

Introduction

The guidelines that follow are a frame work of basic exercises and management strategies based on the patient who has had an ankle fusion.

The physiotherapy programme will need to be **individualised** for each patient, therapists are expected to use clinical reasoning for each individual and implement alternative treatment strategies as appropriate. Always check post-op note from the operating consultant for any deviations from protocol. All exercises should be performed without excessive pain and the details of specific restrictions will be in the post-operative instructions. If you have not received these please ring the consultant's secretary.

Emphasise to the patient the importance of protecting the repair to allow soft-tissue healing in the first phase. The milestones may be used to assess whether you feel the patient is making good progress or not.

Phase 1 (Day 0 – Week 12)

Goals:

- Ensure no post-operative complications
- Check wound area for signs of infection, exclude DVT, ensure no neural compromise to lower limb
- Protect healing tissue
- Issue appropriate walking aid to optimise weight bearing on operated leg
- Arrangement for shower cover for cast – issue limbo as appropriate
- NWB in PoP for 2/52
- TWB in full fibreglass cast from 2-8/52
- PWB in boot from 8-12/52
- Minimise post-operative pain and swelling
- Elevation
- Thermotherapy
- Maintain ROM and strength in lower limbs (except the fused joint)
- Consider knee, hip, core strength and conditioning as appropriate
- Formal out-patient physiotherapy starts from 12/52

Precautions:

- Maintain weight bearing status according to operation note

Milestones at 12 weeks:

- Optimise pain relief with analgesia
- Removal of PoP and sutures at 2/52
- Immobilisation of ankle joint for 12/52
- X-Ray at 12/52
- Mobilising independently with crutches

Phase 2 (12 - 16 weeks)

Goals:

- Protect healing tissue
- Gait re-education
- Wean off boot
- Assess walking gait and improve biomechanics
- Consider use of walking aid on initial boot weaning to improve gait mechanics - as required
- Encourage regular short distance walking on even terrain
- Encourage use of supportive footwear, and where required heel raises
- Minimise post-operative pain and swelling
- Elevation
- Ankle pumps
- Thermotherapy

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- Restore full ankle ROM (except fused joint)
- Restore ankle dorsiflexion/plantarflexion/inversion/eversion strength as appropriate
- Isometrics, isotonics +/- resistance bands
- Consider knee, hip, core strength and conditioning as appropriate
- Introduce low level (fixed surface) balance/ proprioception training
- Begin scar massage once wound is healed

Precautions:

- No impact exercise
- Take care with early stage balance exercises – limit the amount ankle is challenged initially and progress as able

Milestones at 16 weeks:

- Weaned off boot
- Restore reciprocal gait pattern with/ without walking aid
- Increase core and lower limb strength
- Full ROM in unfused joint
- Re-gain ankle strength as unaffected side

Phase 3 (16 - 20 weeks)**Goals:**

- Gait re-education
- Assess walking gait and restore normal biomechanics
- Encourage increased distance and pace of walking as pain/ swelling allow
- Strength and conditioning
- Loaded/ resisted functional exercises e.g. stepping, squatting
- Progress knee, hip, core strength and conditioning as appropriate
- Introduce low impact cardiovascular exercise to improve cardiovascular fitness: walking, bike, rower, swimming, etc
- Introduce early stage balance exercises
- Continue scar massage until normal fascial glide achieved
- Minimise post-operative pain and swelling
- Elevation
- Ankle pumps
- Thermotherapy

Precautions:

- No impact activities

Milestones at 20 weeks:

- Achieve Normal Gait biomechanics

Phase 4 (20 weeks +)**Goals:**

- Strength and conditioning
- Continue to progress weight and volume as required in work/ activity
- Restore proprioceptive and balance ability as unaffected side
- Progress duration and intensity of low impact cardiovascular exercise to improve cardiovascular fitness: bike, rower, cross trainer, swimming, etc
- Gradual return to functional activities

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