Arch Pain

What is arch pain?

There are two arches in your foot. The longitudinal arch runs the length of your foot, and the transverse arch runs across the width of your foot. The arches are made up of ligaments, which keep the bones of your feet in place. Arch pain can occur in one or both arches but occurs most commonly in the longitudinal arch.

How does it occur?

Arch pain most often occurs as a result of overuse in activities such as running, hiking, walking, and jumping. People who have flat feet, or people whose feet flatten and roll inward when walking (a problem called over-pronation) are more prone to arch pain. Arch pain usually comes on slowly. However, it can occur suddenly if the ligaments are stretched or torn during a forceful activity such as sprinting or jumping.

What are the symptoms?

The symptom is pain along the arch of the foot.

How is it diagnosed?

Your health care provider will examine your foot for pain and tenderness along the arch.

How is it treated?

You should place ice packs on your arch for 20 to 30 minutes every 3 to 4 hours for 2 or 3 days or until the pain goes away. Your health care provider may prescribe an anti-inflammatory medication.

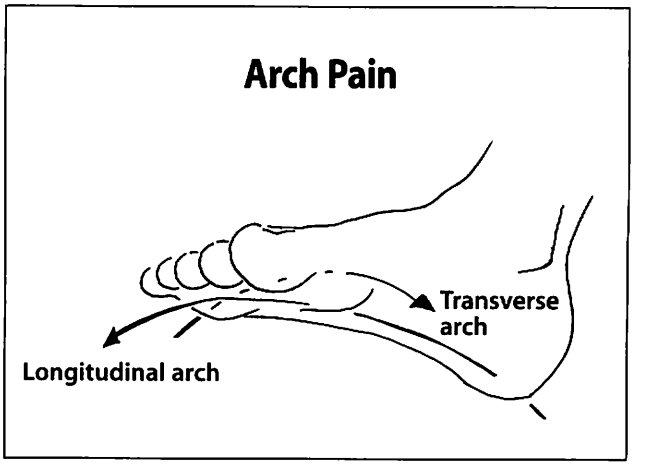
Your arch needs extra support. Taping your arch or using an extra arch support in your shoe may give you the support you need. Your provider may prescribe custom-made arch supports called orthotics.

When can I return to my sport or activity?

The goal of rehabilitation is to return you to your sport or activity as soon as is safely possible. If you return too soon you may worsen your injury, which could lead to permanent damage. Everyone recovers from injury at a different rate. Returning to your activity will be determined by how soon your foot recovers, not by how many days or weeks it has been since your injury occurred. In general, the longer you have symptoms before you start treatment, the longer it will take to get better.

You may safely return to your sport or activity when, starting from the top of the list and progressing to the end, each of the following is true:

- You have full range of motion in the injured foot compared to the uninjured foot.
- You have full strength of the injured foot compared to the uninjured foot.
- You can jog straight ahead without pain or limping.
- You can sprint straight ahead without pain or limping.
- You can do 45-degree cuts, first at half-speed, then at full-speed.
- You can do 20-yard figures-of-eight, first at half-speed, then at full-speed.
- You can do 90-degree cuts, first at half-speed, then at full-speed.
- You can do 10-yard figures-of-eight, first at half-speed, then at full-speed.
- You can jump on both feet without pain and you can jump on the injured foot without pain.



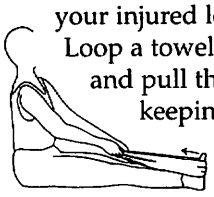
How can I prevent arch pain?

Arch pain can be prevented by wearing shoes that fit properly and have proper arch support. Stretching your feet and arches before your activity will also help prevent this injury. You may need orthotics. Some people will need to wear orthotics all the time and others only during sporting activities.

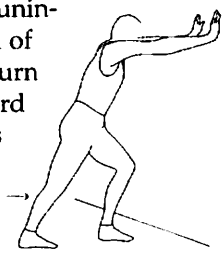
Arch Pain Rehabilitation Exercises

You may begin exercising the muscles of your foot right away by gently stretching them with the towel stretch. When the towel stretch becomes too easy, you may begin doing the standing calf stretch and plantar fascia stretch. Next, you can begin strengthening the muscles of your foot and lower leg by doing the rest of the exercises.

1. TOWEL STRETCH: Sit on a hard surface with your injured leg stretched out in front of you. Loop a towel around the ball of your foot and pull the towel toward your body keeping your knee straight. Hold this position for 15 to 30 seconds then relax. Repeat 3 times.

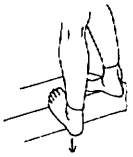


2. STANDING CALF STRETCH: Facing a wall, put your hands against the wall at about eye level. Keep the injured leg back, the uninjured leg forward, and the heel of your injured leg on the floor. Turn your injured foot slightly inward (as if you were pigeon-toed) as you slowly lean into the wall until you feel a stretch in the back of your calf. Hold for 15 to 30 seconds. Repeat 3 times. Do this exercise several times each day.



When you can stand comfortably on your injured foot, you can begin stretching the plantar fascia at the bottom of your foot.

3. PLANTAR FASCIA STRETCH: Stand with the ball of your injured foot on a stair. Reach for the bottom step with your heel until you feel a stretch in the arch of your foot. Hold this position for 15 to 30 seconds and then relax. Repeat 3 times.

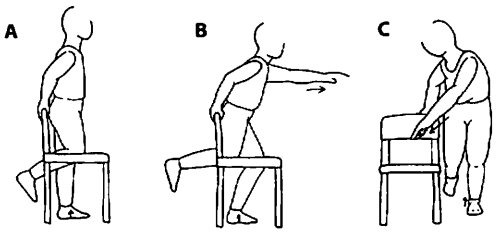


4. STATIC AND DYNAMIC BALANCE EXERCISES

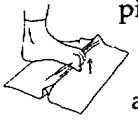
A. Place a chair next to your non-injured leg and stand upright. (This will provide you with balance if needed.) Stand on your injured foot. Try to raise the arch of your foot while keeping your toes on the floor. Try to maintain this position and balance on your injured side for 30 seconds. This exercise can be made more difficult by doing it on a piece of foam or a pillow, or with your eyes closed.

B. Stand in the same position as above. Keep your foot in this position and reach forward in front of you with your injured side's hand, allowing your knee to bend. Repeat this 10 times while maintaining the arch height. This exercise can be made more difficult by reaching farther in front of you. Do 2 sets.

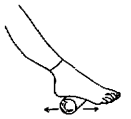
C. Stand in the same position as above. While maintaining your arch height, reach the injured side's hand across your body toward the chair. The farther you reach, the more challenging the exercise. Do 2 sets of 10.



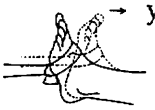
5. TOWEL PICKUP: With your heel on the ground, pick up a towel with your toes. Release. Repeat 10 to 20 times. When this gets easy, add more resistance by placing a book or small weight on the towel.



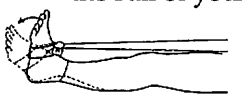
6. FROZEN CAN ROLL: Roll your bare injured foot back and forth from your heel to your mid-arch over a frozen juice can. Repeat for 3 to 5 minutes. This exercise is particularly helpful if done first thing in the morning.



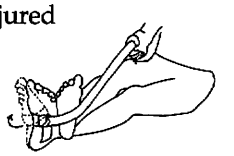
7. RESISTED DORSIFLEXION: Sit with your injured leg out straight and your foot facing a doorway. Tie a loop in one end of the tubing. Put your foot through the loop so that the tubing goes around the arch of your foot. Tie a knot in the other end of the tubing and shut the knot in the door. Move backward until there is tension in the tubing. Keeping your knee straight, pull your foot toward your body, stretching the tubing. Slowly return to the starting position. Do 3 sets of 10.



8. RESISTED PLANTAR FLEXION: Sit with your leg outstretched and loop the middle section of the tubing around the ball of your foot. Hold the ends of the tubing in both hands. Gently press the ball of your foot down and point your toes, stretching the tubing. Return to the starting position. Do 3 sets of 10.



9. RESISTED INVERSION: Sit with your legs out straight and cross your uninjured leg over your injured ankle. Wrap the tubing around the ball of your injured foot and then loop it around your uninjured foot so that the tubing is anchored there at one end. Hold the other end of the tubing in your hand. Turn your injured foot inward and upward. This will stretch the tubing. Return to the starting position. Do 3 sets of 10.



10. RESISTED EVERSION: Sit with both legs stretched out in front of you, with your feet about a shoulder's width apart. Tie a loop in one end of the tubing. Put your injured foot through the loop so that the tubing goes around the arch of that foot and wraps around the outside of the uninjured foot. Hold onto the other end of the tubing with your hand to provide tension. Turn your injured foot up and out. Make sure you keep your uninjured foot still so that it will allow the tubing to stretch as you move your injured foot. Return to the starting position. Do 3 sets of 10.