



## Ankle Fusion Rehab Protocol



Ankle fusion, also known as ankle arthrodesis, is a surgical procedure used to relieve pain in a severely arthritic or damaged ankle joint. During the surgery, the bones of the ankle (typically the tibia and talus) are fused together to eliminate movement and reduce pain. While this restricts ankle motion, it provides a stable and pain-free joint. Rehabilitation following ankle fusion is essential to ensure proper healing, return to daily activities, and maintain strength and mobility in surrounding joints.

### See Also:

[Ankle arthritis](#)

[Ankle fusion](#)

### Rehabilitation Goals

- Ensure proper bone healing and fusion
- Control pain and swelling
- Protect the surgical site
- Restore strength and function to the surrounding joints and muscles
- Enable a return to walking and daily activities with assistive devices as needed



## Expected Recovery Time

Milestone	Timeframe
Non-weight bearing period	0–6 weeks
Partial weight bearing	6–10 weeks
Full weight bearing	10–12+ weeks
Return to basic daily activities	12–16 weeks
Return to low-impact work/activities	4–6 months
Full recovery and function	6–12 months

## Phase 1: Early Post-op (0–2 weeks)

### Goals

- Protect the surgical site
- Minimize pain and swelling
- Begin gentle mobility for surrounding joints

### Instructions

- Keep the leg elevated above heart level for most of the day
- Keep the cast or splint dry and intact
- Use crutches or a walker – non-weight bearing on the affected leg
- Consider a kneelie scooter (pictured below)
- Ice the area (above the cast) for 15–20 minutes several times a day

### Exercises

- Toe wiggling to promote circulation
- Isometric quad and glute contractions
- Gentle knee and hip range of motion (e.g., seated knee extensions)





## Phase 2: Protected Healing (2–6 weeks)

### *Goals*

- Continue protection of the fusion site
- Gradually increase mobility of the knee and hip
- Prevent muscle atrophy

### *Instructions*

- Follow up for wound check and possible cast change or transition to a boot
- Remain non-weight bearing
- Continue use of crutches or walker
- Monitor for signs of infection (redness, increased pain, fever  $>38^{\circ}\text{C}$ )

### *Exercises*

- Continue toe, knee, and hip mobility
- Straight leg raises
- Seated ankle alphabet with the non-operated leg

## Phase 3: Transition to Weight Bearing (6–10 weeks)

### *Goals*

- Gradually introduce weight bearing as directed by the surgeon
- Begin gentle strengthening of the lower limb
- Maintain mobility of adjacent joints

### *Instructions*

- Begin partial weight bearing as advised (often with a boot)
- Gradually reduce use of crutches/walker under guidance
- Attend physical therapy sessions if prescribed

### *Exercises*

- Standing hip abduction and extension (with support)
- Gentle seated calf stretches
- Begin core and upper body conditioning



## Phase 4: Functional Strengthening (10–16 weeks)

### *Goals*

- Progress to full weight bearing
- Improve strength and endurance
- Focus on balance and gait training

### *Instructions*

- Transition out of the boot to supportive footwear if cleared
- Continue physiotherapy to restore functional movement
- Avoid high-impact activities

### *Exercises*

- Standing heel raises (bilateral to unilateral as tolerated)
- Balance exercises (e.g., single-leg stance with support)
- Low-resistance cycling or pool walking if approved

## Phase 5: Return to Activity (4–12 months)

### *Goals*

- Regain full function for daily and low-impact recreational activities
- Maximize joint and soft tissue mobility
- Build endurance and prevent compensatory patterns

### *Instructions*

- Continue progressive loading and activity
- Use orthotics or ankle-foot orthosis if recommended
- Discuss return to work/sports with the surgeon

### *Exercises*

- Full lower-limb strengthening (e.g., squats, step-ups)
- Proprioceptive drills (e.g., wobble board)
- Walking on varied surfaces, stair climbing



## When to Contact Your Surgeon

- Increased redness, swelling, or warmth around the surgical site
- Fever above 38°C
- Persistent or worsening pain not controlled by medication
- Numbness or tingling in the foot
- Wound drainage or foul odour from the cast
- Difficulty or inability to bear weight when instructed to

## Disclaimer

Note: This is a general guideline. Your physiotherapist or surgeon may adjust the protocol based on your specific condition and progress.