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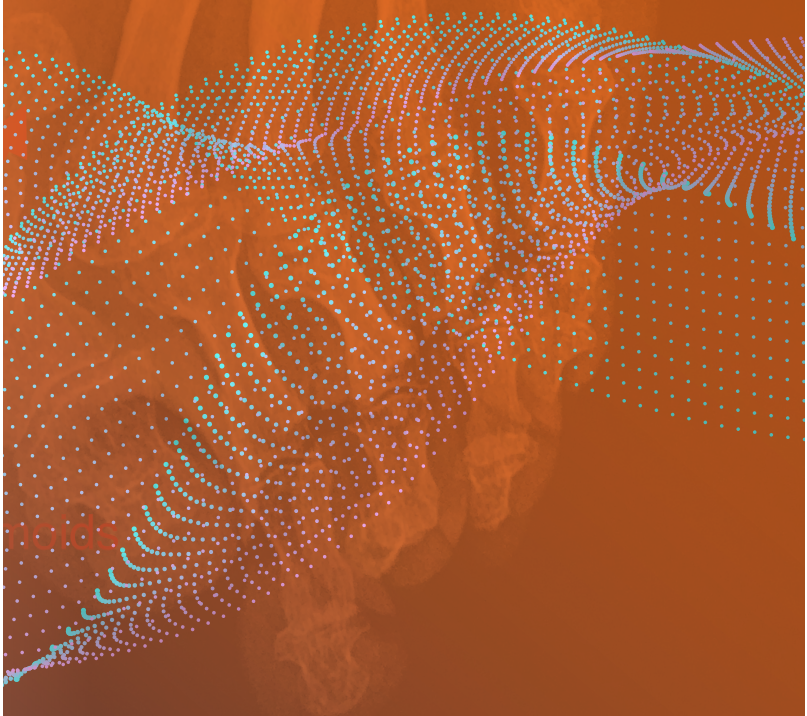
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**Minimal Incision Hallux  
Valgus Surgery**

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# Introduction

Hallux Valgus refers to a deformity affecting the great toe that is commonly referred to by patients as "Bunions". Strictly speaking the Bunion is only one part of the deformity.

In Hallux Valgus the deformity is driven by a varus alignment of the first metatarsal. This bony malalignment drives soft tissue imbalance. The Adductor Hallucis tendon attaches to the lateral sesamoid and this becomes tighter creating a valgus pull on the great toe. The sesamoids sublux out from under the first metatarsal head and as they are attached to the great toe this also increases the valgus deformity and can impart a rotation of the great toe called Pronation.

The medial side of the first metatarsal head rubs against footwear and this causes fibrocartilage to develop which then develops bone through a process of endochondral ossification. This forms the Bunion which is a combination of bone and soft tissue



Minimal Incision Hallux Valgus Surgery

## Cause of Hallux Valgus

The causes of Hallux Valgus are largely genetic. The primary driver is the first ray varus but contributing factors are hyper mobility of the medial column, flat feet and ligamentous laxity.

Footwear with high heels and tight constrictive toe boxes probably exacerbate hallux valgus but aren't a primary cause of their own.

## Indications for Surgery

The best indication for surgery is the relief of pain. Bunion surgery in the absence of pain for purely cosmetic reasons has a higher risk of poor results.

Pain typically occurs at the bunion from soft tissue and nerve irritation. Secondary causes of pain can be second hammer toe formation and transfer metatarsalgia. Sometimes it is the toe deformity and pain that drives patients to seek treatment.

## Surgical Treatment

There have been over 100 different operations described for the correction of Hallux Valgus. Hallux Valgus varies in terms of its severity and contributing factors and the surgical approach has to be adapted to the individual clinical situation.

The traditional surgery has involved large open incisions that can involve substantial soft tissue dissection. This can contribute to swelling and stiffness.

## MICA

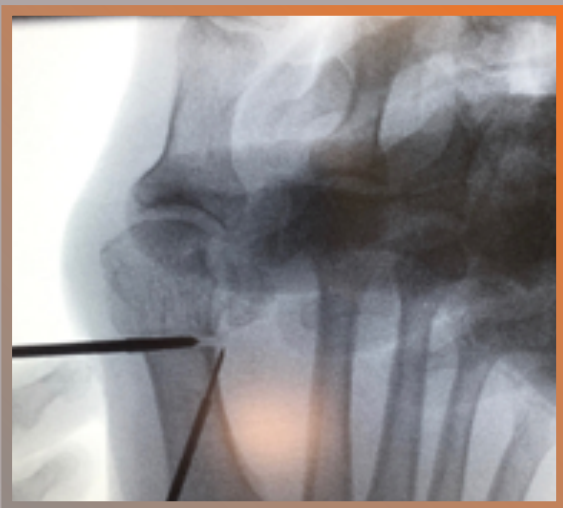
The **MICA** procedure which stands for Minimal Incision Chevron Aiken allows us to re-liably correct the hallux valgus deformity through a series of small incisions using high speed burrs and Mini C arm Xray Control.

Substantial translation can be achieved at the Chevron osteotomy and this is then fixed with two cannulated screws.

A percutaneous lateral release is performed using a beaver blade and final correction is achieved using a wedge shaped burr and screw fixation for the Aiken osteotomy.

The residual bony prominences from the bunion are then shaved down using the burr.

Patients are placed in a postop shoe and weight bear heel only for 6 weeks. They can transition to normal footwear and walking at 6 weeks.



Minimal Incision Hallux Valgus Surgery

## Advantages of MICA over Open Surgery

### Reduced Swelling

Open surgery by definition involves more soft tissue disturbance and this creates a "dead space" that bleeding can collect in. This contributes to swelling and it is the main reason swelling tends to be less with MICA surgery.

### Cosmesis

The small stab incisions- 5 in total - required for MICA surgery heal with minimal scarring. This has advantages over the larger scar for open surgery. Particularly for women.

### Less Stiffness

Open surgery involves opening of the First MTPJ at least for excision of the Bunion. MICA surgery is extra-articular and as a result generally preserves better flexibility than open surgery.

### Less Pain

The stability of the fixation achieved combined with the smaller skin incision and reduced soft tissue disturbance all contribute to less pain than with traditional open surgery





Before Surgery

After Surgery

## Summary

Hallux Valgus is a common foot deformity that can cause significant problems for patients in terms of pain, difficulty with footwear and cosmesis.

Traditional open techniques can reliably correct the deformity and achieve good surgical outcomes but the newer percutaneous MICA technique has substantial advantages in terms of swelling, stiffness and cosmesis and is my preferred technique.

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After Surgery with x-ray



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