

About The Author



Deborah Vogel has been active in the dance medicine field since 1978. She co-founded the Center for Dance Medicine in NYC with Dr. Richard Bachrach, and has presented workshops and lectures nationally on injury prevention and care. Her clients have included professional dancers and athletes, actors, vocalists and musicians.

Her articles can frequently be found in *Dance Teacher*, *Dance Spirit*, and *Pointe Magazines*. Deborah wrote *Tune Up Your Turnout: A Dancer's Guide*, and has co-authored a 3-level guide for teaching functional anatomy in bite-size pieces within a class format. Currently, she is on faculty at Oberlin College and the Oberlin Conservatory of Music.

CHAPTER ONE: ANKLES AND HEELS

Achilles Tendon Pain – Are 'Teacher Shoes' Necessary?

I am an "older" dancer/teacher and recently have been experiencing pain along the sides of my heels, just under my anklebone and towards the Achilles tendon. I have osteoarthritis in my knees so I have stopped doing big jumps. I am able to do petite allegro without much pain in my knees.

The pain I get in my heels is just to the sides of the Achilles tendon (in the space of about 1 1/2 inches), usually occurs in the morning and appears while walking down stairs. I know a lot of older dancers wear "teacher shoes" with heels, but I never felt grounded in those. I would love your advice. Thank you!

Deb's Answer

There are a couple different directions I'd like you to explore with this problem. You didn't mention whether the pain is greater after doing petite allegro, or perhaps you are teaching daily so there is never a time that you aren't demonstrating. The reason why I ask is petite allegro requires a lot from the soleus muscle which is a calf muscle that attaches below the knee and joins with the Achilles tendon to attach onto the heel bone. It contracts strongly when you do a bent leg relevé, and helps to control the descent into plié when you are landing from jumps. It also peeks out either side of the gastrocnemius (the soleus muscle is underneath or behind the gastrocnemius muscle). Open up this link to see a picture of the soleus muscle:

http://www.therunningdoctor.com/achilles_fig.jpg

Both the gastrocnemius and the soleus plantar flex the ankle, which is pointing the foot in dancer's terminology.

Early morning foot and ankle problems are sometimes caused by sleeping with your foot in plantar flexion (pointed), which is the way most people sleep. I don't know anyone that sleeps with his or her feet flexed! That

being said, it does mean that you are spending 6-8 hours with a shortened gastrocnemius and soleus muscle. If you are doing a fair amount of stretching to both those muscles during the course of the day there won't be a problem, but if you are like many teachers, me included, we demonstrate, and then walk around while our students are doing the plies and stretches that our bodies so desperately want to be doing.

So the first suggestion I have is to increase the amount of calf stretching you do with straight legs to stretch out the gastrocnemius, and a slightly bent knee, which stretches the soleus muscle. Besides the normal way to stretch your calves in a lunge, you might stand facing the wall; put a thick book a few inches away from the wall with the ball of your foot on the book. Do a small bend of the knee of the foot that's on the book as you use the wall to support yourself as you drop the weight through the heel and into the floor. Make sure the foot is totally relaxed as it is doing this stretch and you aren't allowing the foot to roll in towards the big toe. You'll feel the stretch lower towards the ankle and in the Achilles tendon area. Hold this stretch for at least a full minute, breathing, and constantly checking for tension as you are stretching. If the pull is too strong and you can't relax your foot completely, straighten your knee some or put a thinner book under the ball of your foot.

The other suggestion I'd like to make is to listen to what your knees are saying. Not knowing your particular alignment pattern, I don't know if you have a tendency to be hyperextended or lock your knees as those are patterns that create strain through the knee joint because the weight is not traveling efficiently from femur (thigh bone) to tibia (shin bone) If you ever feel your knees ache during a plié, observe when that happens. If it is when you return to standing then you need to look closely if you are going into a locked position. If it happens more at the bottom of the plié, then work to stretch the hip flexors (quadriceps and iliopsoas muscle) AND focus on soleus stretching as described before. If the soleus is tight it limits the depth of your