue restraints of the great toe.

Metatarsal-sesamoid arthritis when the cartilage is
lost between the sesamoids and the metatarsal head resulting in pain and stiffness. It can be the end result of sesamoid collapse and avascular necrosis.



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Also consulting at: Boronia, Caroline Springs, Wantirna, Werribee

What is the non-surgical treatment?

This varies depending on the pathology

- Pain relief
  - Paracetamol
  - Anti inflammatories if tolerated
- Activity modification
  - avoid impact exercise
  - activities on the toes
- Protected or non-weightbearing in acute injuries
- Shoe modification
  - avoiding shoes with a heel
  - adequate cushioning in the forefoot
  - stiff soled shoes or stiff insert for fractures
- Orthotics to offload the sesamoid
  - metatarsal dome
  - metatarsal sink
- Taping of the toe to limit motion
- Steroid injection if the joint is inflamed or in cases of arthritis

Acute fractures require 6 weeks non weightbearing in a boot then a further 6 weeks weightbearing in a boot or shoe with a carbon fibre insert.

When is surgery considered?

- In acute injuries with wide displacement and an associated soft tissue injury
- When appropriate non operative for more than 3 months has failed and symptoms persist

What surgery is recommended?

- Partial removal of the sesamoid
- Complete removal of the sesamoid
- Shaving of the sesamoids
- Additional procedures to address foot shape

Surgery on the medial sesamoid is performed through an incision on the inside of the great toe MTP joint.

Surgery for the lateral sesamoid is performed through an incision on the sole of the foot.

What is the rate of success after surgery?

The literature is variable and states that between 50-90% of patients are satisfied following surgery.

What does the rehabilitation involve?

- 1 night in hospital
- 2 weeks foot elevated as much as possible to minimize swelling an ensure wound healing
- Non weightbearing in a stiff soled post operative shoe for 3 weeks.
- Weightbearing in a stiff soled post operative shoe for 5 weeks.
- Transition into a supportive shoe with an orthotic to off load the sesamoid at 8 weeks
- By 8 weeks managing most daily activities
- By 4-6 months returning to recreational activities
- Swelling resolution at 4-6 months
- Final result at 6 months

How long will I be off work?

This is dependent upon your occupation

- Seated job 2-3 weeks
- Standing job 8 weeks
- Heavy lifting job 12-16 weeks

When can I drive?

- Manual car
  - No driving for 8 weeks
- Automatic car
  - Left foot no driving for 2 weeks
  - Right foot no driving for 8 weeks

What are the risks of the procedure?

General risks of surgery

- Infection and wound healing problems
  - More common if lateral sesamoid is resected
- Nerve injury and scar sensitivity
- Blood clots to the leg
- Anaesthetic problems

Specific risks for sesamoid surgery

There are varied reports in the literature

- Stiffness of the great toe MTP joint –30%
- Weakness of push off
- Persistent pain- 25- 50%
- Development of deformity if the medial sesamoid is resected- <5%

This information is an overview of the management sesamoid problem and is not all inclusive.

For any questions please contact Mr. Curry's rooms for an appointment. **(03) 9928 6560**

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