



## Forefoot Pain

Information provided by mhealth Podiatrist Paddy McCormack and Melbourne Orthopaedic Surgeon Keith Winters.

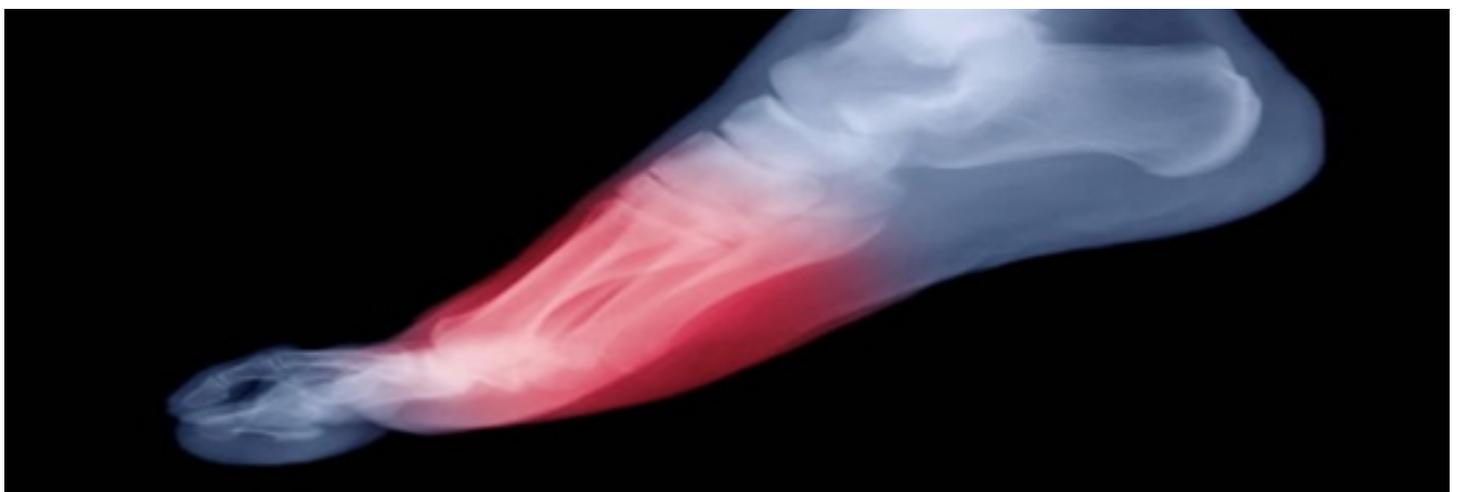
### What causes pain in the forefoot?

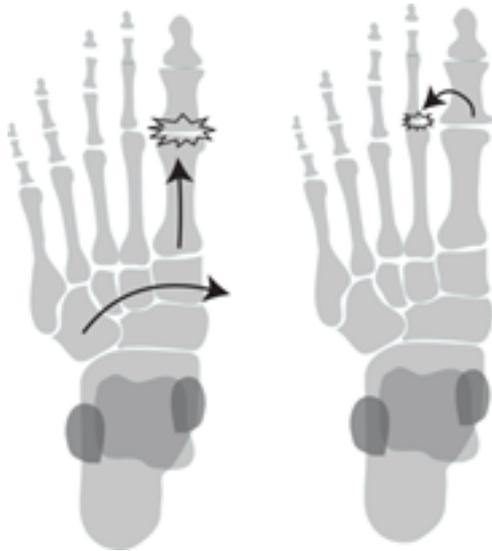
With its pulleys, levers and arches the foot functions to take the weight of the body and move it forward with great efficiency. When all the pieces of this mechanism are in the correct position and pulling with adequate strength, the machine is very effective. However when parts of the chain are out of alignment mechanical stresses or hot spots can cause pain in the toe joints or under the ball of the foot.

Several common problems can affect the forefoot in this case such as.

- ▶ Arthritis
- ▶ Bunions
- ▶ Neuromas
- ▶ Metatarsalgia
- ▶ Plantar plate tears

All of the above problems require intervention. Catching these conditions early can keep you functioning well and can also avoid surgical interventions. To be sure you should book with your mhealth podiatrist today for an assessment.





## Arthritis of the big toe

Arthritis of the toe may be inherited but it is more likely to come from bad biomechanics of the foot or from trauma. This stops the big toe joint working properly and can either damage this joint directly or can damage the smaller toe joints as they have to take on extra pressure they are not meant to take.

### Causes:

Arthritis of the big toe is often due to trauma or injury, not often a singular event but one that occurs repeatedly over time. Examples may include poor footwear like flexible and unsupportive footwear, high heels, shoes that are too small/tight or repeated loading activities like ballet dancing or boxing. Gout and other conditions like rheumatoid arthritis can also predispose the big toe joint to arthritic or degenerative changes.

### Will it get better?

To get better the biomechanics of the arthritic big toe need to be addressed to unload the affected structures. If left untreated then this condition is not likely to improve.

### Symptoms:

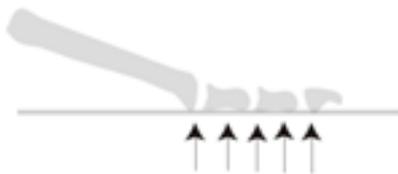
- ▶ Stiffness in the joint
- ▶ Joint enlargement
- ▶ Pain
- ▶ Swelling
- ▶ Walking difficulty
- ▶ Associated deformity
- ▶ Problems with certain shoes



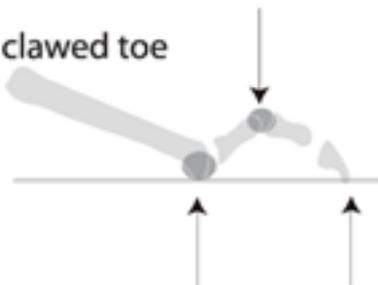
## Clawed toes (Hammer or Mallet)

Clawed toes are exactly that. The toes take on a clawed appearance even when at rest. They are also called hammer toes, as if the toes have been hit on their tips by a hammer. Pressure on the ball of the foot increases as a result of retracted digits placing you at risk of further complications such as arthritis, bursitis, neuromas, plantar plate injury, corns, callus and wounds or breakdowns of the skin and flesh of the foot.

normal toe



clawed toe



The difference between Hammer and Mallet toes are the points of contraction. Hammer being at the PIP joint and Mallet at the DIP joint as seen above.

### Causes:

If joints swell the ligaments become stretched and they are no longer capable of holding the toe straight. Long tendons can then pull the toe into a clawed position. This is rarely a solitary condition. It is often the result of other problems and a breakdown of your foot's ability to function efficiently. This breakdown causes a "muscle imbalance" or "flexor stabilisation" that sees the muscles on the bottom of the foot working harder than those on the top, causing changes in their respective length and strength.

### Symptoms:

- ▶ Corns
- ▶ Callus
- ▶ Pain
- ▶ Swelling
- ▶ Walking difficulty
- ▶ Numbness/tingling
- ▶ Associated deformity
- ▶ Problems with certain shoes
- ▶ Wounds



## Bunions/Hallux Valgus

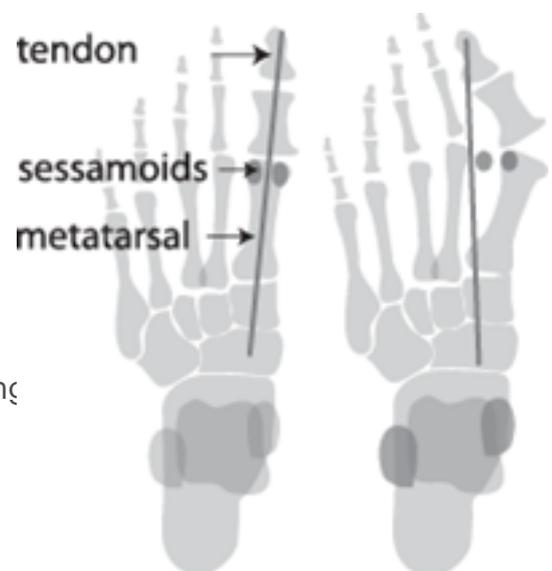
A bunion is characterised by the big toe bending towards the smaller toes and in many cases joint enlargement. The medical term for the big toe pointing towards the other toes is “hallux valgus”. The big toe is very important in the way we walk, especially throughout propulsion. With deviation of the big toe towards the 2nd toe this action becomes compromised and when left untreated often leads to the condition worsening.

### Causes:

There are many causes for bunions such as poor footwear that’s too flexible or tight and pointy like high heels or dress shoes. Poor foot mechanics and repeated trauma like in ballet or boxing can also lead to bunions. Bunions are often progressive and need the causative factors addressed to avoid further complications

### Symptoms:

- ▶ Pain
- ▶ Swelling
- ▶ Joint deviation
- ▶ Lesser toe complications (i.e. raising)
- ▶ Joint enlargement
- ▶ Problems wearing some shoes/problems walking
- ▶ Callus
- ▶ Corns
- ▶ Wound





## Neuroma

Neuromas are trapped nerves or swollen nerves. They are a common cause of pain in the forefoot. Usually seen in the 2nd and 3rd webspaces. Numbness, tingling and burning are often present as symptoms.

### Causes:

Sometimes this occurs due to joints and soft tissues altering shape and compressing the nerve. But more often than not it is due to overloading of the medial column of the forefoot causing the lesser digits to take more pressure/stress than they can tolerate. Neuromas can be due to poor footwear and lower limb mechanics causing a break down in the chain of events that accommodate pressure and creating a “hot spot” of pressure within the foot. Neuromas are often found in association with bursitis & joint inflammation.

### Symptoms:

- ▶ Callus build up
- ▶ Numbness / tingling
- ▶ Pain
- ▶ Swelling
- ▶ Problems walking and wearing certain shoes





## WHAT CAN HELP?

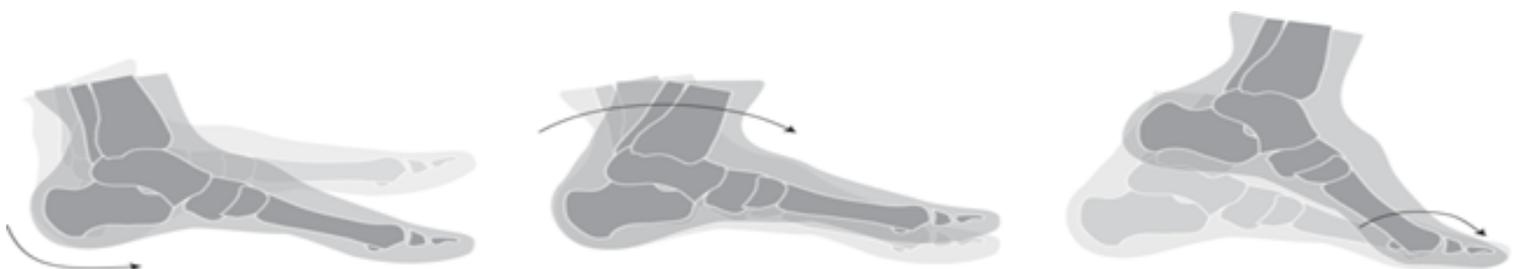
Book in to see your mhealth Podiatrist today as they are experts in diagnostics and the conservative management of lower limb conditions such as those affecting the forefoot.



### Conservative treatments:

Your mhealth Podiatrist will be sure to achieve the best possible outcomes with the professional use of the treatment options below

- ▶ **Biomechanical assessment** – the professional assessment of your lower limbs to help identify any causes or break downs in function that result in overloading of the forefoot
- ▶ **Exercises** – the prescription of specific exercises to address tight muscles that may be causing excess load to be placed through the forefoot i.e. calf stretches
- ▶ **Footwear advice/prescription** – such as the use of the correct shoe with support, cushioning, appropriate toe box, rigid shank or a stiff forefoot rocker
- ▶ **Orthotic therapy** – the professional prescription of a corrective and offloading device designed specifically for your foot to address the causative factors not just the symptoms.
- ▶ **Injection therapy** – the professional administration of or referral for the appropriate injections such as local anesthetic, cortisone, platelet rich plasma, and or hyaluronic acid
- ▶ **Surgical advice** – advice and appropriate imaging for any surgical queries or pre surgical advice





## Surgical advice:

Once non-surgical measures have been exhausted surgical input may be needed. Below is an outline of some procedures performed to help with forefoot complications.

### Procedures performed

- Bunionectomies (correction)
- Osteotomies (hammer toe correction)
- Neuroectomy
- Plantar plate repair
- Tendon releases

### Indications for surgery

- Excessive pain
- Excessive damage upon imaging
- Excessive deformity
- Impacting other digits / causing further complications
- Lack of success with non-surgical modalities

### Important information to remember

- The above surgeries will differ in every case
- You will be off your feet for specific time frames after surgery
- You will be placed in specialised footwear for specific timeframes (by surgeon or podiatrist)
- Rehab compliance is key! It is not an overnight fix
- Be aware of complications. Ask your mhealth Podiatrist or surgeon
- Have a list of questions ready for your surgical consult
- Have a combined treatment plan with your surgeon and podiatrist

Have confidence that the team at Melbourne Orthopaedic Specialists and mhealth are professionals with years of experience and who are there to help!



Please also see our websites for more information on common conditions and procedures.

- ▶ <http://www.mhealth.com.au/resources>
- ▶ [http://www.melbourneorthopaedicspecialists.com.au/common\\_foot\\_ankle\\_conditions.html](http://www.melbourneorthopaedicspecialists.com.au/common_foot_ankle_conditions.html)