



Ankle Rehabilitation with Wakefield Sports Clinic



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The ankle joint is one of the major weight bearing structures in the body. As a result of this function and partly due to its structure, the ankle is the most commonly injured joint.

Injury to an ankle can increase the risk of **re-injury** to as much as 40-70%. For this reason it is important to strengthen and stretch your ankle after injury to help decrease your risk.

Rehabilitating your ankle should be done sequentially. The usual step-by-step process of rehabilitation starts with non-weight bearing exercises, moving to resisted exercises, and then weight bearing activities, including balance, and finally agility.

Acute Stage: (Immediately after injury) **RICER No HARM** see:
http://www.smartplay.net/ouch/injury_manage/injury_info.html#ricer

The sub-acute stage:

- weight on the ankle to pain tolerance.
- graduated from partial weight-bearing with crutches to full weight-bearing without crutches.
- A normal walking pattern should be encouraged and there should be no limping.
- Ice treatment is discontinued
- compression bandages are continued to encourage the dispersal of swelling.
- When possible the ankle is elevated. Electrotherapy treatment is continued and augmented with gentle massage to encourage the dispersal of swelling towards the back of the knee.
- Ankle pumping exercises are continued and progressed to being done in water.

Exercises in water are effective because they involve only partial weight-bearing and because the hydrostatic pressure provided by the water has the effect of encouraging the swelling to disperse.

Range of Motion Exercises - Non Weight Bearing

Use these exercises to increase ankle range of motion after injury.

All exercises (except The Alphabet) should be performed in sitting with your legs fully extended, knees straight, out in front of you.

Dorsiflexion

- 1) Pull your foot back toward you (while keeping knees straight) by moving your ankle. Continue until either discomfort is felt or you can no longer pull your foot back.
- 2) Hold this position for 15 seconds
- 3) Return to neutral position
- 4) Repeat above steps 10 more times



Plantar flexion

- 1) Push your foot forward away from you (while keeping knees straight) by moving your ankle. Continue until either discomfort is felt or you can no longer bend your foot forward.
- 2) Hold this position for 15 seconds
- 3) Return to neutral position
- 4) Repeat above steps 10 more times



Inversion

- 1) Turn your foot inward by moving your ankle. Continue until either discomfort is felt or you can no longer turn your foot inward.
- 2) Hold this position for 15 seconds
- 3) Return to neutral position
- 4) Repeat above steps 10 more times



Eversion

- 1) Turn your foot outward by moving your ankle. Continue until either discomfort is felt or you can no longer turn your foot inward.
- 2) Hold this position for 15 seconds
- 3) Return to neutral position
- 4) Repeat above steps 10 more times



The Alphabet

- 1) Sit on a chair with your foot dangling in the air or on a bed with your foot hanging off the edge
- 2) Draw the alphabet one letter at a time by moving the injured ankle and using the great toe as your "pencil."

Isometric Strengthening Exercises

Do these exercises to strengthen the muscles around your ankle. This will provide added support to the joint.

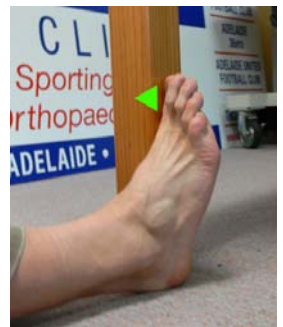
Eversion Isometrics

- 1) While seated place the outside of the injured foot against a table leg or closed door
- 2) Push outward with your foot into the object your foot is against (your ankle joint should not move) causing a contraction of your muscles.
- 3) Hold this muscle contraction for 15 seconds
- 4) Relax for 10 seconds
- 5) Repeat 5 times, increasing to 10 repetitions



Inversion Isometrics

- 1) While seated place the inside of the injured foot against a table leg or closed door
- 2) Pull inward with your foot into the object your foot is against (your ankle joint should not move) causing a contraction of your muscles.
- 3) Hold this muscle contraction for 15 seconds
- 4) Relax for 10 seconds
- 5) Repeat 5 times, increasing to 10 repetitions



Resisted Strengthening Exercises

These exercises will also work to strengthen the muscles around your ankle. This will provide added support to the joint.

Each exercise should be performed with a Theraband, around your ankle providing resistance to your movements. If you can not obtain a theraband, you can use a bicycle inner-tube or a towel around your ankle and provide your own manual resistance to each movement.

Dorsiflexion

- 1) Pull your foot back toward you, against the resistance of the theraband (while keeping knees straight), by moving your ankle.
- 2) Hold this position for 15 seconds
- 3) Return to neutral position
- 4) Repeat above steps 10 more times



Plantar flexion

- 1) Push your foot forward away from you, against the resistance of the theraband (while keeping knees straight), by moving your ankle.
- 2) Hold this position for 15 seconds
- 3) Return to neutral position
- 4) Repeat above steps 10 more times

Inversion

- 1) Turn your foot inward by moving your ankle, against the resistance of the theraband.
- 2) Hold this position for 15 seconds
- 3) Return to neutral position
- 4) Repeat above steps 10 more times



Eversion

- 1) Turn your foot outward by moving your ankle, against the resistance of the theraband.
- 2) Hold this position for 15 seconds
- 3) Return to neutral position
- 4) Repeat above steps 10 more times



Semi Weight Bearing Exercises

These exercises will help put more weight on the injured foot as well as strengthen it.

Seated Calf Raise

- 1) Sit in a chair with the injured foot on the floor
- 2) Lift your heel as far as possible while keeping your toes on the floor
- 3) Return heel to the floor
- 4) Repeat 10 times



Single Leg Stand

- 1) Stand upright while holding onto a stable object (table/chair)
- 2) Shift some of your weight onto the injured foot
- 3) Hold for the position for 15 seconds
- 4) Relax and put weight back onto non injured foot
- 5) Repeat 10 times



Full Weight Bearing Exercises

These exercises will help put more weight on the injured foot as well as strengthen it.

Single Leg Stance

- 1) Stand on the injured foot while raising the non injured foot off the ground
- 2) Maintain full weight bearing on the injured foot for 15 seconds
- 3) Return to resting position
- 4) Repeat above exercise 10 more times



Standing Calf Raise

- 1) Stand on only the injured foot
- 2) Raise up, standing only on the ball of the injured foot, lifting the injured heel of the ground
- 3) Hold for 15 seconds
- 4) Repeat above exercise 10 more times



Lateral Stepping

- 1) Place a rolled towel or short object on the ground
- 2) Stand with both feet to one side of the object
- 3) Step over the towel with the injured foot and remain on that foot
- 4) Then bring the uninjured foot over the object onto the same side as the injured foot and place it on the ground
- 5) Reverse the process and step over the towel in the opposite direction
- 6) Do 10 repetitions
- 7) Increase speed of above exercise as healing progresses



Lateral Jump

- 1) Place a rolled towel or short object on the ground
- 2) Hop over the towel and land on the left foot
- 3) Then hop back over the towel and land on the right foot
- 4) Do 10 repetitions
- 5) Increase speed of above exercise as healing progresses

Proprioceptive exercises: (balance)

Apart from mobilising and strengthening exercises, the rehabilitation for a sprained ankle can be greatly enhanced by practicing what are called proprioceptive exercises. These enhance neuromuscular control around a joint and are very important to the professional sportsperson. These exercises should be started as soon as pain allows.

Injury to ankles can often result in decreased balance ability. Towards the end of rehabilitation performing balance activities is an important way to prevent future injury. Proprioceptive exercises can be done while partial weight-bearing first, then progressed to full weight-bearing.

Single Leg Stance on a Towel

- 1) Fold a towel into a small rectangle and place on the ground
- 2) Stand with the injured ankle on the towel
- 3) Lift the uninjured leg off the ground standing only on the towel with the injured leg
- 4) Hold for 15 seconds
- 5) Repeat above 10 more times
- 6) As balance improves, increase stance time on injured leg up to 45 seconds



The patient balances on the affected leg for 1 minute, followed by rest periods to avoid muscular fatigue.

Aeroplanes:

- 1) Stand on the injured leg, keep it with a slight bend
- 2) Gradually lean forward, arms out for balance.
- 3) Swing the other leg back as a counter-balance
- 4) Hold for 30 seconds
- 5) Repeat five times
- 6) Variation: Lean back, lean to either side.



Rotations:

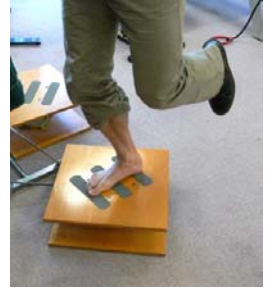
- 1) Stand on injured leg, keep with a slight bend.
- 2) Hold other leg straight out with toe pointed
- 3) Draw a circle with your toes around your injured leg
- 4) Three sets of 15 around and back
- 5) Variation: Eyes closed



Wobble Board:

Wobble boards are an unstable platform, often sprung, or with a curved bottom. There are various products available.

- 1) Stand on injured leg, slightly bent
- 2) Hold for 30 seconds, five sets
- 3) Gradually increase length and/or instability of wobble board.



Progressive strengthening of the muscles around the ankle should be continued, as should the proprioceptive exercises. To prepare for a return to functional activities the intensity of exercise should be increased.

- Once the patient is able to jog for a reasonable period without pain, you can begin a series of sport-specific agility and skill-based drills. Hopping pain-free on injured ankle for 50 repetitions is also another indicator used.
 - Straight runs
 - Straight runs with wide turning circle
 - Zig-Zags, etc.
- Progress to full training.

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The logo for Wakefield Sports Clinic features the word 'WAKEFIELD' in large, bold, yellow capital letters on a dark blue background. Below this is a red, stylized wavy graphic. Underneath the graphic, the words 'SPORTS CLINIC' are written in blue capital letters on a white background. Below that, the tagline 'The best care for Sporting Bodies. Leaders in Orthopaedics.' is written in red italicized font. At the bottom, the address and phone number '270 WAKEFIELD STREET, ADELAIDE • PH: 8232 5833' are written in white capital letters on a dark blue background.