What Your Doctor Isn't Telling You About Runners Knee And Chronic Knee Pain (And The 5 Keys to Fixing It)

by Alexander Heyne edit



Dangit, My Knee Is Hurting Again

For years and years I had chronic knee pain and runners knee – even though I wasn't a runner.

I didn't run long distances. I wasn't overweight. And I didn't even eat an unhealthy diet – which is why I was a little puzzled as to why I was suffering from chronic knee pain.

I had pain for about 3-4 years, and around the 4th year is when I started weight lifting and doing leg exercises.

But the pain started getting even worse and led to overuse injuries like tendinitis and chondromalacia.

So I did what everyone does – I went to the doctor.

... And he was pretty much as useless as can be. He wasn't exactly well-versed in sports medicine and just told me to "stop doing what hurts" and "ice it." Stuff I could've Googled without a \$50 co-pay.

So like most people do, I ignored it. A few months later I joined the college crew team and we started to train 5-6 days a week, which included running, and later, a lot of pain for me.

I asked some other people on the team what was going on, and another guy said, "Got that hollow feeling under your knee? Yeah man me too, knees are weak, ya know? It's just that damn runners knee."

"Knees are just weak? BS." I thought to myself.

Interestingly enough, I hear this "shoulders are unstable," "knees are weak," garbage all the time. How could a body part so essential to daily life (like a knee) be inherently weak? How could be it so prone to injury? Obviously, people before us weren't training like pro NFL guys, but come on.

Through later research and many years of testing, what I found was pretty interesting and also permanently fixed my knee pain.

For many of you – this guide may fix your chronic knee pain and runners knee, or dramatically alleviate the symptoms and pain.

I know that's a bold claim seeing as many of you ice your knees on a weekly basis, tape them, massage them, or have been told you need a knee replacement, but I'm hoping that this will open up your mind to a deeper understanding of your joint health.

The Bee's Knees – Knee Anatomy 101



To help you understand exactly how the knee was *designed* to work, let me give you a brief intro on knee anatomy.

The bones – Above the knee is the femur; below the knee are the Fibula and Tibia. In-between everything there are four ligaments that hold it all together and keep it loaded properly.

The tendons – Above the knee (attached to your quad muscle) is the quadriceps tendon; below the knee (linked to your kneecap) is the patellar tendon. This is usually the area you feel "hollowness" in (chondromalacia) if you do too much mileage running or have bad form/loading patterns.

The ligaments - There are four ligaments – think back, front, left, right. That's pretty much a dumbed down explanation of the ligaments. They basically restrict movement and make sure everything stays lined up properly. If it doesn't, you are putting weight on the knee in a way it was not designed to load weight (and thus having pain, and injury)

Meniscus – Some padding in the center of the knee to function as a shock absorber.

The knee is a stability joint. It is not meant to be very flexible.

It is meant to just bend straight up, and straight down, with very little rotation.

That is all fine and dandy, but there are a couple problems that lead to the knee *not* bending straight up and down, but rotating. What I've found is that tendonitis, like in many other parts of the body, is usually do to improper biomechanics (movement and form), rather than just overuse.

With knees it could be the case that you are a long-distance runner, but in my experience (after having this for years) I've found that tendonitis usually only happens in one knee (or in one elbow, or shoulder, or bicep), and it will happen repeatedly. In other words, it's a pattern.

And after much research I found that these patterns are usually linked to poor biomechanics. Once you fix those, you stop getting it as much (or it improves/goes away completely).

You Might Have Knee Pain And Runners Knee If...



There are a couple criteria I've noticed in people with knee pain. I'm not going to state the obvious like being overweight, getting too much exercise, etc. We all know that excess weight is excess weight. And we all know that running 100 miles is a lot for anyone.

A. You have everted feet (feet that point outwards)

Why: Foot eversion is one of the many ways that your body compensates for having terrible alignment, usually caused by muscle imbalances, activation issues, tightness, etc. It's your body's attempt at still somewhat maintaining proper

biomechanics. It's like if you injure your knee, when you step down the stairs you try to use your hip more to compensate. If your feet are everted more than 10-15 degrees, it's *very* unlikely that you knee is loading weight properly.

B. You have previously injured an ankle or a hip.

Why: Studies have shown that if have an injury (e.g. ankle), it tends to decrease your proprioceptive abilities after that. In other words, if you injure your ankle, you can't balance on that ankle as well afterwards. You need some re-training and conditioning. Remember that the knee is just at the mercy of what happens around it: if the ankle or hip has lost flexibility, that has to go somewhere, and the knee suffers.

C. You sit all day and started exercising again, or started exercising more frequently (tight hips and groin muscles anyone?)

Let's face it, sitting sucks, and it is part of this chronic pain epidemic. Sitting by itself isn't the culprit, but sitting (and lack of movement) is one of the origins of tight muscles and tissues around the hips.

What I've found is that, due to a combination of things, the shortening of certain muscles prevents the lower back from maintaining it's natural arch, leading to chronic lower back pain (just when sitting, or even when running, squatting), as well as knee pain.

[Side note: I've written a three part guide for how-to fix chronic lower back pain. Oh, and these are things THAT ACTUALLY WORK. Unlike 999999% of the crap on the internet. Use this post for immediate relief, and then this one and this one to understand and prevent it in the future.]

The Master Plan (The 4 Part System to Fix It)

Alright, I've found that 4 things are the most critical in fixing knee pain / runners knee and again I have used this exact process to step by step fix my chronic knee pain:

- 1 Work on your booty (Strengthen those butt muscles)
- 2 Improve hip flexibility
- 3 Improve ankle flexibility (history of everted feet, achilles injuries, shin splints?)
- 4 Trigger point therapy & self myofascial release (self massage)

Let's start talking about each one and why they are absolutely critical to preventing knee pain in the future.

A. Work That Booty! The Biggest Thing You Can Do To Fix Knee Pain is Strengthen Your Butt – Here's Why

I was *terminally skinny*. My entire life. I'm talking, 145 pounds at 6 foot 2, skinny.

When I started doing butt exercises (to fix my knee pain) I put *over three inches on my butt in about 9 months*.

Talk about a booty. And yes, women loved it.

But seriously, I'm going to show you right now why your butt is so important in regard to knee pain, and why so many of us need to work on that.



Gluteus maximus. Notice the attachment points going down the side of the leg towards the knee (IT Band area). Wikipedia

Gluteus maximus. What does that make you think of? (As a kid I always thought that was a cool name like *Leonidas*. *Leonidas Maximus.*)

Your glutes are the powerhouse of your lower body. Many people seem to think that the quads are, because we live in a quaddominant world where everyone has tiny butts from sitting all day and lack of activity.

But believe it or not, the gluteus maximus is really the central strength point of your lower body. That's where real power and strength originate from.

In your case, **the gluteus maximus also helps control rotation of the femur (your upper leg) which influences your knee alignment.**

Remember what we talked about earlier? Your knee is designed to just bend up and down, with *verrrry little rotation*.

A weak butt permits more rotation in the femur than usual. It causes the your upper leg (the femur) to rotate inwards, and the fibula and tibia will try to compensate by rotating outwards and rotating the feet outward. Ideally your knee would point straight forward, and the foot would load the weight evenly, so when you look at your leg as you walk, it would just bent straight down.

Try this! Just take 30 seconds and walk around your house naturally – my own knee (the one with a history of trouble) slightly rotates inward with each step. Bad!

In fact, a study done supported this whole glute-knee pain relationship, which found that female runners with the lowest glute activation had the highest rates of knee pain and chondromalacia.

It's also a win-win that no matter if you're a man or a woman, getting a bigger, firmer bootay will only be a win-win situation. I made a nice little video for you below, showing the exercises to do. I would suggest doing 4-5 sets of each exercise for 8-12 repetitions, 2x a week if you find the time. They don't take too long.

Butt Exercises (see video)

- Glute bridge
- Bird dogs
- Lunges
- Single leg deadlift

B. Work On Your Splits & Stretch the Hips



The muscles surrounding the hips have lots of shared attachment points with the femur, and the knee.

Alright – so the first thing you absolutely need to do is work on getting that booty built up. Your girlfriend/boyfriend/husband/ life will love it, AND you'll also fix that knee pain. It's really really important, and it will also help if you have chronic lower back pain.

But that's not all.

You also need to improve hip and ankle flexibility – here's why. **The knee is a stability joint, meant to just bend up and down (and not rotate much). When there is not enough flexibility in the hips or ankles, that rotation has to go somewhere when you engage in some movements, and the knee starts getting rotation which = pain, dysfunction, and injury.**

The hip muscles are closely linked to the gluteal muscles, in regard to how they influence your walking gait, leg rotation, etc. The hips (and the ankles) are also designed to be flexible.

We can compare the hips and shoulders for a second, because they are both ball and socket joints, and thus are designed to be flexible.

Say you're running on a track, or jumping, or lunging, or running left and right through an obstacle course – there is obviously some left and right motion (and rotation) going on there. Ordinarily the ankles and hips will bend and rotate to accommodate that change in motion.

But if your hips are too tight, and your ankles too inflexible, the knee is being forced to be flexible which = baaaaad.

We already established how important your butt is, and having proper gluteal activation right?

As it turns out, **having tight hip flexors prevents maximal glute activation too.** Some people find out that they have weak abs, and tight hip flexors, when they go into a deep squat and feel it more in their hip flexors and quads rather than their butt. So we're going to include a bit of hip flexor stretching in this part as well.

The video below will show the hip and groin stretches that I recommend.

Hip & Groin Exercises (see video)

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occurred.</h1><div class="submessage"><a href="http://
www.youtube.com/watch?v=JJlFWzXslw4">Try watching this video on
www.youtube.com

- Hip flexor stretch
- Front lean split stretch
- Side kung fu stretch

C. Improve Ankle Flexibility

Your feet and ankles are the bottom of your kinetic chain. If your ankle is not loading weight properly, that messes up everything above it.

Unfortunately we live in an era where foot and ankle dysfunctions are rampant.

One massively common dysfunction today is called pronation distortion syndrome — characterized by foot pronation (flat feet) and internally rotated knees.

People who have this (and believe me, it's a large percentage of us) typically suffer from the same, repeated lower body injuries, like: Plantar fasciitis, shin splints, patellar tendonitis and lower back pain.

This is due to a lot of things, but the reasons for improving the flexibility of the ankles are the same: remember that the knee is meant to be stable, not flexible, and that ensuring ankle flexibility will make sure that it transfers any load rather than passing it to the knee.

Here are 3 ankle exercises I recommend.

Ankle and Calf Exercises:

Calf Stair stretch (2 sets of 30 seconds on each side)



Strap Calf Stretch (2 sets of 30 seconds on each side)



"Lean in" calf stretch (2 sets of 30 seconds on each side)



Part D. Stretch Those Quads



Alright, remember back up in part 1, how the knee has a couple tendons and ligaments attached to it?

On top of the knee is the quadriceps tendon — basically the top, center part of the leg going down to your knee cap.

By stretching that area out it will relax some tension throughout the knee, and will also reduce some symptoms for those of you with IT band issues or pain around the outside of the knee (more so if it hurts or is tight right around the knee).

Quad Exercises (see video)

- Standing quad stretch (2 sets 30 seconds each side)
- Enhanced quad stretch (2 sets 30 seconds each side)

Part F. Fix Tension: Trigger Points & Myofascial Release

Unfortunately the internet is filled with a whole bunch of garbage. For knee pain, most of the websites list the same crappy exercises and stuff – which usually just is the same stretches over and over (hip flexor, hamstrings, IT band stretches, blah blah).

I've tried them all, and most of the stretches that people recommend (by themselves) didn't provide more than a few minutes of relief to me. Take it for whatever it's worth.

It's gotta be a multi-faceted program to try and **re-establish proper biomechanics – remember, that's what this is all about.**

Stretching is great for short term relief, and I've found it to work sometimes, but without strengthening weak and inactive muscles (like your butt), I hasn't provided much long-term relief for me. But that's just my 2 cents.

In any case, I have previously talked about my success with using trigger point therapy and the Egoscue method to beat chronic back pain (in combination with stretching, myofascial release, strengthening muscles, etc.). The same is true for fixing your knee pain. There are a number of trigger points that develop around the knee and quad which you can self massage into oblivion, providing fantastic relief from pain. Stretching doesn't fix trigger points necessarily. Here are the exercises I recommend (Myofascial release – obvious short term relief; trigger points – maybe not so obvious).

<u>Myofascial Release (see video)</u>

- For quads (2 sets of 30 seconds on each side)
- For IT band (2 sets of 30 seconds on each side)
- For calves (2 sets of 30 seconds on each side)

Trigger Point Therapy for Knee Pain (see video)

- Vastus Medialis (massage throughout the day, 10-15 deep, slow strokes each time)
- Vastus Lateralis (massage throughout the day, 10-15 deep, slow strokes each time)
- Rectus Femoris (massage throughout the day, 10-15 deep, slow strokes each time)

Part G. Tendinitis, Chondromalacia, etc?

Usually a pretty good indicator that you are doing some kind of activity with improper form or bad biomechanics is tendonitis. If you go to a doctor, he/she will tell you it's an overuse injury and to just rest. But if you go to a sports person, they'll tell you to fix your form and lay off it when it hurts.

I'm inclined to believe "overuse" injuries are more form related than anything (unless you really are training 7 days per week, or multiple hours a day).

For example, I've gotten tendonitis in my left knee, as well as in my left elbow (as well as bicep). These areas seem to repeatedly get it, despite the fact that I do equal volume on both sides of my body. And I know that my left side has some bio-mechanical issues. Whatever the case, many of us get injuries in patterns. Maybe for you the story is similar.

The origin doesn't matter honestly, because the advice is the same: even though I know you probably won't, you need to rest tendons for them to heal. They have very little vascularization, which is why healing takes forever.

But for those of you that are active, athletes, or love what you do... I know you aren't going to take time off. So here's what you do.

A. **Reduce your volume a bit.** Whatever it is – weightlifting, tennis, construction – just do less of it. Stop doing the things that hurt. If you play tennis 3 hours a day, play it for 1.5 hours. If you usually curl 30 lb dumbells and you have biceps tendonitis going down into your forearm, suck it up and curl 15's. If you usually do 100 lunges, do 50. If you usually run 30 miles a week, cut that in half.

B. With that extra time, fix your form and biomechanics.

Fixing biomechanics usually has a couple key things (that we covered here, but also cover in the back pain course, the weight loss course, and **in the monk's courtyard).**

- 1 Stretch the shortened muscles (improve flexibility around joints e.g. stretch the hips)
- 2 Strengthen weakened muscles (e.g.strengthen your butt)
- 3 Use massage methods like trigger point therapy and myofascial release to fix aches and pain (e.g. massage the trigger points along the IT band and quads)
- 4 Fix biomechanics using methods like the Egoscue method, and the Gokhale method

I've found that specific types of exercises and weightlifting repeatedly gave me tendonitis, and as soon as I closely evaluated my form (like on squats, dumbell curls, etc.), I stopped getting tendonitis. But if I became sloppy again or increased the weight too much, it would start burning and coming back in the exact same spots.