

Lisfranc Fracture Fixation

INTRODUCTION

A Lisfranc injury is a bony and/or ligamentous disruption to one or more of the small joints of the middle of the foot (tarsometatarsal joints). Lisfranc injuries are a spectrum ranging from subtle midfoot displacement through to severe midfoot fracture-dislocations. The Lisfranc complex is the keystone to the arch of the foot, and in many cases requires open reduction and internal fixation to stabilise the midfoot and minimise the risks of arch collapse and post-traumatic arthritis.

THE SURGERY

Lisfranc fracture surgery involves a number of steps:

- General anaesthetic and IV antibiotics
- Tourniquet around the thigh
- Incision/s over the fractures on the top of the foot
- Protection of underlying nerves and artery
- Restoration of normal anatomy
- Internal fixation with plates/screws/wires
- Check X-ray
- Closure of incisions with sutures
- Local anaesthetic block
- Surgical camboot (VACOcast)

GUIDELINES FOR POST-OP RECOVERY

HOSPITAL ADMISSION

- In hospital for 1 night, IV antibiotics

FIRST 2 WEEKS

- Elevate foot and rest
- Strictly NON-WEIGHTBEARING in boot
- Mobilise with knee scooter/crutches/frame
- Boot and dressings to stay dry and intact
- Strong painkillers as required
- Aspirin 100mg & Vitamin C 1g per day
- Antibiotics for 5 days
- Wiggle toes to encourage circulation

2 WEEK POST-OP APPOINTMENT

- Review by nurse & removal of dressings and sutures

WEEKS 3-6

- Continue NON-WEIGHTBEARING in boot
- Surgical boot on at ALL times, including in bed, except for rehab exercises & showers (seated with shower chair)
- Mobilise with knee scooter/crutches/frame
- Elevate foot when resting
- Continue Aspirin & Vitamin C
- Podiatry/physiotherapy review (arrange first appointment 2-5 days after 2-week post-op check)
- **REHAB - PODIATRY/PHYSIOTHERAPY:**
 - Joint mobilisation, soft tissue manipulation, nerve desensitisation
 - Gentle active ankle plantarflexion/dorsiflexion and toe flexion/extension
 - NO midfoot rotational stress (avoid pronation/supination)
 - Soft tissue massage and scar mobilisation
 - General upper body, core, hip and knee exercises

6 WEEK POST-OP APPOINTMENT

- X-ray and review by Dr Zilko

WEEKS 7-12

- Elevate foot when resting
- **PODIATRY/PHYSIOTHERAPY:**
 - Commence full weightbearing in boot and then wean out of boot into normal supportive gym shoes
 - Passive and active ROM of ankle, hindfoot and forefoot joints
 - Gait re-training
 - NO impact/open chain exercises
 - Continue lower limb strength and conditioning
- **ORTHOTICS:** New custom orthotics with medial arch support in shoes to provide support to the Lisfranc reconstruction

12 WEEK POST-OP APPOINTMENT

- X-ray and review by Dr Zilko

Removal of plates/screws after 6 months post-op.
Return to most activities 6-9 months.
Full recovery takes up to 12 months.

Every patient's recovery is individual and depends on the severity of the injury and complexity of the surgery.

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