AAOS
American Academy of Orthopaedic Surgeons

Prepared for: _____

Prepared by: _____

OrthoInfo
Your orthopaedic connection to expert information about bones, joints, and muscles
www.orthoinfo.org

Foot and Ankle Conditioning Program

Purpose of Program

After an injury or surgery, an exercise conditioning program will help you return to daily activities and enjoy a more active, healthy lifestyle. Following a well-structured conditioning program will also help you return to sports and other recreational activities.

This is a general conditioning program that provides a wide range of exercises. To ensure that the program is safe and effective for you, it should be performed under your doctor's supervision. Talk to your doctor or physical therapist about which exercises will best help you meet your rehabilitation goals.

Strength: Strengthening the muscles that support your lower leg, foot, and ankle will help keep your ankle joint stable. Keeping these muscles strong can relieve foot and ankle pain and prevent further injury.

Flexibility: Stretching the muscles that you strengthen is important for restoring range of motion and preventing injury. Gently stretching after strengthening exercises can help reduce muscle soreness and keep your muscles long and flexible.

Target Muscles: The muscle groups of the lower leg are targeted in this conditioning program, as well as the tendons and ligaments that control movement in your feet. These include:

- Gastrocnemius-soleus complex (calf)
- Anterior tibialis (shin)
- Posterior tibialis (center of calf)
- Peroneus longus (outside of lower calf)
- Peroneus brevis (outside of lower calf)
- Soleus (calf)
- Dorsiflexors (ankle)
- Plantar flexors (ankle)
- Invertors (ankle)
- Evertors (ankle)

Length of program: This foot and ankle conditioning program should be continued for 4 to 6 weeks, unless otherwise specified by your doctor or physical therapist. After your recovery, these exercises can be continued as a maintenance program for lifelong protection and health of your feet and lower legs. Performing the exercises three to five days a week will maintain strength and range of motion in your foot and ankle.

Getting Started

Warm up: Before doing the following exercises, warm up with 5 to 10 minutes of low impact activity, like walking or riding a stationary bicycle.

Stretch: After the warm-up, do the stretching exercises shown on Page 1 before moving on to the strengthening exercises. When you have completed the strengthening exercises, repeat the stretching exercises to end the program.

Do not ignore pain: You should not feel pain during an exercise. Talk to your doctor or physical therapist if you have any pain while exercising.

Ask questions: If you are not sure how to do an exercise, or how often to do it, contact your doctor or physical therapist.

AAOS does not endorse any treatments, procedures, products, or physicians referenced herein. This information is provided as an educational service and is not intended to serve as medical advice. Anyone seeking specific orthopaedic advice or assistance should consult his or her orthopaedic surgeon.

Foot and Ankle Conditioning Program
STRETCHING EXERCISES

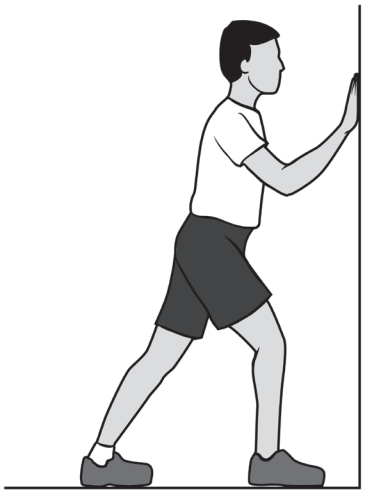
1. Heel Cord Stretch

Repetitions
2 sets of 10

Days per week
6 to 7

Main muscles worked: Gastrocnemius-soleus complex
You should feel this stretch in your calf and into your heel

Equipment needed: None



Step-by-step directions

- Stand facing a wall with your unaffected leg forward with a slight bend at the knee. Your affected leg is straight and behind you, with the heel flat and the toes pointed in slightly.
- Keep both heels flat on the floor and press your hips forward toward the wall.
- Hold this stretch for 30 seconds and then relax for 30 seconds. Repeat.

Tip	Do not arch your back.

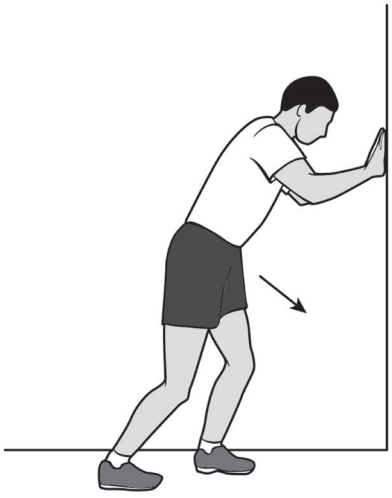
2. Heel Cord Stretch with Bent Knee

Repetitions
2 sets of 10

Days per week
6 to 7

Main muscles worked: Soleus
You should feel this stretch in your calf, the sides of your ankle, and into your heel

Equipment needed: None



Step-by-step directions

- Stand facing a wall with your unaffected leg forward with a slight bend at the knee. Your affected leg is behind you, with the knee bent and the toes pointed in slightly.
- Keep both heels flat on the floor and press your hips forward toward the wall.
- Hold the stretch for 30 seconds and then relax for 30 seconds. Repeat.

Tip	Keep your hips centered over both feet.

AAOS does not endorse any treatments, procedures, products, or physicians referenced herein. This information is provided as an educational service and is not intended to serve as medical advice. Anyone seeking specific orthopaedic advice or assistance should consult his or her orthopaedic surgeon.
© American Academy of Orthopaedic Surgeons

Foot and Ankle Conditioning Program
STRETCHING EXERCISES

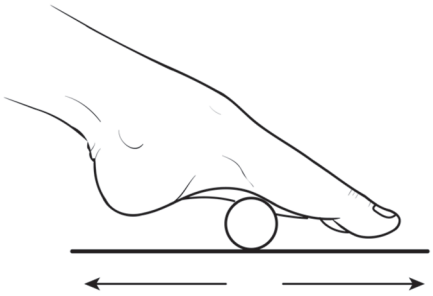
3. Golf Ball Roll

Repetitions
1

Days per week
Daily

Main muscles worked: Plantar fascia ligament
You should feel this exercise along the bottom of your foot

Equipment needed: Golf ball



Step-by-step directions

- Sit on a stable chair with both feet planted on the floor.
- Roll a golf ball under the arch of your affected foot for 2 minutes.

Tip	Sit up tall and keep your foot toward your chair.

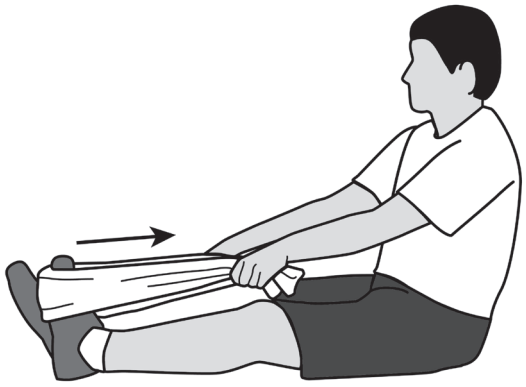
4. Towel Stretch

Repetitions
2 sets of 10

Days per week
6 to 7

Main muscles worked: Gastrocnemius-soleus complex
You should feel this stretch in your calf and into your heel

Equipment needed: Hand towel



Step-by-step directions

- Sit on the floor with both legs out in front of you.
- Loop a towel around the ball of your affected foot and grasp the ends of the towel in your hands.
- Keep your affected leg straight and pull the towel toward you.
- Hold for 30 seconds and then relax for 30 seconds. Repeat 3 times.

Tip	Sit up tall and keep your legs straight.

AAOS does not endorse any treatments, procedures, products, or physicians referenced herein. This information is provided as an educational service and is not intended to serve as medical advice. Anyone seeking specific orthopaedic advice or assistance should consult his or her orthopaedic surgeon.
© American Academy of Orthopaedic Surgeons

Foot and Ankle Conditioning Program
STRENGTHENING EXERCISES

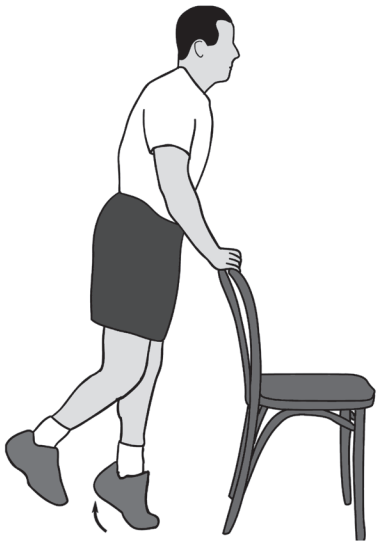
5. Calf Raises

Repetitions
2 sets of 10

Days per week
6 to 7

Main muscles worked: Gastrocnemius-soleus complex
You should feel this exercise in your calf

Equipment needed: Chair for support



Step-by-step directions

- Stand with your weight evenly distributed over both feet. Hold onto the back of a chair or a wall for balance.
- Lift your unaffected foot off of the floor so that all of your weight is placed on your affected foot.
- Raise the heel of your affected foot as high as you can, then lower.
- Repeat 10 times.

Tip	Do not bend the knee of your working leg.

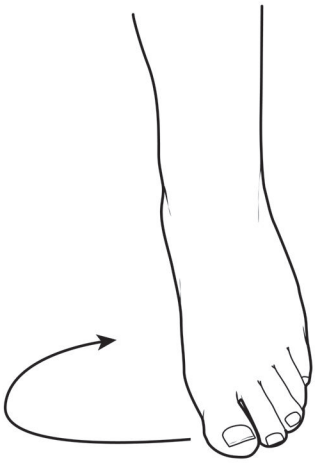
6. Ankle Range of Motion

Repetitions
2 sets

Days per week
Daily

Main muscles worked: Dorsiflexors, plantar flexors, invertors, evertors
You should feel this exercise at the top of your foot and throughout your ankle

Equipment needed: None



Step-by-step directions

- Sit down so that your feet do not touch the floor.
- Use your foot to write each letter of the alphabet in the air. Lead with your big toe.

Tip	Keep the movements small, using just your foot and ankle.

AAOS does not endorse any treatments, procedures, products, or physicians referenced herein. This information is provided as an educational service and is not intended to serve as medical advice. Anyone seeking specific orthopaedic advice or assistance should consult his or her orthopaedic surgeon.
© American Academy of Orthopaedic Surgeons

Foot and Ankle Conditioning Program
STRENGTHENING EXERCISES

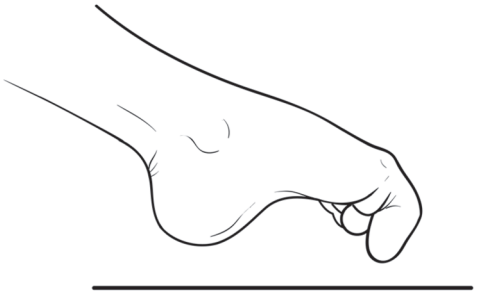
7. Marble Pickup

Repetitions
20

Days per week
Daily

Main muscles worked: Plantar flexors
You should feel this exercise at the top of your foot and toes

Equipment needed: 20 marbles



Step-by-step directions

- Sit with both feet flat and place 20 marbles on the floor in front of you.
- Use your toes to pick up one marble at a time and place into a bowl.
- Repeat until you have picked up all the marbles.

Tip	Do not place the marbles too far out in front or to the side.

8. Towel Curls

Repetitions
5

Days per week
Daily

Main muscles worked: Plantar flexors
You should feel this exercise at the top of your foot and your toes

Equipment needed: Hand towel

Step-by-step directions

- Sit with both feet flat and place a small towel on the floor in front of you.
- Grab the center of the towel with your toes and curl the towel toward you.
- Relax and repeat.

Tip	You can make this exercise more challenging by placing a weight on the edge of the towel.

AAOS does not endorse any treatments, procedures, products, or physicians referenced herein. This information is provided as an educational service and is not intended to serve as medical advice. Anyone seeking specific orthopaedic advice or assistance should consult his or her orthopaedic surgeon.
© American Academy of Orthopaedic Surgeons

Foot and Ankle Conditioning Program
STRENGTHENING EXERCISES

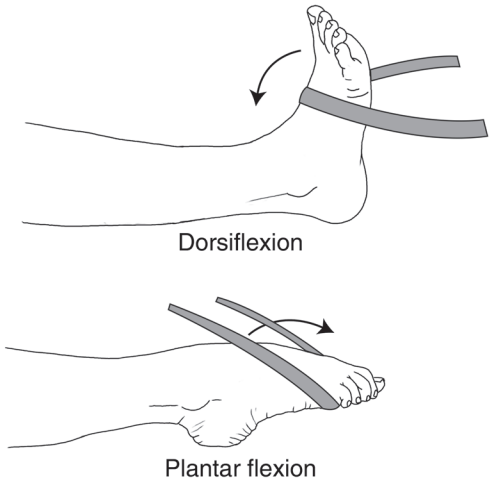
9. Ankle Dorsiflexion/Plantar Flexion

Repetitions
3 sets of 10

Days per week
3

Main muscles worked: Anterior tibialis, gastrocnemius-soleus complex
You should feel this exercise at your calf, shin, the back of your heel, and the top of your foot

Equipment needed: Use an elastic stretch band of comfortable resistance



Step-by-step directions

- Sit on the floor with your legs straight out in front of you.
- For dorsiflexion, anchor the elastic band on a chair or table leg, then wrap it around your foot.
- Pull your toes toward you and slowly return to the start position. Repeat 10 times.
- For plantar flexion, wrap the elastic band around your foot and hold the ends in your hand.
- Gently point your toes and slowly return to the start position. Repeat 10 times.

Tip	Keep your leg straight and heel on the floor for support.

AAOS does not endorse any treatments, procedures, products, or physicians referenced herein. This information is provided as an educational service and is not intended to serve as medical advice. Anyone seeking specific orthopaedic advice or assistance should consult his or her orthopaedic surgeon.
© American Academy of Orthopaedic Surgeons