

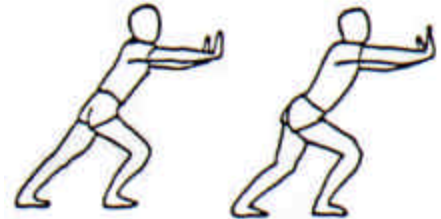


## Calf Strain & Contusion Rehabilitation

### Phase I

- A. Ice Massage before and after exercise and as often as possible between exercise sessions.
  - 1. Ice with knee extended and ankle dorsiflexed.
- A. Mild Lower leg & foot compression with wrap or compression hose for initial 48 - 72 hours.
- B. Intermittent compression, if available, 2 - 3 times per day.
- C. Non-steroidal anti-inflammatory medication (NSAID) as prescribed by physician.
- D. Mild muscle relaxant medication as prescribed by physician.
- E. Partial to full weight bearing as tolerated.
- F. Static calf & Achilles tendon stretching 5 - 8 times per day. Hold stretch for 10 seconds and repeat 5 - 10 times per session.

**Calf Stretch:** Stand 12" - 18" away from a wall with trunk and knees straight. Slowly lean into wall, keeping knees locked and heels on the floor. Slowly move heels away from wall as stretch becomes easier.



**Achilles Tendon Stretch:** Assume the same position described above. Bend both knees slightly, keeping the heels flat on the floor, and lean into wall. The stretch should be in the region of the Achilles tendon.

### Active Exercises:

**Ankle ABC's:** Using the big toe like a pencil, write the letters of the alphabet moving only the foot and ankle. Make the letters as large as possible. Repeat as often as possible throughout the day.

**Paper Pick-ups:** Crumple several pieces of 3"x3" paper into balls about the size of marbles. Place the balls of paper on the floor, using the toes, grasp one ball at a time, pick up and place in opposite hand. Repeat 20 - 40 times.



**Towel Push/Pull:** Lay out a towel on a smooth, slick surface and position the foot at one end. Curl toes to pull the towel toward the body without moving the heel. When the end of the towel is reached, use toes to push the towel away from the body. Progress by increasing repetitions or by adding a weight to the end of the towel.



**Stationary Bicycling and Swimming** are excellent rehabilitative and cardiovascular exercises. Build up to 30 minutes of continuous activity.

**Progress to Phase II when Phase I can be completed with little or no discomfort.**

### Phase II: 2 - 7 Days After Injury

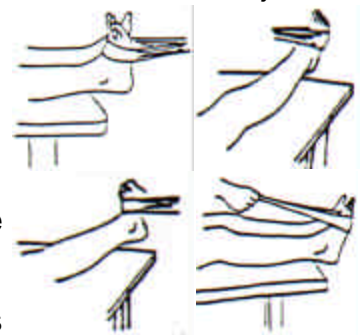
- A. Continue Ice Massage before and after exercise.
- B. Mild lower leg & foot compression with ace wrap or compression hose for weight bearing activities.
- C. Continue intermittent compression as indicated.
- D. Continue NSAIDs.
- E. Discontinue muscle relaxant medication as directed by physician.
- F. Begin ultrasound or electrical stimulation when danger of internal bleeding has passed (3 - 6 days).
- G. Continue previous static calf & Achilles Tendon stretching. Progress stretch as pain allows.
- H. Continue previous active exercises and add:

**Balance:** Stand on affected leg only, near an object that can be used to regain balance if you begin to fall. Perform this for 5 minutes. When it becomes easy, perform with eyes closed.

**Theraband® Resistance Exercises:** Perform 3 sets of 10 repetitions in each direction. Progress by increasing repetitions to 3x15, then to 3x20. Theraband® can be attached to an immovable object or held by another person.

**Inversion:** Loop band over ball and instep of foot. Turn ankle & foot (not leg) inward as far as possible. Repeat 30 to 60 times one time daily.

**Eversion:** Loop band over outside edge of foot just below the toes. Turn ankle & foot (not leg) outward as far as possible. Repeat 30 to 60 times one time daily.



**Dorsiflexion:** Loop band over top of foot at base of toes. Pull foot and toes up toward shin as far as possible. Repeat 30 to 60 times one time daily.

**ABC's:** Loop band around ball and sole of foot while holding ends of the band. Write ABC's with, moving only foot and ankle, as in #1. Perform 1 to 2 sets of the alphabet one time daily.

**CALF RAISES:** Stand with feet shoulder width apart and toes pointed forward. Left heels off of the floor as high as possible. Slowly lower heels to the floor and repeat as described below.



	Week 1	Week 2	Week 3	Week 4
Monday - Tuesday	3 x 10	3 x 10	3 x 10	3 x 10
Wednesday - Thursday	3 x 15	3 x 15	3 x 15	3 x 15
Friday - Saturday	3 x 20	3 x 20	3 x 20	3 x 20
	Both Legs	2 Legs, Toes Elevated	1 Leg	1 Leg, Toes Elevated

Begin stair climbing exercises as tolerated.

Progress to Phase III when 3x20 heel raises can be completed with little or no discomfort.

### **Phase III: Sport Specific Activities (5 - 21 days post injury)**

- A. Continue ice massage before and after exercise.
- B. Continue NSAIDs as directed by physician.
- C. Continue ultrasound/electrical stimulation as directed by physician.
- D. Continue Achilles Tendon & calf stretching.
- E. Continue Theraband® exercises.
- F. Progress difficulty of heel raises as previously outlined.
- G. Progress to normal activities:
- H. Begin walk or jog program as pain allows.
- I. Begin agility activities, such as carioca and zig-zag running as pain allows.