Common Knee Pain Cause #2: Low Ankle Mobility

In the last mail, we examined the most dangerous cause for knee pain, overtraining, or doing too much too soon. If you don’t give your body a chance to recover from training, it is only a question of time until injuries occur. In order to prevent your body from being injured you have to increase your training load slowly. Another important step you need to take to lower your risk of injuries is to ensure that your joints can move freely.

Two of the joints that should have a lot of freedom of movement are your ankles. In this mail, you will learn why having good ankle mobility is an important requirement for healthy knees. We will also look at how you can test your own ankle mobility and what you can do to improve it.

Why Does Ankle Mobility Matter?

If you look at the major joints in the human body, you can see a theme emerge. Every joint that offers a lot of freedom of movement has a neighboring joint that is more restricted. The ankles can be moved in many directions (mobile), but the knees only moves in one plane (stable). The next joint in the chain, the hip, again offers of a lot of freedom (mobile), whereas the lower back barely offers any range of motion (stable).

For our body to work the way it was designed to, we have to make sure that joints that need mobility stay mobile. If the mobility of these joints is restricted, the neighboring joints have to compensate. However, these neighbors are not designed for mobility, which is why the increased demands of mobility will eventually lead to an injury.

This is how a stiff hip will lead to lower back pain and how restricted ankle mobility will lead to knee pain. With that in mind, it’s obvious why you need to train for ankle mobility. If you lack ankle mobility, your knees will have to work overtime and will eventually become painful.
How you can test your ankle mobility
Ankle mobility can be measured in a number of ways, but in order to keep things simple we will only look at the one aspect of ankle mobility that is most neglected these days: ankle dorsiflexion. All you need to measure your ankle dorsiflexion is a piece of furniture or a wall. Place one foot perpendicular to the object and the other foot a little more than shoulder width behind it. Now try to touch the knee of the front foot to the object by bringing it over the toes.

You might not feel a stretch! In ankle mobility drills, you might not feel a stretch. The goal is to move the joint through its full pain-free range of motion gently, increasing the range of motion in the process. The two qualifiers to keep in mind are pain-free and gently!

The important point is to bring the knee forward on the outside of your big toe. Have your knee tracking somewhere over the second, third, or fourth toe. Don’t bring the knee towards the inside of your foot and don’t turn your foot out.
Test this: turn your foot out and then move your knee forward towards the object. The arch in that foot will collapse to some degree. You get more range of motion this way, which is why most people compensate by turning the feet out. Make sure that you don’t turn your feet out and always maintain the right angle between your foot and the object. A collapsed arch is bad news for athletes.

If you can easily touch the object without cheating, move your foot back a couple of inches. Repeat this step until you’ve found the distance at which you can barely the object. Mark the spot on the ground in front of your toes with some tape and then switch to the other foot. Hold on to the object for balance if you need to.

Place the toes of the other foot directly behind the tape and perform the same test. Is it easier for you to touch the object? Is it harder to touch the object? In both cases, you’ve discovered an asymmetry between sides, which you need to correct as quickly as possible by improving the mobility of the weaker side.

Ways to Improve Ankle Mobility
The simplest way to improve ankle mobility is by performing the dorsiflexion test we discussed. Do this drill once or twice per day, for twenty to thirty repetitions per side. Work the weaker side more often.

Knee Circles: Another Excellent Exercise

Another excellent exercise you can use to improve your ankle mobility is knee circles. Knee circles will improve strength and range of motion in the ankle. When you’re first starting out with this exercise, you can do it with a yoga block, a box, a rolled up towel, or something similar. Stand with your feet a little less than hip-width apart and pointing forward. Your feet have to stay planted throughout this whole exercise, so pay attention that you don’t compensate by turning your feet out. Next, trace a half circle
with your knees without moving your hips much. Your ankles and hips should stay stationary during this drill.

Move your knees out to the side as far as you can and in front of you as far as you can. Notice if you are having more difficulty on one side or if there is any restriction of movement. One side may have more range of motion and an ankle you have injured in the past may have lower ROM. Work to create balance between both sides.

**Move slowly and don’t force extra range of motion.** Just like the other drill, this exercise should not be painful and you likely won’t feel a stretch. The goal is to release joint restrictions gently, while teaching you how to move from the hip and ankles.

Remember to keep your feet parallel throughout the exercise. Don’t exert too much pressure on the object between your knees, but learn to move both knees in a synchronized fashion. You can do this drill without the box once you’re more advanced. Remember to keep your knees equidistant when performing the advanced variation. Don’t forget to keep your feet and hips stationary.

**Now go ahead and do twenty or thirty reps.**

**Integrating ankle mobility in your training**

You can do the ankle mobility drills before your training, but you can also do it in the morning and in the evening. I recommend you do at least one of the two exercises for 30 repetitions each day. After a recent ankle injury, I did 100 reps of knee circles in every direction once per day and it helped tremendously with restoring ankle ROM.
Conclusion

Having good ankle mobility is an important requirement for healthy knees and time spent improving ankle mobility is always time well spent. Concentrate on fixing asymmetries between sides and then work on range of motion.

To strengthen your ankles as much as possible you really need to work on all aspects of ankle mobility. Additionally, a number of factors, like the wrong footwear, will slowly ruin your feet and ankles if you let them. To learn more awesome exercises for ankle mobility, how shoes can wreck your knees, and all other dangers for your knees, you should check out my book Total Knee Health. This book gives you the detailed blueprint for healing quickly and thoroughly.

In the next mail, we will investigate why restricted hip mobility can cause knee pain and what you can do about it. For now, just go ahead and practice the ankle mobility drills.

Until next time,

Martin Koban

More about the Author

I'm a personal trainer from Germany. Knee pain became a topic for me a long time ago, but when my brother tore his meniscus in 2009, I realized that I needed to learn much more.

I started fix-knee-pain.com in 2011 to provide a high quality online resource on knee health and to date it has helped over 400,000 people.

In 2012, I decided to write a book on knee health after perusing the available literature on the topic and discovering that in them many important factors are completely ignored. I came up with a concept that covers all requirements for healthy knees, allowing total knee health and fastest healing.