RUN TO THE FINISH

ULTIMATE IT BAND SOLUTION

amanda BROOKS

A RUNNER'S PERSPECTIVE:

IT BAND SYNDROME

TREATMENT, PREVENTION AND RECOVERY

ULTIMATE IT BAND SOLUTION

NOT FOR SALE

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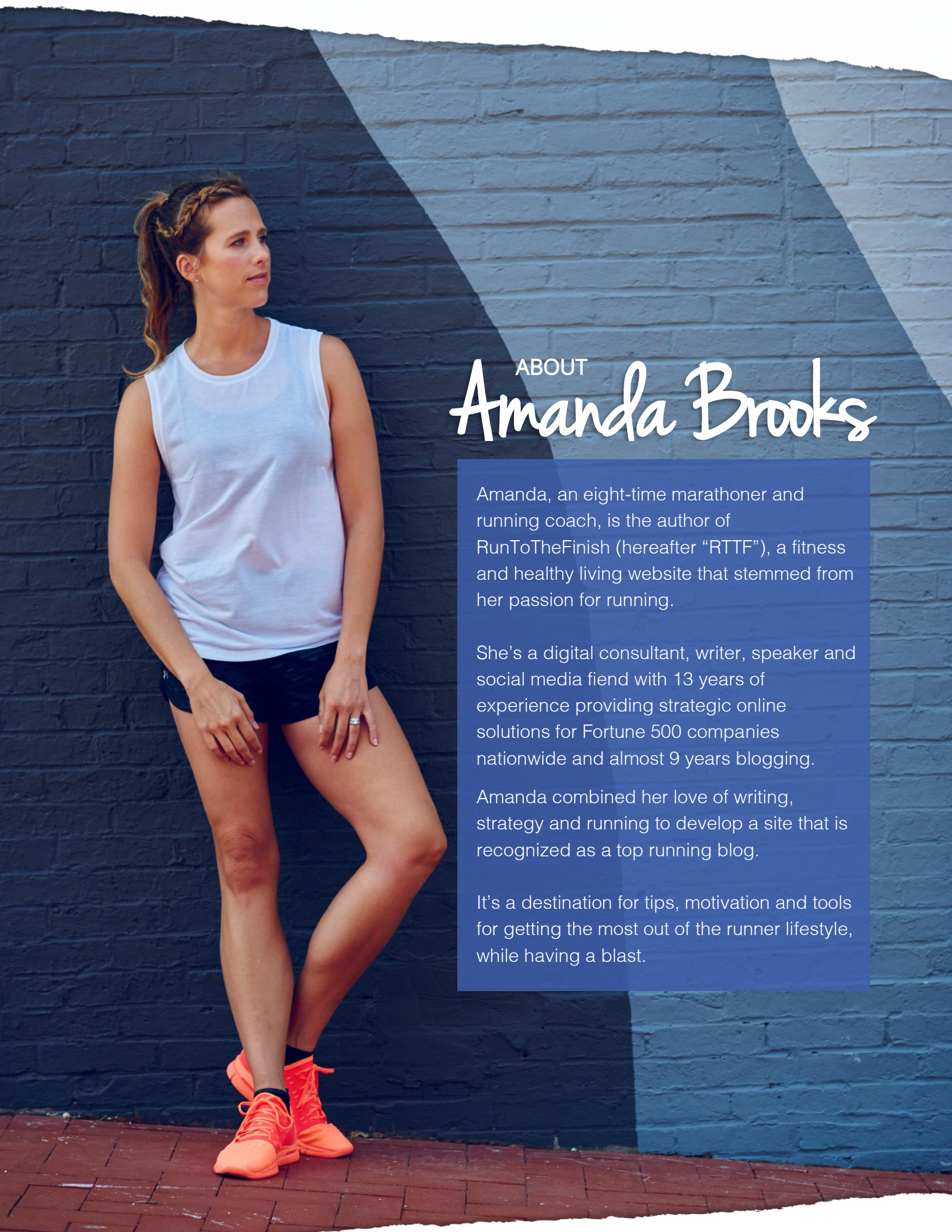


ABOUT Amanda Brooks

Amanda, an eight-time marathoner and running coach, is the author of RunToTheFinish (hereafter “RTTF”), a fitness and healthy living website that stemmed from her passion for running.

She’s a digital consultant, writer, speaker and social media fiend with 13 years of experience providing strategic online solutions for Fortune 500 companies nationwide and almost 9 years blogging.

Amanda combined her love of writing, strategy and running to develop a site that is recognized as a top running blog.

It’s a destination for tips, motivation and tools for getting the most out of the runner lifestyle, while having a blast.

INTRODUCTION

It's inevitable when you surround yourself with runners. You indulge fantasies of shiny new PR's, crushing new distances like a boss and oh yes, the ultimate prize – Boston Qualifying.

Even as someone who doesn't care much about speed, I allowed the achievements of others to guide my goals. I became eager to achieve that "ultimate goal" and prove myself as a runner.

> *Years of running and life, would help me realize I'd been a runner for many years regardless of any finish time. I was a runner because I showed up. On the good days, the bad days, the easy days and the utterly unfathomably hard days.*

Fists in the air, a smile to light a building, I danced across my first marathon finish in Oklahoma City Marathon in 4:17. With that time it didn't seem wildly outrageous to aim for Boston. So I turned my attention to speed, speed, speed and nothing else.

After a few months of pushing my body without any great training or logic, a sharp pain begin radiating down my leg. It came on within the first few steps of any run. I ranted, I cried, I tired RICE.

Frustrated and before the days of WebMD, I went to an actual sports medicine doctor.

The result: Iliotibial Band Syndrome (ITBS).

One of the most common overuse injuries among runners.

The iliotibial band is a ligament that runs down the outside of the thigh from the hip to the shin and attaches to the knee. It helps stabilize and move the knee.

The IT Band can become tight or inflamed through a number of issues which we will discuss and provide resolutions for in the following sections. Any IT Band issues can impair knee movement and create severe pain, which prevents more than just running activities

My first injury after four years of running was textbook: too much, too fast, too soon.

Continuing my streak of stupid choices, I followed the age old plan of "ignore it and push through". Isn't that what distance runners do?

My grand plan, lead to such intense pain that eventually I couldn't walk, which led to a three-week hiatus from running in the month prior to my attempt at qualifying for the Boston Marathon.

RACE DAY MAKES IT BAND SYNDROME WORSE

Weeks later and against all the words of caution I'd received from experienced runners (and my own better judgment), I lined up at the Rock N' Roll San Diego Marathon.

Miles one through twelve, I glided along, congratulating myself on having recovered like a champ. What was I worried about?

> *Mile 13 we began running up a cambered highway, which is a fancy way of saying slanted road and a not so fancy way of saying,* ***one of the issues that cause runners IT Band trouble****. Running consistently on a slanted road, creates imbalances and the moment I began recreating that motion, mine slammed on the brakes.*

My IT Band began to scream. It wasn't whispering, "*slow down*." Rather, it threatened, "*If you don't quit this very instant, I'll make you pay*."

But I'd trained for months! I couldn't possibly quit.

I thought I'd try to just walk for a bit.

At first I maintained a fifteen-minute mile, but the IT Band pain changed my emoji from a grin to a red angry face. Eventually, I limped along in an awkward motion of keeping my leg straight and swinging it out in front of me with each stride, as that seemed the least painful way to move.

Each step taken through gritted teeth eventually slowed to a twenty-two-minute mile—a new record (in the wrong direction).

But I *finished the race.*

In the moment, I felt victorious. I'd pushed through and persevered. Even without a Boston Qualifying time, I'd clearly proven myself as a "real runner".

Sigh….

My failure disguised as success was a wake-up call to my invincibility and eventually required me to put my pride to the side if I ever wanted to run healthy again or shoot even just run.

INJURED RUNNERS GET SMARTER

Good runners listen to the signals their bodies send because running is never about just one race; running is about a *lifetime* of enjoying the miles. And as I learned that day, pushing too far doesn't just mean one poor finish. It means six months of no running and *lots* of physical therapy.

Over the next few years, I battled an ongoing war with my IT Band.

My knee felt better, then suddenly worse. My ITBS was great, and then suddenly I was in tears, back at the sports medicine doctor.

I knew I wasn't going to stop running, so I needed a solution to IT Band pain. Besides the one my friends recommended "quit running".

What I found were a lot of tips and tricks that, when combined, finally created a winning program for me and many others I've coached.

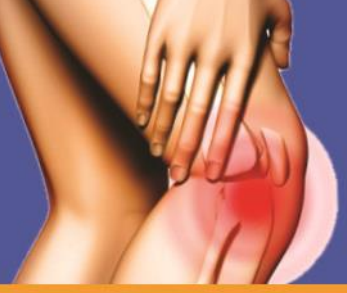
> *In fact, after implementing this process I began running injury free within a few weeks and have kept pain at bay for over 8 years.*
>
> *If pain does creep up, run through the process again and you'll nip it in the bud.*

This is my IT Band injury solution.

A Runner's Perspective:

IT BAND SYNDROME

TREATMENT, PREVENTION AND RECOVERY



STEP 1: Determine the issue

STEP 2: Reduce Inflammation

STEP 3: Create a pre-workout routine

STEP 4: Commit to strengthening exercises

Amanda Brooks | Runtothefinish.com

STEP 1: DETERMINE THE ISSUE

What begins as a slight pain on the outside of your knee soon feels like fire lining the outside of your thigh. And because you're a runner, you push through, but then either because you simply can't move your leg anymore or the intensity of the pain brings you to tears you're forced into an extended recovery.

Welcome to IT Band Syndrome.

The curious thing about IT Band Syndrome is that while you might be feeling the pain along the side of your leg or at the insertion point in your knee, the **IT Band is likely not the actual issue**.

- weak glute muscles
- a hip imbalance (poor alignment)
- poor running form
- improper running shoes
- tight hip flexors, quads, and/or calves
- running too much, too soon, and/or too hard

The pain could be a result of:

If you take a few days off running and the pain remains, make at least one appointment with a physical therapist who can help you determine if tight muscles or imbalances are the root cause.

A physical therapist will watch you move through a series of tests to identify range of motion, muscle weakness, and any alignment issues. If you're determined not to visit a doctor, skip to the "Alignment Testing" or "Glute Strength" sections below.

WHAT CAUSES IT BAND SYNDROME?

Let's look at what the really smart people have to say first and then we'll dive in to plain English, followed by how to fix it.

> *"The iliotibial band (a fibrous band of tissue on outer thigh that extends from the hip to below the knee) also affects knee stability. If too tight, this muscle/tendon of the outer thigh can pull the knee to one side."*

Pain in the IT Band results from the following:

- Excessive rubbing of your Iliotibial Band across your knee (or hip) bone.
- Creates sharp pain on the outside or inside of knee or hip.
- Creates a dull throbbing along the outside of the leg the longer it goes.

While there are a million things we do every day that could cause an injury, from climbing on the counter to reach a top shelf and whacking our head on the open dryer door, when it comes to running there are a few known issues that can explain most issues.

Potential Causes:

- Increasing mileage too quickly, including too much speed work or running with bad form
- Running on uneven ground consistently the same direction (i.e. always running your route the same direction)
- Strength training with poor form, particularly squats
- Pelvic alignment issues which cause foot pronation or internal rotation of the shin while running

Now that we know what can cause IT Band syndrome, how can we help lessen the pain—or even fix it altogether?

We're going to walk through the process and I'll show you specific exercises, **yes exercises not rest**, which will help to set you on the road to total recovery.

IMMEDIATE FAQS

Should I stop exercising? You should continue exercising, but limit the movements that cause pain for two to four weeks. If it's highly inflamed that could mean no biking, stairs or other intense cardio.

Should I apply heat? Start with ice when you first notice pain, but heat can then be useful later to help loosen your tight muscles when done in conjunction with stretching. (More on this to follow.)

How long will it take to recover? This is different for every runner and depends on how far you've let it go. Some will start to feel better within a couple of weeks and others need the patience of a couple months for complete recovery to prevent a relapse.

Can I run? If it's sharp pain the answer is no. You're making matters worse by increasing the inflammation. Instead of looking at this as a setback, recognize the opportunity to get stronger and faster. Including these processes will make you a better runner.

Do I need to see a doctor? It's always recommended to get the advice of a trained specialist. A sports medicine doctor can ensure there is nothing else wrong with your knees like a bone spur or other issues and a physical therapist can provide you with specific moves to correct your issues.

STEP 2: REDUCE INFLAMMATION

During your initial recovery from IT Band pain, you must reduce the inflammation before resuming full activity.

> *"Inflammation is the body's attempt at self-protection, the aim being to remove harmful stimuli, including damaged cells, irritants or pathogens – and begin the healing process." –Medical News Today*

After choosing to continue walking fourteen miles of the San Diego marathon when my IT Band threw a fit, a seven-day steroid pack from my sports medicine doctor was vital. It was the beginning of my recovery process and helped me return to walking.

That's right, if you keep pushing it even walking becomes painful!

If walking is painful for you, look for a local sports medicine doctor to find an appropriate prescription.

Other ways to help inflammation:

- Take turmeric, which is an herbal remedy that reduces inflammation
- Eat anti-inflammatory foods: all vegetables, fruits, salmon
- Eliminate activities that create pain
- Get more sleep, this is when your body repairs itself
- Try not to rely on over the counter meds, they often mask the pain and cause you to do more damage
- Reduce overall stress, to drop cortisol levels (meditation, easy walks, journaling)

Ice or heat?

After lots of research and talking to different physical therapists, I found that the science is changing on the old RICE beliefs: Rest, Ice, Compression, Elevation. Now, more doctors are looking to active stretching and using heat. But mostly I say, "Find what works for you."

Here are some guidelines based on my discussions:

Ice is for acute injuries.

An acute injury is one that comes on suddenly, such as a twisted ankle or a pulled tendon, and is usually accompanied by pain in a specific location, often with swelling or "heat" in the area. Ice can assist in both numbing some of the initial pain effects and reducing swelling by constricting the blood vessels. Icing does not speed healing. It is just a short-term action to stop pain and inflammation.

- Icing's impact is greatest when used immediately after injury.
- A fresh injury = 24 to 72 hours.
- Ice for swelling, redness, and/or a pulled muscle.
- Never ice prior to a run since it causes muscle tightness.
- Never ice for more than 20 minutes at a time.
- A best practice is to ice for ten minutes, remove for ten, and ice again.
- Ice can mentally provide relief if it's what you've done all your life for injuries.

Heat is for chronic injuries.

Chronic injuries are those that have been going on longer than a week and tend to consist of things like tight muscles (IT Band Syndrome, runner's knee, lower back pain), arthritis, aches, and muscle spasms.

A chronic injury is usually something that has been lingering and is actually made worse by the application of heat.

- Use heat for lingering injuries.
- Use heat for arthritis.
- Heat can relax tight muscles for additional stretching.
- Heat increases blood flow to an area, which helps with healing and is beneficial before activity.
- No more than 20 minutes of heat is necessary.
- Heat can mentally provide relief as it feels more soothing and comforting than ice.

Use this quick guide when deciding whether to apply ice or heat and how to do it correctly.

RUNNING INJURY GUIDE	
ICE	HEAT
Immediately post injury	Long term recovery
10 min on/10 off	20 mins hourly
Reduces swelling	Relaxes muscles
Never before a run	Good before a run
Twisted ankle, torn tendon, sprained ligament	IT Band Pain, lower back ache, stiff neck

STEP 3: CREATE A PRE-WORKOUT ROUTINE

Do you lean in to your runs or jump in with vigor?

If you jump in ready to rock n roll, you could be sacrificing endurance and based on all the research, risking injury. So can you spare 5, maybe 10 minutes for a better run? For less time in the Dr's office?

Your pre-workout routine doesn't have to be complex, but it does need to be consistent.

Pick something you already do every single day and start using it as a trigger for the action you want to take. For instance, I suggest picking two things that naturally link to each other:

- After work, immediately put on your running gear.
- Place your running shoes next to your bed every night so you can quickly put them on in the morning.
- After finishing your morning coffee, stretch.
- Every time you brush your teeth, sit and meditate for four minutes.

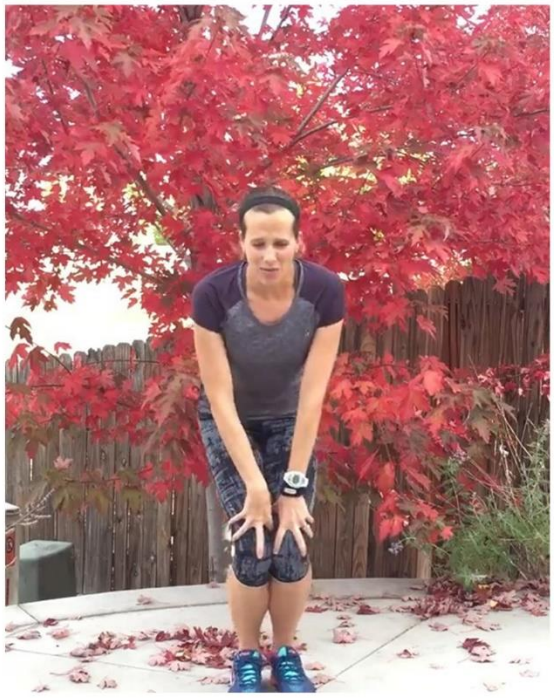
DYNAMIC WARM UP ROUTINE

Following is the dynamic stretching warm up routine I've pulled together over the last 14 years.

It hits all my potential areas of issue {IT Band/Hips}, it's super-fast and it also gets your mind ready to run. Having a consistent routine actually primes the body to run by increasing joint lubrication and blood flow to the muscles.

Overtime your body gets used to running at the same time and will begin the process of preparing on its own, another reason consistency is so important.

DYNAMIC WARM UP ROUTINE



STEP 4: COMMIT TO STRENGTHENING EXERCISES.

If you're like me, just the thought of adding one more thing to your to-do list may seem ridiculous, but I promise that you can add a number of these exercises to your day without much interruption.

For instance, you can do leg lifts while brushing your teeth and stretch for five minutes while indulging in The Bachelor or around our house yet another football game.

Whether your IT Band injury was caused by a muscle imbalance, too much sitting or an accident, the following exercises will create strength to prevent future reoccurrences and other running injuries.

> *It's a long list, so don't get overwhelmed.*
>
> *Review them and select a few to add to your routine. Rotate in a new exercise every few weeks and find which one's you like best.*

THE LUNGE MATRIX

The lunge matrix will help create stability in your hips.

Below, you'll see the lunge program recommended by a physical therapist for my initial recovery. Now, I simply do a few of each prior to every run as part of my warm up.

The key to these moves is that your planted foot remains pointing forward. If you rotate that foot, you're losing the strength that's being developed in that leg and changing the range of motion.

The Matrix consists of 5 lunges which work your legs in every direction and might just challenge your balance a bit too!

When first starting out, try doing 2 rounds of 10 reps and work up to 3 rounds of 15 reps. Once you're doing that consistently and pain free, you can move on to using it like I do.

LUNGE MATRIX

Front Crossover Lunge

Rotational Crossover Lunge

Backward Lunge

Rotational Backward Lunge

Lateral Lunge

TIGHT HIP FLEXORS

Jay Dicharry of REP Biomechanics Lab says, "*85 percent of runners have tight hip flexors.*" And tight hip flexors are the first thing we should address with running form to help prevent pain.

When you suffer from tight hip flexors, your legs can't extend properly. This will certainly slow down your running, but it can also result in weakened hips which leads to IT Band pain.

To prevent your hip flexors from tightening—which can be caused from both sitting too long and running too much—follow these two key suggestions and six recommended exercises.

(Photos on following pages for all moves.)

1. **Get up!** If your job requires long hours of sitting, set a timer for every hour and get up from your desk. All you need is a few minutes every hour to prevent tightening.

2. **Hydrate.** Getting enough water into your system is an often overlooked component to gaining pain-free movement.

   One formula for rehydration is to multiply your body weight by .6 and drink that many ounces of water per day. For example, if you weigh 150 pounds, you'd drink 90 ounces of water per day (150 x .6 = 90), or the equivalent of a little more than eleven eight-ounce glasses of water.

   However, be mindful of how much coffee, tea, or alcohol you drink. For every six ounces of a caffeinated beverage you drink, you'll need ten to twelve ounces of water to rehydrate.

3. **3D Hip Flexor Stretch**
   Such exercises are called 3D because your body moves through all three planes of motion: sagittal, frontal, and transverse. These stretches are intended

to mimic the natural way you move when walking or running. To stretch your hip flexor:

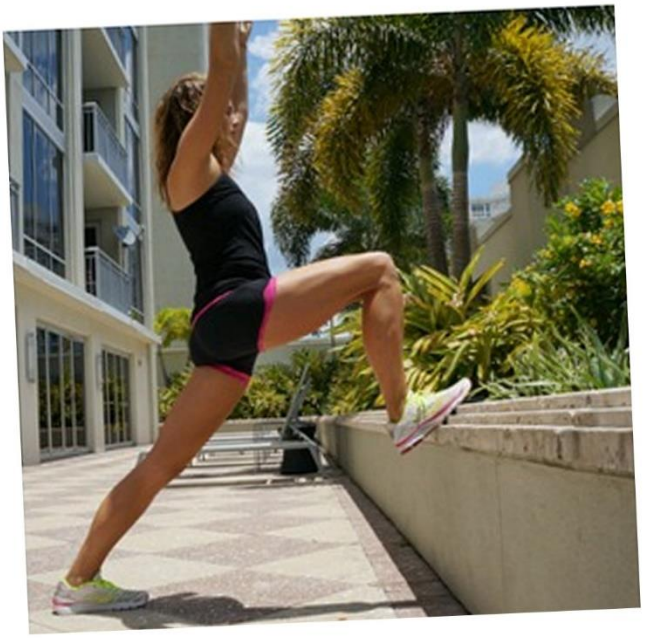
a. Lunge out with your left foot, making sure that your right foot is pointing straight forward. Reach both arms up to the ceiling with your arms touching your ears (or as closely as possible). Drive your hips forward while extending your arms back, making sure to squeeze your right glute to feel the stretch through the front of your hip. Do this ten times. This part of the stretch addresses the sagittal plane, i.e., your front and back.

b. Next, drive your hips forward while leaning your trunk toward your front leg (left) to feel an increased stretch in your right hip. Do this five times. Repeat this motion in the opposite direction another five times. This part of the stretch addresses the frontal plane, i.e., side-to-side motion.

c. Next, bring your arms down to shoulder-length. Drive your hips forward while rotating your trunk toward the leg in front. Do this five times. Repeat this motion in the opposite direction another five times. This part of the stretch addresses the transverse plane, i.e., your rotation.

d. Switch legs and repeat the entire sequence above with your right foot forward.

3D Hip Flexor Stretch



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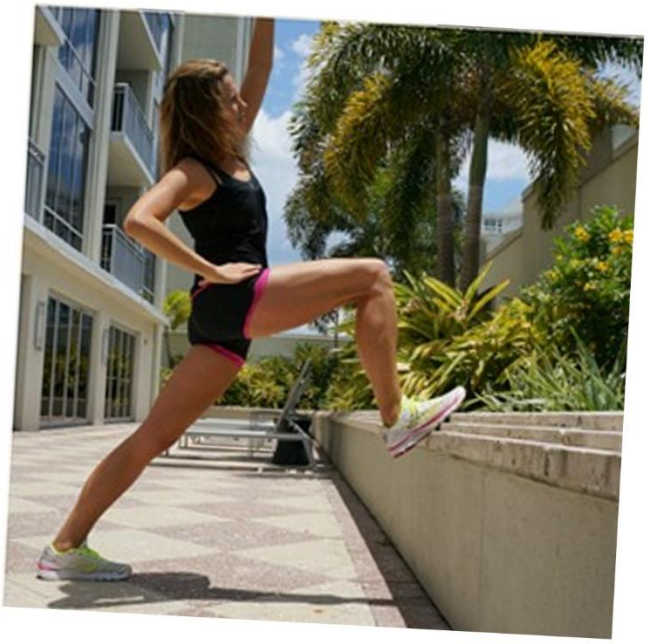

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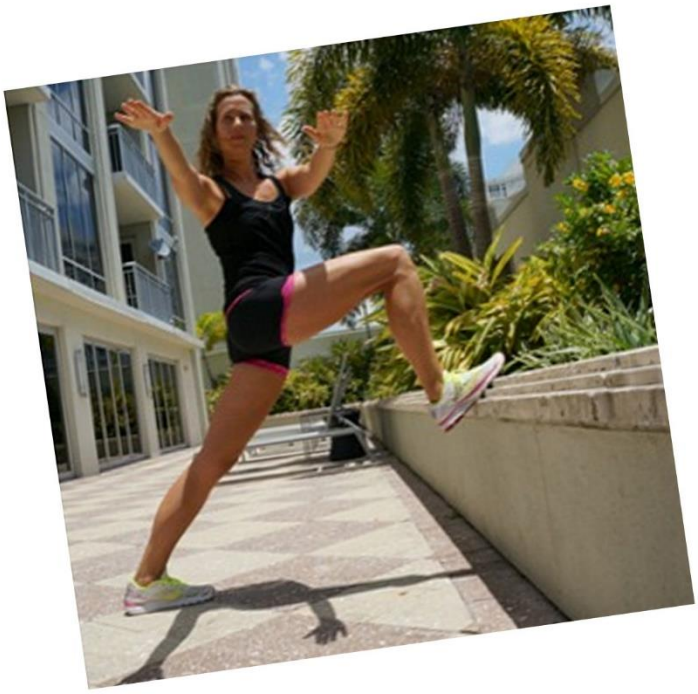

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4. **Kneeling Hip Flexor Stretch**

   Tuck your hips under and, with one leg forward, lean in to the stretch. You should feel it along the front of the leg on the ground. Meet your hip flexors!

   This stretch alone will go a long way toward releasing tightness caused by sitting for too long. This is also a good time to check your shoulders: are they back, or are they rounded forward from slouching while being on the computer? With your head up and your shoulders back, the lean should cause you to feel a stretch. Your knee shouldn't cross over your toes.

5. **Deep Squat**

   Unlike doing a squat for a body weight workout, this stretch asks you to sink down and settle in to a squatting pose. Work your way up to staying in that pose for at least one minute and keeping your heels on the ground throughout the pose.

   If you have trouble getting in to or staying in the squat, hold on to a bar for stability. Keep your head and chest up! The goal is to allow your lower back to relax and let go. (Deep squats are by far the hardest for me, but with my hands in a prayer position, it makes a good time to practice gratitude.)

6. **Child's Pose**

   Much like the squat, the child's pose is another release for your lower back as well as your brain. Something about this pose forces you to relax!

   There are two options for a child's pose. Place your feet together, knees out wide, and then lay your upper body to the floor. If this causes *any* knee pain, it's likely due to tight hips. Switch to a modified version where both your feet and knees are together.

7. **Assisted Quad Stretch**

   This stretch is great for alleviating a lot of knee pain, as well as hip and back pain, experienced by runners. Place both of your knees next to a couch or wall

with one leg propped up against it. Then place the other leg at a ninety-degree position and move in to an upright position.

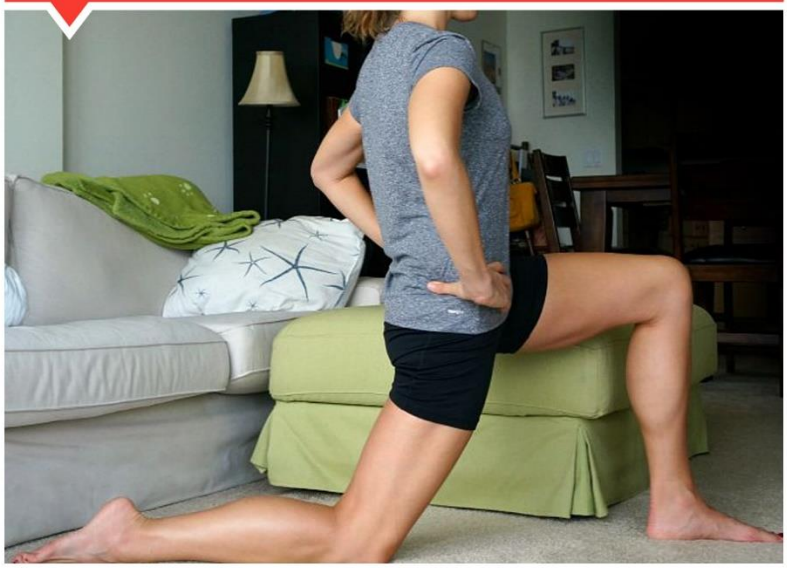
Keep your body tall and straight. Don't lean back or forward. You may need to start with your knee farther from the couch if you are extremely tight and just work back over time. This is more effective than the standing quad stretch due to the added resistance and mobility it creates throughout the entire hip joint.

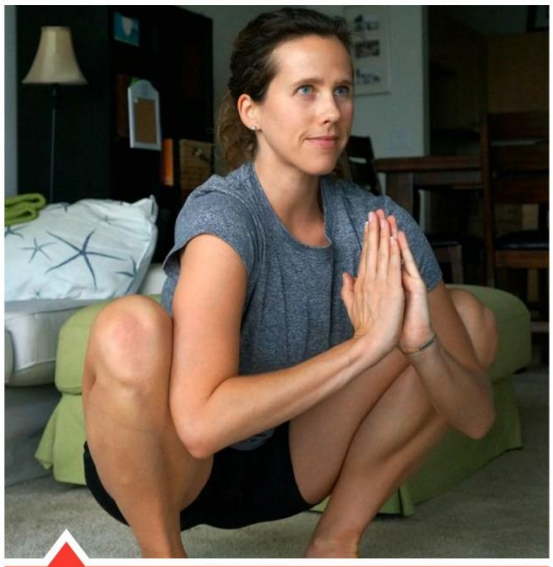
8. Knee Hug

Who couldn't use a hug every day? Simply bring in one leg at a time while keeping the other flat on the floor for another static stretch to release the low back. Fun tip: If you want to work your insides a bit and help with digestion, instead of bringing your knee straight up to your chest, bring it out to the side under your armpit.

TIGHT HIP FLEXORS

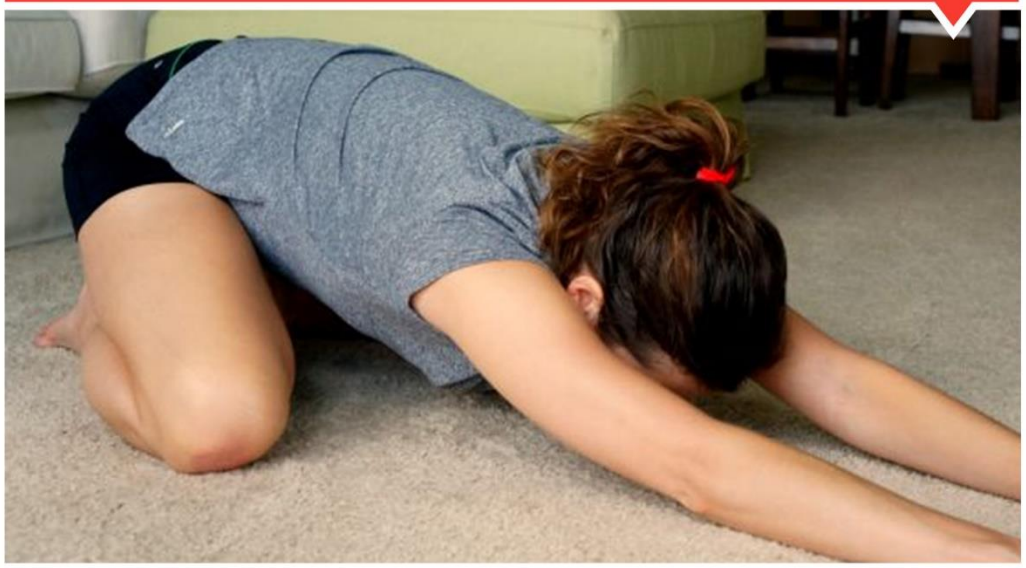
Kneeling hip flexor stretch





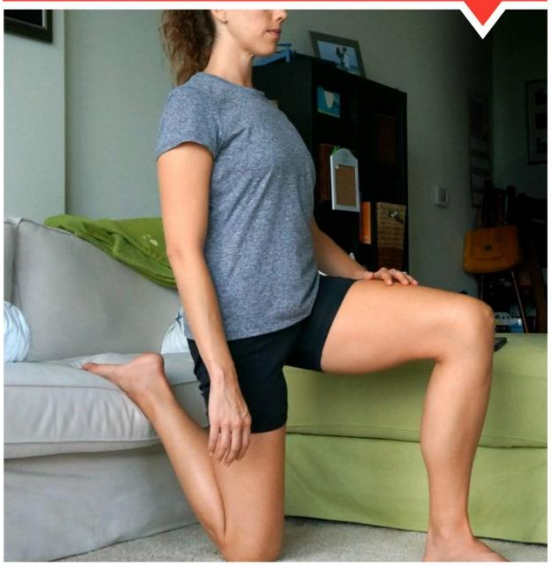
Deep Squat

Child's pose



Knee hug

Quad Stretch



HIP STABILITY EXERCISES

My initial IT Band injury knocked me out for months and left me with lingering pain on and off again for years. But when I committed myself to strengthening my hips, that cycle stopped—completely.

To make your hips stronger, consider incorporating these four exercises into your routine:

1. **Isometric Holds**
   Lie on your back with both legs on the ground. Bend your right leg and pull it in to your chest. Place your hands around your thigh, creating light resistance, then push away with your leg for ten seconds. Place your hands in front of your knee, again creating light resistance, and push your leg toward your chest for ten seconds.

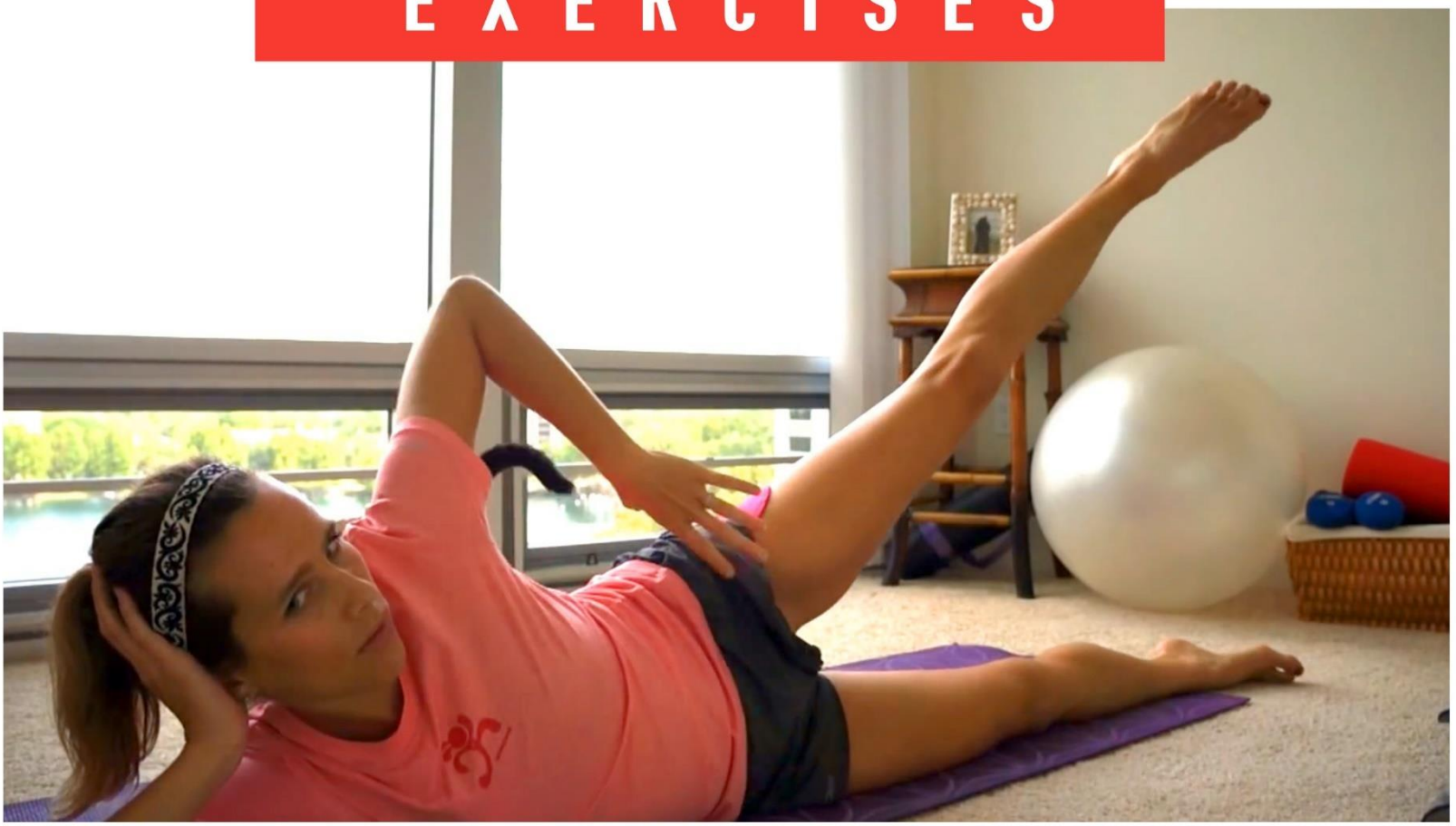
2. **90/90 Hip Rotation**
   Lie on the ground with your knees bent at 90 degrees and a block or pillow in between your knees. Begin to drop your knees to the right, keeping both shoulders on the ground. If your shoulder comes up, you've gone too far. Return to center and rotate to the left.

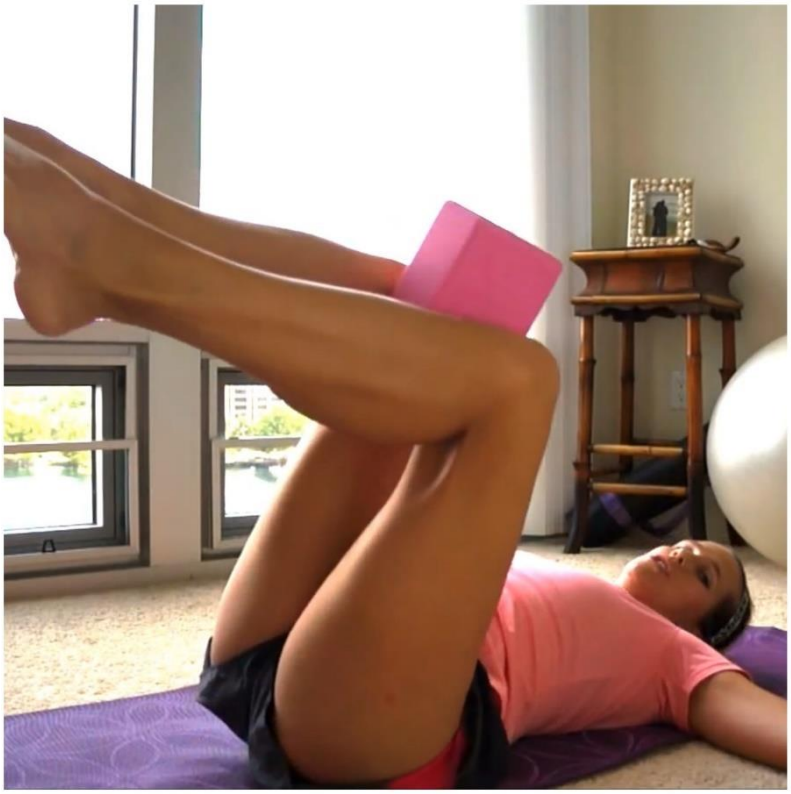
3. **Leg Rotation Leg Lifts**
   These two exercises can strengthen your hips:
   a. Lay on your stomach with your arms down by your side. Bend your right knee to 90 degrees. Slowly rotate the lower portion of your leg out to the left while keeping your leg on the ground. Return to center and rotate right.
   b. The second exercise is done while laying on your side. Lift your top leg and simultaneously rotate the knee toward the ceiling. As you lower it, rotate the knee down while keeping your leg fully straight.

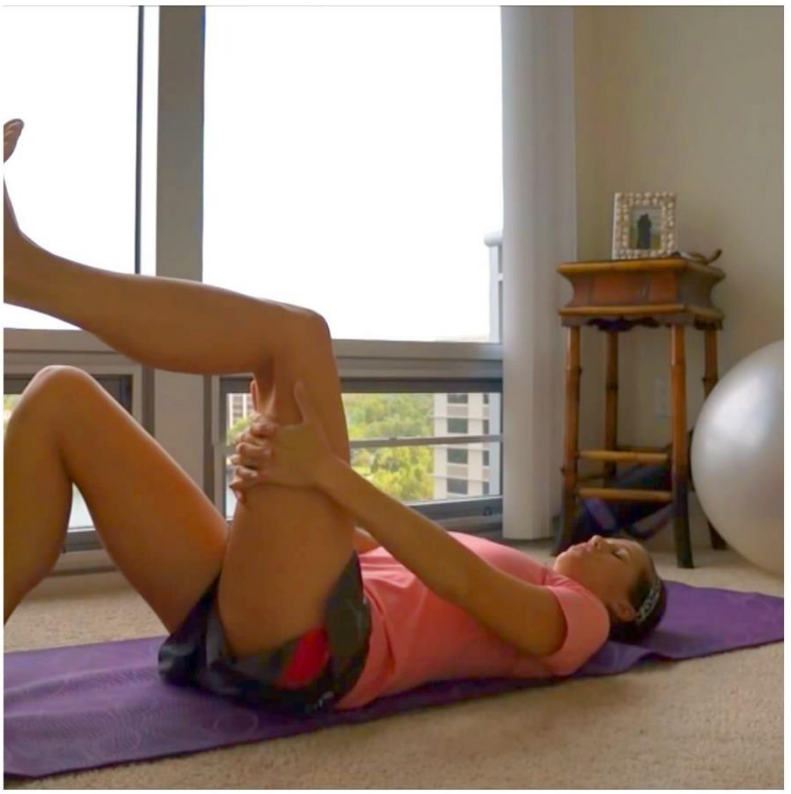
4. **Scorpion Stretch**
   Lay on your stomach with arms stretched out to form a T. Begin to lift your left

HIP STABILITY

EXERCISES







GLUTE ACTIVATION EXERCISES

It surprises many runners to find that their glutes have stopped firing from hours of sitting at a desk, where they aren't needed and tight hip flexors slowly take over. If you're glutes aren't working, you aren't running with proper form or your best power.

Issues with poor glute activation:

- Over reliance on hamstrings
- Less control over internal rotation of legs, leading to knee injuries
- Increased lower back pain

When we talk about the gluteal area, it's not just one large muscle, but 3: gluteal medius, maximus and minimus. Working all three is required to keep us running strong.

Gluteus Maximus

Gluteus Medius

Gluteus Minimus

First you can **test your glutes** to find out how strong they are, by doing the Cook Hip Lift or even a single leg standing bend and reach. Following are additional exercises to get your glutes firing and your IT Band back to its only true function of guiding your knee.

1. **Cook Hip Lift**

   I feel like this is just a good exercise to do in general as it fires all kinds of muscles. Foot on the floor is driving the heel in and the toe up off the floor, try to hold for 2 seconds when you raise up. The ball will force you to focus on the glutes because going to high starts using the back and the ball will fall.

2. **Clam Shells**

   Standard clam shell is laying on your side with knees bent at 90 degrees, while keeping your ankles together raise the top knee and you should feel the activation in your hips and glutes.

3. **Single Leg Bridge**

   The single leg bridge is very similar to the cook hip lift. Instead of keeping your knee bent to the chest, you keep the leg as straight as possible while lowering and lifting. Again if you start to notice the work coming from your hamstring, go back to the cook hip lift.

4. **Bulgarian Goat Belly Squats**

   Standing with the kettlebell pressed in to your core, engaging the entire core, bend from the waist and then quickly power back to vertical. This is a unique, but effective way to force your entire core to work together and fire up the glutes.

5. **Prone Leg Lifts**

   Lying flat on your stomach, focus on raising first one leg at a time. If the knee bends you are using too much hamstring.

   Focus on keeping the leg long and raising 1 leg at a time with toes pointed. You can do 1 leg at a time, move up to both legs or using a resistance band with single leg lifts. This increases hip extension, you should contract the core, but never feel tension in the back.

GLUTE

- ACTIVATION -

EXERCISES

HIP EXTENSION AND ROTATION EXERCISES

In order for runners to achieve maximal extension/power (kicking the leg out behind you) of roughly twenty degrees, your hip needs to be open enough to rotate internally.

Without that rotation, the body begins to compensate with other muscles, leading to overuse injuries, imbalances, and IT Band and knee issues.

One of the most common ways this is illustrated is by looking to see if your "hip drops" when running. This is a sign of weak hips and often a weak core. To see where you may be weak, get a complete stride analysis the next time you're at the running store.

Again, to combat weak hips, incorporate the stretches I've already mentioned above. Additionally, add in a few of the following moves to improve your extension and mobility.

Hip Rotation/Extension Movements

Hip extension is often compromised due to our sit-all-day natures. One quick starting point is to try standing more throughout the day, include these hip flexor stretches, and then start adding in just a few of these moves three times a week. You'll also be amazed at how much these work your core, which will improve your overall running form and power!

Inward Knee Drift

After talking with my chiropractor, we agreed that my hips are pretty much always a little off, even after adjustment. My right leg is shorter, and I've heard this from many chiropractors, so we agreed that was probably not an issue.

Then my chiropractor looked down at my foot and said, "Um, just standing up, look how your foot is falling inward." Below is an image of me running to help you understand what falling in (i.e., pronation) means.

Pronation of the feet, a.k.a. knee valgus, is common in runners, and particularly in women runners. This kind of pronation results in runner's knee, IT Band pain, and other issues. Knee drift could be caused by foot pronation, weak hips, or misaligned hips.

DOHHHHH — When I switched to the Kinvara's around 2009 they seemed to resolve my IT Band pain, so I have resolutely stuck to them through thick and thin. But it's highly logical that after 5 more years of running some things have changed.

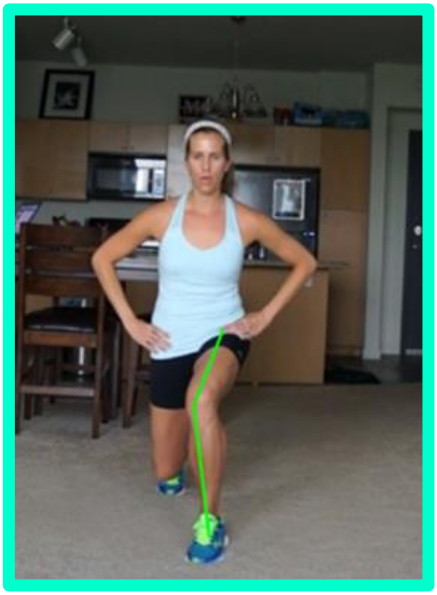
When you see pronation or knee drift that strength workouts aren't fixing, here's what you should do:

- **Try an insert with a little arch.** For $20 I was open to trying this immediately, and to only running in my shoes that had more arch support, like the Cortana and Zealot.
- **Get orthotics.** This is not my favorite suggestion, as I think there's something to be said for allowing your body to control its own movement. However, orthotics are a great solution for many!
- **Get stability control shoes**. Same as above, plus my right leg is actually perfect so I don't want to create an issue there.

What is the root cause of my knee drift?

To find the cause of your knee drift:

1. See a chiropractor about leg-length discrepancy. They've always told me my right leg is a little shorter. After an adjustment, my right leg usually reverts back to its proper height, so I don't think this is the cause of new pain, as it's not a new thing for me.
2. Weak glutes/external rotators: Yes, I also know this is an issue, but all the squats and lunges weren't isolating that glute, which meant all my physical therapy has been a bit wasted. I've just continued to compensate with other muscles—which made everything hurt worse.



IT BAND INJURY ONGOING TREATMENT OPTIONS

A.R.T.

According to ActiveRelease.com, "ART is a patented, state of the art soft tissue system/movement based massage technique that treats problems with muscles, tendons, ligaments, fascia and nerves.

Headaches, back pain, carpal tunnel syndrome, shin splints, shoulder pain, sciatica, plantar fasciitis, knee problems, and tennis elbow are just a few of the many conditions that can be resolved quickly and permanently with ART. These conditions all have one important thing in common: they are often a result of overused muscles"

In the throes of my ITBS pain, I was open to any and every treatment there was! I found a local A.R.T. and tried it for a few sessions, but never found significant relief. However, I have other friends who swear by it.

Leana, a multi-time Ironman finisher, has found success with ART:

> *When I was training for my first marathon a run coach noticed something wrong with my gait and suggested I go to ART to get my hip looked at. Not really knowing what it was I trusted her opinion and made an appointment.*
>
> *The chiropractor who specialized in ART performed an assessment and then got to work, attempting to work out any kinks, tightness or scar tissue that was causing an issue.*
>
> *Since then whenever I feel a niggle, pain or tightness I'm quick to make an appointment for ART to fix it right away. I've been helped with piriformis pain, knee pain, shin splints, you name it! If I'm on an issue quickly it will generally only take a couple of visits before the niggle is worked out.*

CHIROPRACTOR

If you're suffering from an IT Band injury, when does it make sense to see a chiropractor? I'd suggest as soon as possible, especially if you may be hurting due to pelvic misalignment.

According to Greg Strosaker in "9 Causes of Hip Pain During and After Running, "pelvic misalignment is often first recognized as a leg-length discrepancy. Such

discrepancies can be mistakenly attributed to permanent biomechanical issues when in fact they are often a temporary condition brought on by poor pelvic alignment. Thus the tendency is to leap quickly to orthotics in such a situation, when in fact appropriate corrective and preventative exercises may address the true issue."

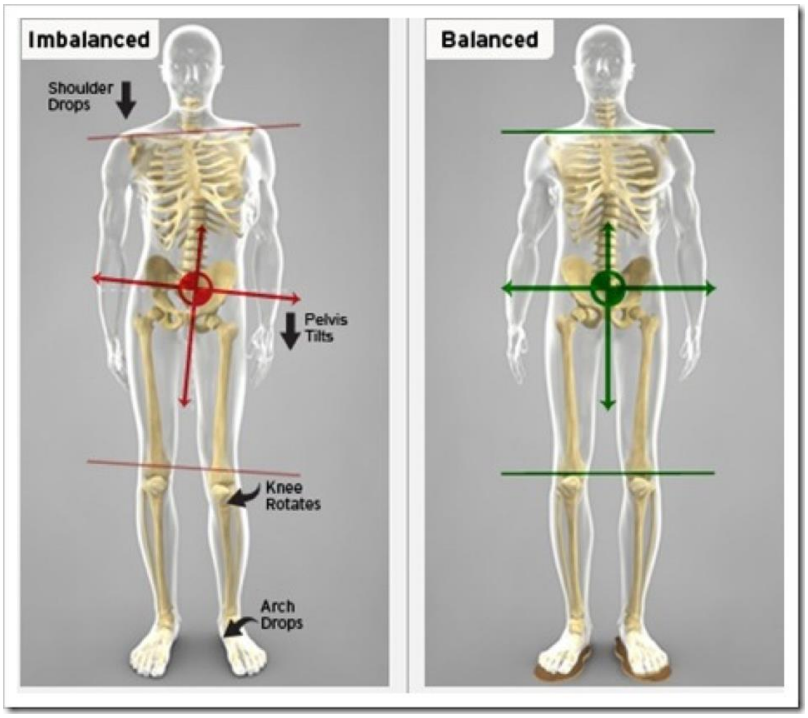
In other words, before leaping to an external solution like orthotics, try the exercises I describe in this short book and consider visiting a chiropractor. Strosaker continues:

> *Once an alignment issue is identified, the goal is to ease the muscle tightness and imbalances that are causing the problem. This is again most effectively done through at least the initial efforts of a professional such as a sports chiropractor, massage therapist or physical therapist. Massage or Active Release Techniques can help loosen up the muscles most often responsible for the misalignment: the hip adductors, iliopsoas and the quadratus lumborum.*

A chiropractor can help to identify and realign your pelvic misalignment, then you can consistently incorporate the exercises, breathing techniques, and stretches for lasting relief.

ALIGNMENT TESTING

The image below shows how hip misalignment due to weakness can cause problems all the way down your leg and results in IT Band Syndrome, or runner's knee, by rotating the leg, changing your gait, and shortening your muscles.



How can I tell if my hips are twerked?

Hip rotation is a common occurrence and many resolve it by going to the chiropractor. However, this is usually just one part of the formula. To ensure that you don't need to visit your chiropractor on a weekly basis, it's important to also perform exercises that strengthen the muscles around your pelvis and continue daily hip stretches as described above.

Compare your left and right side:

- Is it harder to balance on one side?
- Is one side weaker, more painful, tighter, or stiffer?
- If any of this is true, your pelvis may be rotated.

Leg Length Discrepancy

Another hip alignment test is to lie on your back on the floor, bring your knees to your chest, and then slowly stretch your legs straight on the floor or against a wall. Ask a running buddy to see if one leg is longer than then the other. (I can often tell this on my own with my legs up the wall.)

Your friend can help you do this by holding a broomstick or other rod across your feet and then across your hipbones while you're still laying face-up and then face-down. Most often, the right hipbone appears to be higher than the left one if the pelvis is rotated.

You can also try checking your hips while standing.

Hip to Be Square: How to Get Balanced

After being assessed or seen by a chiropractor, here are a few at-home exercises to help continue creating hip strength in order to prevent pelvic rotation. These should be

done in conjunction with hip stretches! As always, I'm not a doctor and you should consult one before starting any routine, but I have found these exercises to be helpful.

1. **Isometric Holds**
   Lie on your back with both legs on the ground. Bend your right leg and pull it into your chest.

   Place your hands around your thigh and create light resistance. Push away with your leg for ten seconds. Place your hands in front of your knee, creating light resistance again, and push your leg toward your chest for ten seconds.

2. **90/90 Hip Rotation**
   Lie on the ground with your knees bent at 90 degrees and a block or pillow in-between your knees. Begin to drop your knees to the right, keeping both shoulders on the ground. If your shoulder comes up, you've gone too far. Return to center and rotate to the left.

3. **Leg Rotation Leg Lifts**
   These two exercises can be used to continue working on hip strength:

   Lay on your stomach with your arms down by your side. Bend your right knee to 90 degrees.

   Slowly rotate the lower portion of your leg out to the left, keeping your leg on the ground. Return to center and rotate right.

   The second exercise is done laying on your side. Lift the top leg and simultaneously rotate the knee toward the ceiling. As you lower, rotate the knee down while keeping the leg fully straight.

4. **Scorpion Stretch**
   Lay on your stomach with arms stretched out to form a T. Begin to left your left leg in the air and rotate it across the mid-line of your body, touching the ground on the right side of your body. Come back to resting and repeat on the opposite

side.

This is also wonderful for the low back, but go slow to start. If you need a visual of the exercises, here is a quick video demonstration, as well as videos for the other recommended moves linked below.

5. **Squeeze with Raise**
   Using a small ball or yoga block, squeeze your knees together and simultaneously extend one leg. Repeat ten times per leg to work the quad near your knee. Stay focused on the squeeze.

6. **Clamshell with Resistance**
   Lie on your side with your knees together. Focus on contracting your deep core muscles. With your feet touching, raise your top leg. This will work your core and outer hip. Repeat ten times per leg. (Admittedly, I did this one but without the band, and that adds a whole new level.)

7. **Bridge March**
   The key to this exercise is not to let your hips sway at all while doing the movement. It requires focusing on your core, your glutes, and well, everything, to keep stable. The march is slow and only done for up to one minute as soon as you start to see your hip movement stop.

NOTE: I tried to keep this as non-medical as possible to get straight to the details, so please, no pointing out that it's the Vastus Medialis Oblique Muscle and not the inner thigh. I get it, but I also wanted this exercise guide to be helpful to everyone.

KI-HARA STRETCHING

When I first heard about Ki-Hara Stretching, the word that stuck out to me was "stretching." I thought it was another form of yoga.

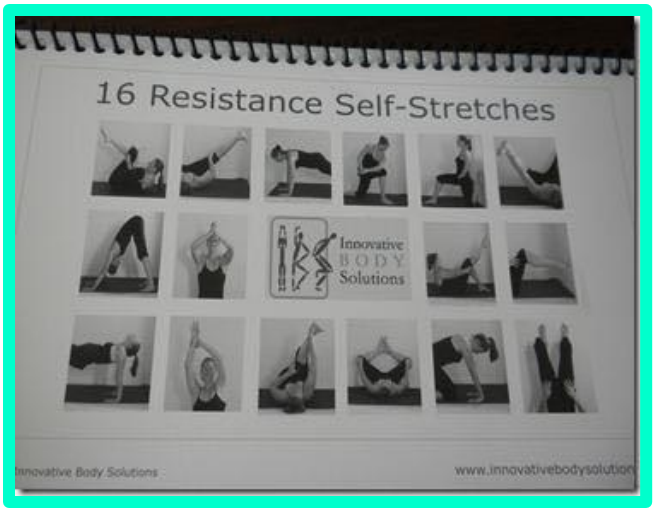
However, a better way to think of ki-hara is like a push up: by using your own body weight and resistance, you create strength and lengthen your muscles.

You can perform many of the movements on your own while watching TV, so there are no excuses to skip out. Like many tools, the benefits of Ki-Hara Stretching are compounded over time. The more time I take to do push-pull exercises with the leg suffering from IT Band Syndrome, the more I find my hamstrings are firing as they should.

When you run, it's easy for a stronger muscle to take control over a weaker muscle. The longer this happens, the more you strengthen the stronger muscle. Then, your brain stops sending signals to the other, weaker muscle.

In my case, my brain stopped telling my hamstring to fire. This meant I was relying solely on my quads for power. Reawakening my hamstring through Ki-Hara Stretching has lengthened my stride and increased my pace.

Why Try Ki-Hara?



Most runners don't lift weights with their legs, so ki-hara is a great way to add strength and ensure that you're getting a full range of motion.

One of my craziest insights during a ki-hara session was the realization that I wasn't getting a full leg swing due to my tight muscles. It completely explained why everyone would tell me to lengthen my stride, but I physically couldn't. Those muscles were all bound up.

You should try Ki-Hara Stretching because it:

- Releases tight muscles
- Creates stronger legs for push-offs
- Enables better posture for injury prevention
- Resolves chronic injuries by both strength and length
- Improves your core (Yup, rockin' abs are another great benefit!)

I was lucky enough to learn from the creator of this program. You can get a full DVD to try it on your own here.

CROSS-TRAINING

> *I just want to run.*
>
> *My life is busy and if it comes down to my run or cross training, I'm always going to run!*
>
> *I hate the gym.*

Admit it, at least one of those statements have passed your lips since becoming a runner!

Personally, I used every single one of those for many years!! Sure I would do yoga here and there or remember to hoist up a weight once in a while, but what it lacked: CONSISTENCY.

The key to progress in running or any fitness endeavor is consistency.

For those like me who may not LOVE cross training, but understand the benefits here is some of what I've found over the years to help make it part of my routine…

- Namely **I pick things that are going to make me a better runner**! Then I'm more motivated to stick with it for the long haul.
- Others find that variety makes running even more enjoyable.
- Being determined to not get injured again.
- A desire to build more muscle to improve overall body appearance.
- To feel stronger.
- To run faster.

So what cross training has the biggest impact?

Checkout the following:

YOGA

With practice, yogic breathing (*pranayama*) can help you extend your breath, allowing for improved endurance due to a **greater oxygen supply**. Yogic breathing isn't just about taking a deep breath. Rather, it's about finding a particular rhythm in your breathing patterns and intentionally altering your breathing patterns in order to achieve specific results. And because of its rhythmic and calming nature, yogic breathing also **reduces stress** and provides a meditative mindset, which enhances my running experience.

Additionally, I can personally attest to the many benefits of hip-opening postures like *eka pada rajakapotasana* (one-legged pigeon pose), *agnistambhasana* (fire log pose) and *ananda balasana* (happy baby pose).

These poses allow for a greater focus on the hip joint and on stretching the muscles in that area of the body. This is not only important for runners, who often have misalignment in this region, but also for every person who spends the majority of their day seated at a desk or in a car, which causes hip flexors to tighten and shorten.

1. **Revolved Hand to Big Toe Pose**
   Begin by lying on your back. Bend your right knee into your chest, flexing your foot. Place your strap, towel, or similar prop around your right foot and extend your right leg straight up above you. Hold on to the strap with your right hand as

you press your shoulders into the floor. Allow your right leg to slowly fall straight over to the left, pausing at the point where you feel a moderate stretch through the outside of your leg. It's important to practice this pose gently; stretching too far too quickly can actually cause more harm than help. Hold this pose for five breaths, then switch and stretch the left side.

2. **Half Monkey Pose with Twist**

   Begin kneeling with your stacked over your left knee. Extend your right leg straight in front of you, flexing your right foot. Start by finding Half Monkey Pose, folding forward with a flat back, stopping when you feel a comfortable stretch in your right hamstring.

   Hold for a few breaths, then find your way to twisting Half Monkey Pose by bringing your left wrist below your left shoulder and stacking your right shoulder over the left. If the twist is difficult for you, you can bring a yoga block or other solid support under your left hand, which should make the twist a little easier. Hold the pose with the twist for five breaths, then gently release and repeat on the other side.

3. **Horizon Lunge**

   Start in Low Lunge (Anjaneyasana) with your right foot forward. Your right knee should be stacked directly over your right ankle. Your left heel stacks over your toes and the ball of your left foot. Raise your right arm up by your ear, reaching your hand in front of you, keeping the arm straight. Rotate your right shoulder back behind you as you sweep your right arm down, bringing it parallel to the ground. Rotate your hips to the side, coming to the knife edge of your left leg. The outside of your left leg should face down to the ground. Hold for a few breaths, then repeat on the left.

4. **Reclined Cow Face Pose**

   Cross your right thigh over your left, stacking your right knee on top of your left knee. Reach for your feet, drawing your feet closer to your chest to bring your legs in for a stretch. If you're unable to grab your feet, bring your hands to your ankles or shins. Hold for at least a few breaths, for as long as a minute or two.

Be sure to hold the pose for an equal amount of time with the left knee on top of the right.

5. Revolved Triangle

Start by standing with your right foot about a foot to a foot and a half (30-45 cm) in front of your left foot. The toes of your right foot point directly forward as the toes of your left foot point at a 45 degree angle up and to the left. In the full pose, you'll bring your right heel in line with your left heel, but you can keep them a little wider, closer to being in line with your hips, if that helps you feel more steady. Bring your legs straight, with an option to keep a small bend in the knees if you have tight hamstrings.

Once you feel solid in your feet and legs, bring your left hand beneath your left shoulder, reaching it toward the floor. Stack your right shoulder on top of the left as your right hand reaches up above you to the ceiling. You can bring a yoga block, stool, or other firm support under your bottom hand to make the pose more accessible.

IT BAND stretches for RUNNERS

POOL RUNNING

This does not work for everyone, but if you can reduce the load on your body while running pool running or using the Alter G is an option. In my experience, not running is the ideal way to recover as it ensures you're not repeating the same friction over and over which caused the pain.

However, if it's not painful this is a great way to improve your strength. Many Olympic athletes have used this to increase their mileage without the pounding and say it's an amazing workout.

CYCLING

Again, this will not be an option for everyone, it created more pain for me than running. But for others it eliminates the pain and is one of the best cross training options. Cycling at 90RPM mimics the footfall you want in running and can allow you to improve your stride rate, while working on endurance.

You will need to roughly double your time on the bike to equate the same time running.

STRETCHES

The debate continues to rage about the benefits of post-run stretching. While I don't think post-run stretching needs to be extensive, or even that it needs to occur the instant after you stop running, in many runners I work with I've seen that a little time spent stretching after a run can both feel good and release tight muscles, which helps prevent injury.

One of the best things about stretching for runners is that it should be more passive and thus relaxing. And no, stretching is not yoga, they are different for so many reasons.

And for those who ask, DO NOT STATIC STRETCH BEFORE the run. This is a great way to get injured. Instead, use the dynamic warm up provided above.

RESTORATIVE POST-RUN STRETCHES

Here are a few of the best restorative stretches for runners (and we're using props!). Often, running leaves you both energized *and* tightly wound—anyone else find it harder

to reach your toes post-run? Using a yoga strap and block can ensure you don't overstretch while also helping you increase your range of motion.

These stretches are also super-useful for anyone who sits all day, since that shortens your muscles, which then throws off your stride. So take a deep breath, give yourself a moment to relax, and just enjoy these stretches—perhaps while catching up on some of those TV shows you pretend not to watch {cough, *Real Housewives,* cough}.

Without further ado, here are the best post-run stretches:

1. **Bridge with Block**

   I came upon this one by accident, but now swear by it. A yogi friend had me do it while we were waiting for class to start. After five minutes of just chilling out, I removed the block and my hip popped in that amazing way where you can tell pressure has been released and things are back in place! Free chiro!

   Simply lay on the yoga block for up to five minutes. Start with the block laying on its longest side. Once you're used to that and want to increase your stretch, place the block on its shortest side and lay on that.

2. **IT Band Stretch**

   All kinds of standing stretches can help, but I've found that this one forces you to really see just how tight you are. Place the strap around your right foot and hold the strap in your right hand. Now, begin dropping your right leg across your body. Keep your hips and shoulders firmly planted on the ground. The tighter your ITB is, the higher you'll have to keep your leg to keep everything on the mat. That's OK. The goal isn't to get to the ground, it's to stretch that muscle. Hold the pose for thirty to sixty seconds, then switch sides.

3. **Leg Extension**

   Oddly, another place you'll get tight is your inner thigh. I'm told this is because we neglect this muscle during our solely forward motions. Hold the strap in your left hand and slowly allow your leg to fall to the right. Don't go too fast and keep both shoulders on the ground. You may not have a huge range of motion and

that's fine. Watch to see if your range changes over time. Hold the pose for thirty to sixty seconds, then switch sides.

4. **Quad Stretch with Strap:**
   I love stretching my quads. Maybe that's because when my knee was so tight, I could feel it release after I spent time on this stretch. Since we're focused on passive stretching, try laying on your stomach and keep your knees together. Use the yoga strap to pull your heel as close to your bum as you can without pain. Hold the pose for thirty to sixty seconds.

5. **Single-Leg Toe Reach**
   The sit-and-reach was my least favorite thing ever as an elementary school kid, mostly because I could reach my knees and that was about it! Since then I've continued to spend just a few minutes on this stretch and can certainly tell it allows me to open up my stride more efficiently.

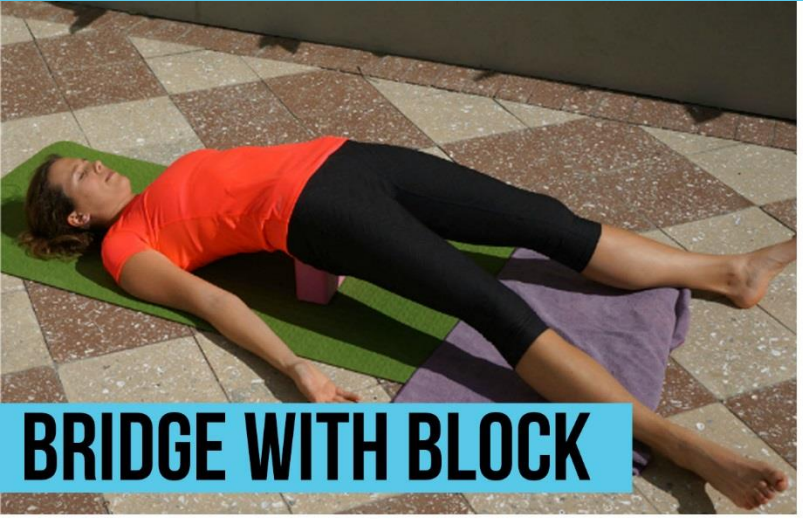
   Bring the sole of your left foot in to your right thigh and extend your right leg. Bend from the waist, face your outstretched leg, and keep your back straight as you reach for your toes. Hold the pose for thirty to sixty seconds, then switch sides.

6. **Legs Up**
   Have you ever been in yoga class when they ask you to go in to a shoulder stand, then the instructor says, "If you don't want to," or "If it's your cycle, don't," so you just hang there, legs up, thinking, *When is this over*?

   A good way to get some great hip benefits out of that is with the yoga strap. I'm not a shoulder stand fan, so I find myself hanging out here for a long time. The yoga strap helps me hold the position by simply looping the strap over my feet with my shoulders remaining relaxed on the mat. Inversions help to flush out the legs and get everything in your body moving that might be stagnant.

7. **Calf Stretch with Block:**
   These puppies get tight and a tight calf can lead to shin splits, knee pain, and IT

Band pain. Nobody wants that, which means whether you wear heels or find this is your place du jour for muscle cramps, a long-hold static stretch can help. Lean in to the block for at least thirty seconds, but if you can last up to three minutes, even better.



RESTORATIVE POST-RUN STRETCHES

IMPROVE RUNNING FORM

Assessing your running form is a great place to start because better form helps resolve many running injury issues. Any twisting of your body affects your hips, which radiates down the leg creating unexpected muscle tightness or aggravation.

Summon your inner child and get ready to be a STAR performer. These simple tweaks do not require you to change your stride, pick new shoes or add time to the workout. During each run, spot check your form with these 4 running form tips {*trying doing it after every 2-3 songs*}:

SHOULDERS

For most people one of the first places to noticeably feel tension is the shoulders, if yours are beginning to resemble earrings it's time to relax.

- Take a deep breath and sigh, you should feel your shoulders drop immediately
- Throughout the run do this to eliminate energy wasted in shoulder tension
- Dropped shoulders will open your chest up for better breathing

TALL

As we begin to fatigue our natural inclination is to slouch thinking that we are letting our body relax. This curved body position makes running harder because you are not engaging the core, tightening the lungs and effecting you mentally.

- Pull up from the top of your head
- Stretch your arms diagonally up to help you stand tall, chest forward with just a slight lean
- Chin parallel to the ground look forward, not down at your feet
- Standing tall increases energy through better breathing and a body feeling that creates confidence

ARMS

Holding your arms against your sides requires 12% more energy than letting them naturally swing…since I'm sure none of you do that here are a few arm movement tips to keep you from swinging across the body or too hard, both of which can lead to IT band and other injuries...

- Hold a butterfly wing between your thumb and pointer finger
- Hands in a light fist with palms facing towards your body
- Thumb tip is thus pointed forward and the thumb knuckles towards the sky
- This hand placement helps to prevent cross body arm swing, which is an injury magnet
- Arms should stay bent roughly 90 degrees, forward and back

RELAX

How can you tell when someone is really concentrating? Their eyes narrow, their brow furrows and maybe even their lips purse…all of this might be great for communication, but on the run it's lots of wasted energy that could be used for propelling you forward and farther

- Say to yourself "relax, let go" a few times during a hard effort
- muscles you didn't realize you were tense release and the effort becomes much easier
- relaxed muscles respond with an easier turn over, better stride and less wasted energy

A few other notable tips:

- Don't bounce. Imagine the ceiling is an inch above you and you don't want to hit it.
- Flat feet. Don't run like you are wearing heels, it can help for a while to imagine flexing your foot and landing on the whole foot
- Slight lean. A tall stance with a slight forward lean will prevent you from major heel striking.

AT HOME SOOTHERS

You're on track now with all the right moves, getting your hips strong like an ox and those glutes so tight you could bounce a quarter on them, but that doesn't mean there isn't some lingering soreness.

Here are a few of the tried and true at home soothers, which are great during ITBS recovery and honestly after any long run to give your body some well-earned love.

EPSOM SALT

Epsom salt helps relieve sore muscles and are my go-to soother after hard workouts where I can feel my legs tingling or twitching. Epsom salt tends to prevent cramps and allows everything to relax, which keeps me from getting a tight ITB.

- Your body absorbs magnesium more easily through skin than through a pill, which results in a number of benefits.
- Epsom salt reduces inflammation.
- Epsom salt eliminates toxins, which helps ease muscle pain.
- Epsom salt improves nerve functions by regulating electrolytes.
- Epsom salt helps your adrenaline glands ensure they have enough magnesium, which they likely don't after a run because running causes so much stress on the body.

ICE BATH

I admit I also like the Espom salt bath because it's not an ice bath! Even living in Florida I just couldn't get myself dunked and I couldn't ever find enough information to convince me it was worth it. Here are the reported reasons for including this post run:

- An ice bath causes your muscles to tighten and drains the blood. Once you step out of an ice bath, blood starts flowing. In theory, this flushes your lactic acid and speeds recovery.
- An ice bath reduces swelling and tissue breakdown.
- No major studies can agree on whether or not ice baths work, but if you think it works well with *your* running, that's generally all that matters.

LEMON OIL

Another trick I learned from my massage therapist was to apply 100% Lemon Pure Essential Oil. When I place lemon oil directly on a sore muscle, within seconds anything that was tight or knotted releases. It kind of feels like magic.

Note: It's *very* potent, so it could burn if put directly on your skin depending on how your body reacts. It's recommended to put the lemon oil on something like cheesecloth, then rub it along the sore area. I'm too lazy for that, so I put it right on and haven't had any issues.

FOAM ROLLERS

Should I Use a Foam Roller?

Joseph Campbell said, "Find a place inside where there's joy, and the joy will burn out the pain." I'm fairly certain foam rollers weren't around in his time, but his thought still applies. You have to focus on the outcome to get through a little time on the roller—that is, if you should be foam rolling at all!

A lot of us have been using foam rollers all wrong, and instead of making things better, we're perpetuating injuries and stressing out our bodies. In particular, I want to ensure

we stop beating up our IT Bands, as that is the biggest injury which I am asked about.

Should I use a foam roller with IT Band pain?

Your IT Band is not evil and does not need to be beaten in to submission. *In fact, you shouldn't use the foam roller along your IT Band when it's inflamed*.

It's a fallacy to say that you can relax your IT Band.

Its tightness is caused by other muscles, from your glutes to misaligned hips. So instead of rolling on it for hours, which is like poking a bruise, try these moves.

There are a few key areas that can help runners prevent knee and IT Band pain by spending a little quality time each day with the roller.

1. **Foam-Rolling Your Glutes/Piriformis**

   Sit on the foam roller with your knees bent and feet on the floor. Slowly rock back and forth to start. You might immediately feel your muscles rolling over as your glutes release. You can then put your right ankle on your left knee and start to slowly roll on the glute to begin getting in to the Piriformis. With both moves, take a minute to move a little more forward and backward in order to get all sides of the muscle and discover your trigger points.

2. **Foam-Rolling Your IT Band**

   As noted above, don't roll your actual IT band when it's inflamed. At other times, you can slowly roll this area, but keep it moderate as this muscle is always tight due to other areas. To roll it, sit on the roller, then lean to the right side with your legs straight on the ground. Roll from hip to knee. Place your hands on the floor for balance.

3. **Foam-Rolling Your Calves**

   This is my most sensitive area and the one I both love and hate to do. Tight calve muscles can also pull on your knee, causing misalignment, so don't skip them! With the midpoint of your calves on the foam roller, hold yourself up with both arms and slowly move from knee to ankle. It may be easier to do one leg at a time. And remember to turn your leg in and out to get all sides of those calves!

4. **Foam-Rolling Your Shins**

   Resting your shins on the roller, lean forward in a tabletop position and roll from knee to ankle.

5. **Foam-Rolling Your Inner Thigh**

   Lie on your stomach and put the roller vertically next to you, with your right leg bent at 90 degrees. You may find the most sensitive spot is near the knee. This is a good place to hold for up to 30 seconds, as that tightness will eventually pull the knee in causing a poor gait.

6. **Foam-Rolling Your Hamstrings and Quads**

   These two can be rolled in roughly the same way, one by facing the floor and the other by facing the ceiling. With your legs straight, you will slowly roll from hip to knee, first with feet flexed, then with your feet turned out, then with your feet turned inwards. Again, this will help to hit all sides of the muscle.

Beware of Over-Rolling

When you hear instructors tell you to find a sore spot and then stay on it for 30-45 seconds for the knot to release, that's not always the best plan. If something hurts, stop pounding it into the ground! You don't see a bruise and keep pushing on it, hoping to speed recovery.

If the spot is tender, but it's not a spot causing pain during your run, it's OK to spend 30 seconds or so holding your body weight on it with the roller to try and release a knot. Do NOT spend more

Be mindful about using a foam roller.

A quick roll over your legs won't get you results. This is one of the biggest things I've found from all the studies, practitioners, and articles out there. You need to slow down and really spend some time on your rolling, which ensures that you're using good posture (a strong core) and actually working on tight spots rather than just quickly rubbing over the muscles.

Choosing a foam roller

The basic foam roller comes in a variety of sizes and densities. Here's what you need to know:

Size: Longer foam rollers enable you to lay your full back vertically on the roller to massage your shoulders and even conduct some great core work. A smaller roller may be more agile for working on areas like your inner thigh.

Density: The denser the roller the more intense the massage. As your body weight leans into whatever area you're rolling, a roller with less give will create more pressure on the area. Many people find they can handle a dense roller on some areas, but need a softer roller on other areas. I recommend getting the denser roller and controlling the pressure by reducing the amount of weight you put on the area.

Trigger Point Massage Ball

I mention Trigger Point by brand because it's one of the most commonly carried in running stores. While they also offer a dense foam roller with a grid pattern to work more into the muscles, my focus here is on the ball, which allows you to truly get into the deep muscles of the glutes or to consistently roll out your feet. Releasing tension in the feet can actually resolve issues all the way up to your hips!

The Massage Stick

The Massage Stick was actually one of the first tools I was introduced to during my marathon training in 2005. (Yikes, it's been so long!) No one was foam rolling back then, but we were carrying around sticks, even when the airports started asking if they were weapons. I *love* the stick for working on my calves and inner thighs. However, it doesn't

let me get my shoulders, sides, and back the way I can with the foam roller—just another reason we have so many "tools" in our house to keep me running straight.

Rumble Roller

The Rumble Roller has spikey nodes all over. OK, "spike" is the wrong word, but new rollers beware: the Rumble Roller goes deep! The design of these nodes create a more massage-like experience. It's an aggressive roller, but most become accustomed to it within a few weeks.

COMPRESSION GEAR

Originally sold in drugstores to increase circulation for issues like diabetes and arthritis, these days compression gear has undergone a revolution and **my IT Band is in love.**

Compression gear is usually made of 80 percent nylon and 20 percent spandex. It conforms snugly to the body, prevents oscillation of the muscle during impact, and increases blood flow to the area.

Let's break that down in plain English: the reduction of oscillation, or muscle movement, is thought to prevent energy waste and assists in maintaining proper body alignment. Increased blood flow ensures that the muscles are receiving a constant supply of oxygen, which is required to sustain performance or enhance recovery.

Training for a distance event is all about consistency, which means finding the tools that will help you recover faster and stay injury-free. It seems some of the hype about running faster or farther might just be true when you look at the ***long-term impact* of using compression, rather than the impact from a single run**—which is exactly what a brand new study found:

> A new study provides scientific evidence to support the idea that your compression socks are not just fashionable, they're also functional. The study, published in the February issue of the Journal of Strength and Conditioning Research, found that wearing compression socks for 48 hours after running a marathon improved performance on a treadmill test two weeks later.

On a personal level, I swear by running in something like my CW-X Stabilyx Compression Tights on marathon race day to help prevent calf cramps and IT Band pain, as my form may deteriorate in the final miles.

My friend and frequent marathon racer Monica Olivas agrees that compression socks have become a standard recovery tool for her, ensuring she can keep racing week after week.

CONCLUSION

This is an insane amount of information and things to add to an already growing to do list.

Which means, you're now probably overwhelmed and as a result wont' do anything.

So let me be clear, you don't need to do it all! I've been free of IT Band pain for over 8 years now because I do just a few of the moves before every single run and a few more each week as part of a full body routine.

Find ways to easily incorporate the moves into your life, so they become habits.

- Pick 2 or 3 to add to your dynamic warm up
- Spend a few of your evening TV minutes rolling and stretching
- Add in a few moves while you brush your teeth
- Find a way to be consistent

While you're frustrated right now, be patient and do the work, it will go away and you can run pain free. Remember this is about progress and every bit of this is getting you to your ultimate goal of running pain free.

#FORWARDISAPACE