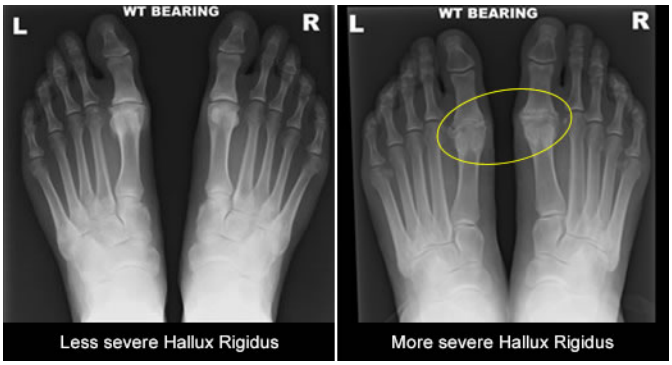
DR SIMON ZILKO
ORTHOPAEDIC FOOT + ANKLE SURGEON

Hallux Rigidus (Big Toe Arthritis)

Hallux rigidus refers to stiffness (rigidus) of the joint at the base of the great toe (hallux). This joint is called the 1st metatarsophalangeal joint (MTPJ). The usual cause of hallux rigidus is arthritis or wear and tear of the smooth cartilage that lines the joint. It may be caused by a previous injury or it may be part of a general medical condition e.g. gout. Sometimes it is associated with a bunion (hallux valgus). Often the cause is unknown; it just develops, particularly as people get older.



Hallux rigidus presents with stiffness and pain in the great toe MTPJ. If the symptoms are severe, it may limit walking distance, and compromise work and recreational activities. Bony spurs (osteophytes) develop around the great toe MTPJ and can cause pain by rubbing against tight fitting shoes. In an attempt to off-load the painful great toe, some people will preferentially walk on the outer border of the foot, causing transfer pain to the lesser toes.

NON-OPERATIVE

The main aims are to relieve pain and decrease loading and movement through the great toe MTPJ. Simple lifestyle and activity modifications including weight loss, the use of walking aids and the avoidance of high impact activities may be all that is necessary. Wearing a **stiff-soled shoe** or adding a **carbon foot plate** can provide very good relief. In addition, painkillers (eg paracetamol) and anti-inflammatories can be helpful. High heels and shoes with a narrow toe box should be avoided. Finally, a cortisone injection may offer relief of inflammation but as with most treatments, the degree and extent of relief varies from patient to patient.

OPERATIVE MANAGEMENT

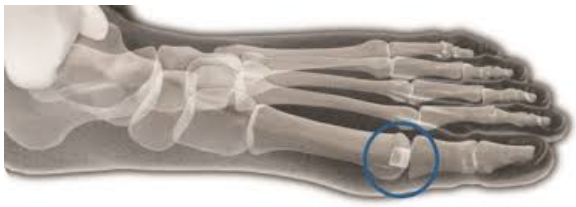
Surgery is considered when the previous measures fail. There are two main surgical options to relieve pain and improve quality of life. The first option includes motion-preserving procedures such as joint debridement or re-surfacing, and the alternative is an arthrodesis (fusion) of the MTPJ. The best option for an individual patient depends on many factors including the severity of arthritis, the age and functional demands of the patient, and the presence of arthritis in adjacent joints.

MTPJ CHEILECTOMY

If the arthritis is mild, then a clean-up (debridement) of the joint may be possible with a cheilectomy. The word *cheilectomy* comes from the Greek word Cheilos, meaning 'lip', and this procedure involves removing the abnormal bone spurs from the top part of the joint. This treatment is good for early arthritis, and is effective at relieving pain and stiffness due to bone spurs.

MTPJ RESURFACING

Some patients with early-to-moderate wear and tear of the cartilage on the metatarsal head are amenable to a resurfacing procedure with the *Cartiva* implant. This is a small plastic (polyvinyl alcohol) implant which opens up the joint and offloads the degenerate areas. This procedure can provide good pain relief whilst maintaining some movement at the 1st MTP joint.



THE CARTIVA IMPLANT

FRACS Fellow of the Royal Australasian College of Surgeons
FAORTHA FELLOW of the AUSTRALIAN ORTHOPAEDIC ASSOCIATION

Dr Simon Zilko ABN 35 192 898 398
P 08 6166 3779 F 08 6316 3316
E admin@drsimonzilko.com.au
www.drsimonzilko.com.au

Wexford Medical Centre
Suite 64, Level 4,
3 Barry Marshall Pde,
Murdoch WA 6150

Hollywood Medical Centre
Suite 37, Level 1,
85 Monash Ave,
Nedlands WA 6009

HALLUX RIGIDUS (BIG TOE ARTHRITIS)

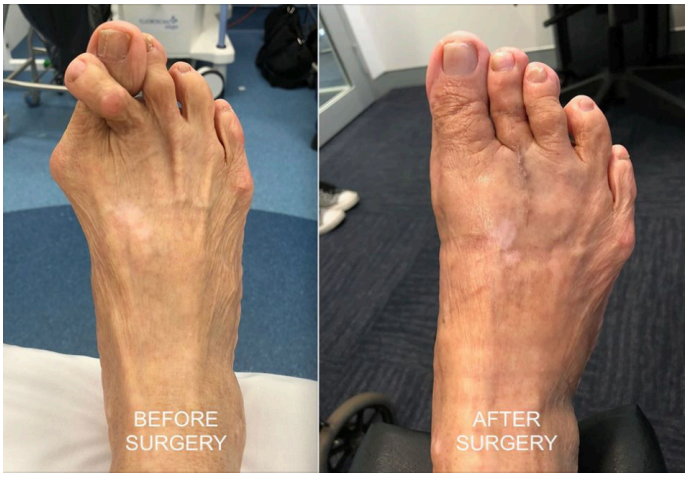
Whilst both the cheilectomy or Cartiva procedures can provide good relief from symptoms, in some people the arthritis is progressive and symptoms may return to a point where further procedures such as joint fusion may be required.

MTPJ REPLACEMENT

Artificial joints that completely replace the surfaces of the diseased bone (in a similar fashion to hip and knee replacements) have been used in the past to treat advanced big toe arthritis. However, previous total toe replacement implants have shown poor results and any subsequent procedures (such as fusion) become much more difficult. For this reason, Dr Zilko does not currently recommend or perform this procedure.

MTPJ ARTHRODESIS

This is the 'gold standard' procedure for moderate to severe arthritis. The remaining cartilage in the joint is removed, the bones on either side of the joint are fused together and held with a plate and screws. 90-95% of patients will experience excellent pain relief with this. However, the joint is stiffened and this limits the wearing of high heels and makes running difficult. There is a small risk of developing arthritis in the next joint along the big toe but this is rarely troublesome.



A DR ZILKO PATIENT PRE-OP & 3 MONTHS POST-OP

For more info, see:
https://www.drsimonzilko.com.au/big-toe-arthritis.html

RECOVERY TIMES

Hospital Stay	Day case
Rest & Elevation	2 weeks
Crutches	1-2 weeks
Swelling	3-6 months
Full recovery	6-12 months

SHOES

Surgical Shoe (Fusion)	4-6 weeks
Surgical Shoe (Debridement)	2 weeks
Wide	6-12 weeks
Normal	12 weeks
Fashionable	Up to 6 months

TIME OFF WORK

Seated	2-3 weeks
Standing	6-8 weeks
Lifting/Carrying/Heavy Manual	12 weeks

COMPLICATIONS

Less than 5-10% will develop a complication that may require further intervention. These include wound-healing problems, infection, damage to nerves and blood vessels, incomplete relief of symptoms, and in the case of arthrodesis, failure of the bones to knit together requiring further surgery.

These notes have been prepared by Dr Zilko. They are general overviews and information aimed for use by his specific patients and reflect his views, opinions and recommendations. This does not constitute medical advice. The contents are provided for information and education purposes only and not for the purpose of rendering medical advice. Please seek the advice of your specific surgeon or other health care provider with any questions regarding medical conditions and treatment.

FRACS Fellow of the Royal Australasian College of Surgeons
FAORTHA Fellow of the Australian Orthopaedic Association

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