

## Lower Leg Pain

While every lower-leg injury has its specific biomechanical causes, all are rooted in tight calf muscles and relative weakness in the front leg muscles. What's going on is that your tight calves are pulling up on your heel, which in turn pulls the front of your foot down. This puts strain on the muscles in the front of your leg, which unfortunately are not strong enough to resist the pulling. Ouch.

This is very, very common in runners, since running tends to exercise the calf muscles more than those in the front. As a result, you may experience one or many of the injuries listed in this section. But fear not, a little rest and a lot of stretching and strengthening will fix you up and possibly make you a better runner, too.

Condition	Description	Likely Causes	Remedy
Anterior shin splints	Pain in the front and outer edge of your legs. If the strain continues, it is possible that micro-fractures may form in your tibia; these are stress fractures. There won't be a sudden break, just a gradual increase in pain until it becomes quite severe. If you have extreme shin pain, see a doctor for an x-ray. If you have only mild pain, it's probably shin splints (but if the pain does not respond to remedies after a few days, go to see a doctor; it may be a stress fracture after all).	While the root cause of shin splints are tight calf muscles and weak shin muscles, the injury may have been further aggravated by a variety of factors. Running on hard surfaces can put an added strain on your front leg muscles. You may have a foot that tilts in (pronates) or out (supinates) when you run, causing your front leg muscles to work harder to achieve foot stability. Or you may have developed flat feet, which you should treat separately. <b>Most likely, however, is that you're simply running too much.</b> Shin splints are very common among beginning runners, whose enthusiasm for their new sport has over-stepped the limits of their legs. Take a look at your running program; you may be doing too much too soon.	If you have a stress fracture, you should stop running immediately and see a doctor. Your injury will likely keep you off the roads for about six weeks, and depending on the severity of the stress fracture you may need a cast. Don't screw around with this, it's a serious injury. For shin splints, there are a number of steps you can take to speed recovery. First, to reduce the pain, ice your lower legs after you run. Use a commercial freeze-pack that you can wrap around your leg (or just put a wet towel in the freezer before you go out for a run). Keep the ice wrap on for ten to fifteen minutes, keeping your foot elevated. To help reduce the inflammation further, take aspirin or ibuprofen with food. Never take it on an empty stomach of before running. In the evening or at bedtime wrap a heating pad around your leg and put it on a low setting. Cut back on your running. If you can stand it, you might consider taking a few days off altogether. The important thing is not to run through the pain. You'll only make it worse. With all that extra downtime, you'll have plenty of opportunity to stretch your calves and strengthen your anterior leg muscles. Do wall pushups, and be particularly careful not to overstretch; ease into your stretches gradually. Do these several times a day, and especially before and after you run. To strengthen your front leg muscles, try the foot press and the furniture lift. You might have the wrong shoes. Check your feet to see if you might need more stability and/or cushioning. Also, try inserting heel lifts so that your calves don't have to stretch as far. You can buy these at your local drugstore, or use makeup sponges as a substitute. Finally, check to make sure you have good running form. In particular, be sure that you aren't leaning forward too much. If you slouch forward when you run, you may be pulling too hard on your calf muscles. If you try these suggestions, and your pain persists, see an orthopedist about the possibility of a stress fracture. If that's the problem, you may need orthotics to correct a foot imbalance. In general, though, keep in mind that shin splints, like many injuries, are basically an overuse injury. Listen to your body and back off when you begin to feel pain.

Condition	Description	Likely Causes	Remedy
Posterior shin splints	Pain on the inner side of your leg, right where the calf muscle meets the big shin bone. If the pain is severe, you may have strained this area enough to cause a stress fracture in the tibia. If this is the case you should see a doctor immediately.	You've strained a muscle that gives some support to the arch of your foot (the muscle runs from the shin bone around the ankle and attaches behind the ball of the foot). You probably have flat feet.	To ease the pain and reduce inflammation, ice your shins immediately after running. Use either a store-bought cold pack or simply freeze a wet towel before going out on a run. Whatever you use, wrap the ice pack around your leg and keep it on for 10 or 15 minutes, keeping your foot elevated all the while. Take aspirin or ibuprofen at mealtime to help reduce inflammation further. Definitely cut back on your mileage, maybe take a few days off from running. Whatever you do, <b>do not try to run through the pain</b> . You will only make your injury worse and could wind up with a stress fracture. Work on stretching your calf muscles. Do wall pushups several times a day, particularly before and after running, but be careful not to overdo it. Overstretching the calf can only do more damage. Ease into the stretch slowly and go only to the point where you begin to feel the muscle resist the stretch. There should never be discomfort. Also, follow the remedy for flat feet to give your arch a little extra support and ease the burden of your strained shin muscle. In particular, try wearing an arch strapping and a commercial arch support. If your pain persists, see an osteopath to find out if you might have a stress fracture.
Achilles Tendinitis	Pain in the lower calf along the Achilles tendon, the cord connecting the heel to the calf muscle. The injury is actually the swelling of the sheath within which the cord slides. When it becomes swollen, it creates too tight a fit for the tendon, and friction -- and pain -- are the results. To confirm that you have Achilles tendinitis, pinch the tendon starting close to the heel and working your way up toward the calf. If you feel some serious pain and maybe some swelling in response to the pinching, you've got Achilles tendinitis.	Your tendon is being pulled, and because tendons don't much like to stretch, you feel a lot of pain. There are two reasons it might be getting stretched. First, your calf muscle might be too short. Second, your heel might be too far from the calf muscle.	Reduce the pain and swelling by icing the area immediately after running. You can use either a store-bought cold pack or a frozen wet towel. Ice for 10 or 15 minutes. To reduce inflammation, take an aspirin or ibuprofen at mealtime. At other times (before bed, for example), soak the sore tendon in hot water. Lifting your heel up toward your calf will relieve the pull on your tendon. Try a heel insert in your regular shoes as well as your running shoes. You can purchase heel lifts in the foot section of many drugstores, or try using a makeup sponge as a substitute. You'll probably notice an immediate difference. Most important, though, you'll have to stop running for a few days. Give your tendon as long as it needs for the pain to go away. If you continue to run through the injury, you risk tearing the tendon, and then you're looking at real pain. The time you should take off will range anywhere from a few days to two weeks. And don't stretch during this period, either. Your tendon has already been yanked around too much, and stretching, at least at first, will hurt more than help. When you begin running again, pay special attention to stretching your calves with wall pushups and your hamstrings with the hamstring stretch (these stretches, incidentally, are the key modes of preventive maintenance for avoiding Achilles tendinitis in the future). Avoid running on soft surfaces which might let your heel sink in too much (e.g., sand). Ice your tendon after every run and put a heating pad (at a low setting) on the area in the evening and at bedtime. Incidentally, hill work is particularly aggravating to your injury. Cut way back on hills until the injury has healed, and then return to hill work only gradually.
Pain in the mid-calf	Dull aching pain in the middle of your calf. If the pain is low and near the heel, you may have Achilles tendinitis instead.	The soleus muscle, which runs between the two heads of the big calf muscle, often takes more of a beating than the larger muscle because it acts first when you use your calf muscles. This injury is an overuse injury, plain and simple, and one that may have been aggravated by too much hill work.	To help the pain, ice the area immediately after running. You can use either a store-bought cold pack or a frozen wet towel. Ice for 10 or 15 minutes. To reduce inflammation, take an aspirin or ibuprofen at mealtime. Stretching is the main prescription here. Do the wall pushups several times a day and especially before and after running. Also, try putting some heel lifts in your regular shoes as well as your running shoes. Back off on your mileage for a few days, and don't try to run through the pain. Give your legs a little time to mend.