

Trimalleolar ankle fracture — postoperative rehabilitation

Operative treatment of lateral, medial and posterior malleolar fractures. Account for posterior-fragment management, the joint surface and syndesmotic stability.

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For clinicians, physiotherapists and patients. The individual plan based on the operative report takes precedence over the time ranges on this page.

Essential protection

Weight-bearing	Early weight-bearing may be considered after stable fixation, often from the review around week 2; some patients are allowed to load earlier. Concerns about fixation, the wound or sensation require a longer protective pathway prescribed by the surgeon.
Brace / immobilisation	Splint/cast or walking boot according to stability and wound condition.
Range of motion	Active movement after clearance; movement permission does not imply permission for resistance or full loading.

Rehabilitation at a glance

Timings are approximate. Progression requires criteria and clearance for the relevant motion or loading level.

01

Protection and independence

Weeks 0–2

Safe transfers, swelling control and protection of the wound and fixation.

02

Movement with protection

Weeks 2–6

Restore gentle movement without jeopardising repaired tissues.

03

Walking and strength recovery

Usually weeks 6–12

Gradual return to footwear and walking without a limp.

04

Function and return to activity

From around week 12; criteria based

Restore limb control, stair function, endurance and task-specific capacity.

Full rehabilitation board

POBOZY.ORG / POSTOPERATIVE REHABILITATION			
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Operative treatment of lateral, medial and posterior malleolar fractures. Account for posterior-fragment management, the joint surface and syndesmotic stability.			
01 Protection and independence	02 Movement with protection	03 Walking and strength recovery	04 Function and return to activity
Weeks 0–2	Weeks 2–6	Usually weeks 6–12	From around week 12; criteria based
			
Tomasz Pobozy	Tomasz Pobozy	Tomasz Pobozy	Tomasz Pobozy
Positioning and swelling control <p>In lying or reclining, support the calf on broad cushions. Avoid pressure on the wound or heel. Keep the prescribed support in place; elevation does not replace safe mobilisation.</p> <p>Dose / practice: Short periods of elevation after activity; change position regularly.</p> <p>Watch for: Pressure, numbness, pale toes or pain under the support require assessment.</p>	Gentle active ankle movement <p>Sit with the lower leg supported and the foot free to move. Once removal of the boot is permitted, gently move the foot towards and away from you. Use active movement, without pulling with a towel or having another person force the joint.</p> <p>Dose / practice: Starting dose to individualise: 5–10 slow repetitions, 3–5 short sessions daily, within the permitted range.</p> <p>Watch for: Reduce range and dose for sharp pain, wound tension or increased swelling after the session.</p>	Protected gait training <p>Use the prescribed boot and two crutches. Take short steps, applying only the permitted load through the operated foot. A physiotherapist selects the gait pattern for that restriction; ground contact does not mean full weight-bearing.</p> <p>Dose / practice: Short distances with rests; increase distance before speed. Do not abandon both crutches at once.</p> <p>Watch for: Reduce distance and restore support if limping, pain or swelling increases.</p>	Supported shallow squat <p>Once walking has recovered, stand at a counter with parallel feet. Move the hips back and bend the knees slightly, keeping both heels down. Limit depth to available ankle movement; do not force it.</p> <p>Dose / practice: For example, 5–8 slow repetitions; improve movement quality before adding repetitions.</p> <p>Watch for: Heel lifting, foot twisting or joint pain indicates excessive range.</p>
Before starting <p>Early weight-bearing may be considered after stable fixation, often from the review around week 2; some patients are allowed to load earlier. Concerns about fixation, the wound or sensation require a longer protective pathway prescribed by the surgeon.</p> <p>Splint/cast or walking boot according to stability and wound condition. Active movement after clearance; movement permission does not imply permission for resistance or full loading.</p> <p>Permission to move ≠ permission for resistance and full loading. Illustrations show selected activities; consult the full protocol for restrictions, criteria and warning signs. Doses are examples to individualise.</p>			

Illustrations created for this protocol. A later-phase exercise is not permitted merely because it appears on the board.

Exercises — take a closer look

4 phases • technique • dosage • when to stop

Each phase has its own illustration. The descriptions below are the text equivalent of the board. Doses are starting examples to individualise with a physiotherapist and do not override surgical restrictions.



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Phase 1 · Weeks 0–2

Positioning and swelling control

In lying or reclining, support the calf on broad cushions. Avoid pressure on the wound or heel. Keep the prescribed support in place; elevation does not replace safe mobilisation.

Dose to individualise

Short periods of elevation after activity; change position regularly.

When to reduce or stop

Pressure, numbness, pale toes or pain under the support require assessment.

[Check this phase's restrictions and criteria →](#)



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Phase 2 · Weeks 2–6

Gentle active ankle movement

Sit with the lower leg supported and the foot free to move. Once removal of the boot is permitted, gently move the foot towards and away from you. Use active movement, without pulling with a towel or having another person force the joint.

Dose to individualise

Starting dose to individualise: 5–10 slow repetitions, 3–5 short sessions daily, within the permitted range.

When to reduce or stop

Reduce range and dose for sharp pain, wound tension or increased swelling after the session.

[Check this phase's restrictions and criteria →](#)

Exercises - continued



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Phase 3 · Usually weeks 6–12

Protected gait training

Use the prescribed boot and two crutches. Take short steps, applying only the permitted load through the operated foot. A physiotherapist selects the gait pattern for that restriction; ground contact does not mean full weight-bearing.

Dose to individualise

Short distances with rests; increase distance before speed. Do not abandon both crutches at once.

When to reduce or stop

Reduce distance and restore support if limping, pain or swelling increases.

Check this phase's restrictions and criteria →



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Phase 4 · From around week 12;
criteria based

Supported shallow squat

Once walking has recovered, stand at a counter with parallel feet. Move the hips back and bend the knees slightly, keeping both heels down. Limit depth to available ankle movement; do not force it.

Dose to individualise

For example, 5–8 slow repetitions; improve movement quality before adding repetitions.

When to reduce or stop

Heel lifting, foot twisting or joint pain indicates excessive range.

Check this phase's restrictions and criteria →

Who this protocol is for

Operative treatment of lateral, medial and posterior malleolar fractures. Account for posterior-fragment management, the joint surface and syndesmotomic stability.

Adults after fixation of a closed fracture. Open fractures, infection, neuropathy, vascular compromise, pilon injuries, cartilage repair and multiple injuries require a separate plan.

Before starting, confirm the operation date and extent, fixation, permitted loading, support-removal rules, range of motion and review date. Obtain any missing instruction from the surgeon before progressing.

Full programme by phase

01 · Protection and independence

Weeks 0–2

Goal	Safe transfers, swelling control and protection of the wound and fixation.
Weight-bearing	Follow the prescribed loading level exactly. If it is undocumented, contact the surgeon before increasing load; do not independently adopt weight-bearing as tolerated.
Support / immobilisation	Splint, cast or walking boot as discharged. Remove only when permitted.
Motion	Move the knee, hip and unrestricted toes. Move the ankle only after clearance to mobilise and remove the support; do not force it.
Work in this phase	Practise safe sit-to-stand transfers and short-distance mobility. Maintain thigh activation without resistance through the foot. Follow the individual thromboprophylaxis prescription.
Progression criteria	Wound and circulation assessed, swelling controlled, loading prescription understood and aids used safely.

See the exercise or activity for this phase →

02 · Movement with protection

Weeks 2–6

Goal	Restore gentle movement without jeopardising repaired tissues.
Weight-bearing	Early weight-bearing may be considered after stable fixation, often from the review around week 2; some patients are allowed to load earlier. Concerns about fixation, the wound or sensation require a longer protective pathway prescribed by the surgeon.
Support / immobilisation	Usually a removable walking boot when the wound and stability permit. Night-time use follows the surgeon's instructions; do not discontinue it independently.
Motion	Gentle active movement, initially dorsiflexion and plantarflexion. Add inversion and eversion only when cleared, particularly after ligament repair. Avoid forceful stretching and fracture-site mobilisation.
Work in this phase	Use short movement sessions several times daily. Continue hip and knee strengthening without foot loading. Practise gait within the prescribed load and avoid pivoting on the operated leg.
Progression criteria	Clinical and imaging review confirms maintained alignment, without worsening wound or increasing pain. Further resistance and loading progression have been authorised.

See the exercise or activity for this phase →

Full programme - continued

03 · Walking and strength recovery

Usually weeks 6–12

Goal	Gradual return to footwear and walking without a limp.
Weight-bearing	Progress only after clearance based on healing and stability. Move from two crutches to one, usually contralateral, then no aid, provided gait quality is maintained.
Support / immobilisation	Wean from the walking boot in stages once cleared. Choose supportive footwear; swelling may require a wider shoe.
Motion	Gradually expand active movement and, after healing assessment, gentle assistance. Do not force symmetrical angles at the expense of pain.
Work in this phase	Add light resistance and weight-bearing exercises within the loading limit. Start stationary cycling only when pedal loading and required motion are permitted. Increase one variable at a time.
Progression criteria	Walking in shoes without a significant limp, no marked next-day reaction, improving motion and strength, and healing adequate for further progression.

See the exercise or activity for this phase →

04 · Function and return to activity

From around week 12; criteria based

Goal	Restore limb control, stair function, endurance and task-specific capacity.
Weight-bearing	Full weight-bearing after clearance. Running, jumping and direction changes require confirmed healing, adequate strength and control, and no pain or swelling response.
Support / immobilisation	Usually supportive footwear. Additional bracing requires a specific indication and does not replace neuromuscular recovery.
Motion	Range sufficient for gait and functional tasks; persistent mechanical block, joint pain or increasing stiffness requires reassessment.
Work in this phase	Progress calf strengthening, balance and functional tasks. Before sport, assess both limbs, movement quality and endurance; symmetry alone is insufficient if both limbs are weak.
Progression criteria	Treating-team clearance, no fracture-site pain, safe stairs and work- or sport-specific tasks, without deterioration after loading or the following day.

See the exercise or activity for this phase →

How to adjust the dose

Increase one element at a time: repetitions, distance, range or resistance. Sharp pain, limping or markedly increased swelling calls for reducing the load. Check symptoms after exercise and the following day; discuss persistent deterioration. Absence of pain does not replace union assessment.

If the surgeon prescribes a kilogram limit, record the value and duration. Do not independently convert “as tolerated” into kilograms. Do not add weights without clearance for resistance.

Everyday activities and return to function

Walking and stairs

Use aids while needed to respect the load restriction and maintain gait quality. Practise stairs with a physiotherapist; choose a safer alternative when support or a rail is unavailable.

Driving

Resume only after assessment of rapid, forceful emergency braking and without medication impairing alertness. Operated side, transmission, bracing and loading restrictions affect the decision; discuss it with the treating team and consider insurance conditions.

Work, rest and swelling

Seated work requires opportunities to change position and elevate the leg; standing or manual work requires loading and task tolerance. Swelling may persist, but new or rapidly increasing swelling requires assessment.

Wound care and prevention

Do not soak an unhealed wound, remove wires yourself or change prescribed thromboprophylaxis. Follow individual medication, dressing, compression and scar-care instructions. Swimming requires complete wound closure and clearance.

Running and sport

Timing follows healing and capacity; it is not a stand-alone criterion. Establish safe gait, strength, balance and task tolerance first, progressing without significant next-day worsening.

Warning signs — when to seek help

Emergency help

Sudden shortness of breath, chest pain, collapse or coughing up blood: call emergency services. Use 112 in the EU; elsewhere use the appropriate local emergency number.

Urgent same-day assessment

New one-sided calf pain and swelling; increasing pain despite rest; fever with wound redness or discharge; wound breakdown; a new injury or pain after accidental loading.

Do not wait for a routine appointment

A cold, pale or blue foot, rapidly increasing numbness, loss of toe movement or severe increasing pain under a cast requires immediate emergency assessment.

Variants and clinical context

- This pathway excludes pilon fractures, arthrodesis and extensive cartilage reconstruction. Posterior-fragment size alone does not determine loading clearance.
- The treating surgeon must establish fixation stability. No implant protects against every overload.
- The WAX trial supports considering weight-bearing from week 2 in appropriately selected adults after ankle fracture surgery. It does not establish immediate unprotected walking for every patient.

Related resources

- [Lateral malleolus fracture with distal tibiofibular syndesmotic injury](#)
- [Bimalleolar ankle fracture — rehabilitation after fixation](#)
- [All published foot and ankle protocols](#)

References and evidence

Verified publications and evidence limitations

1. Early versus delayed weight-bearing following operatively treated ankle fracture (WAX): a non-inferiority, multicentre, randomised controlled trial. *The Lancet*. 2024. DOI: 10.1016/S0140-6736(24)00710-4.
2. Early Weightbearing and Range of Motion Versus Non-Weightbearing and Immobilization After Open Reduction and Internal Fixation of Unstable Ankle Fractures: A Randomized Controlled Trial. *Journal of Orthopaedic Trauma*. 2016. DOI: 10.1097/BOT.0000000000000572.

Research informs protection and progression decisions; it does not validate every illustrated exercise or example dose. Procedure details, tissue condition and the individual plan determine application.

Glossary

ROM

Joint range of motion. Active movement uses your own muscles; assisted movement uses additional help.

Non-weight-bearing

No body-weight transfer through the operated foot during standing and walking.

As tolerated

Once this pathway is authorised: loading limited by symptoms and movement quality within prescribed protection. It is not permission for unrestricted sport.

Walker

A walking boot is a protective ankle-foot support. A walking frame is a separate mobility aid.

Educational material. Version 19 October 2026. The individual postoperative plan takes priority.

Current online version: pobozy.org - open the protocol

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