

Unlearning to Run

From barely running to racing barefoot

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March 1, 2013



Why unlearn?

For them, running was a miserable two miles motivated solely by size 6 jeans: get on the scale, get depressed, get your headphones on, and get it over with.

- Ann Trason

My decision to start running didn't happen over night. It kind of built up over a period of 6 months starting with me turning 40 and tearing my ankle ligament while playing soccer with the kids. After limping around for a few months, I started noticing something interesting. The lower my feet were to the ground, the stabler my ankle felt. The moment I put on sneakers or boots, it would take no more than an hour before my ankle would feel terribly sore.

As the months wore on, I stumbled across [Born to Run](#), an amazing book by Christopher McDougall that would change me forever. Despite copious amount of poetic license in the book, I couldn't stop romanticizing running free through the redwoods. I wasn't necessarily thinking of running 100 miles or breaking records. I simply wanted to get out, move, work up a sweat and feel connected to the world around me and come back home without injuries.

The final straw came after seven long, sedentary years, in my startup. During these years, I had almost completely neglected my health, my cholesterol level was at an all-time high and I was overweight with bad eating habits. I wanted a release valve, something to quiet my mind and help me get back time lost with sustained 60-80 hour weeks for many years.

Finally, one day, I hopped on a treadmill and had the most miserable 10-minute run one could ever have! I'm not very proud to say that this included 3 minutes of interspersed walking. My calves were sore, my lungs were dying and I felt completely winded. However in just six months after I started, I ran the [San Francisco Half Marathon](#), barefoot, in **1:52 minutes** finishing in the top 10% of all runners. Less than six months later, I ran the [ZombieRunner Bay Trail Half Marathon](#) in **1:38 minutes**.

As I talked to others that have run marathons, it was readily apparent that they trained for specific events over a certain number of weeks. Their entire running career (if you want to call it that) was focused on this one event, after which, they no longer ran anymore. I was after something else, something that wasn't just a bucket list. What I was after was to teach my body to love running. Not for distance, medals, losing weight, records or events, but purely for the fun of running. To make it part of my subconscious, like breathing. To make it fun, crave for the endorphins and probably the most important; to not get hurt in the process. If you are taking up running in your adult life, there are a number of things going against you. Your born-to-run body has atrophied and has long forgotten that it can do that. With a full-time job, kids, soccer, baseball coaching and plenty of hours sitting in front of the computer, it's hard to find time to run. The worst part? There are too many things to unlearn.

Remember Hilary Swank in [Million Dollar Baby](#)? The way she's shuffling and shifting weights on her feet, practicing her boxing moves while she waits tables at the diner? That's what I was after - little drills you can do all day while in a conference, taking a break from the computer, waiting to pick up kids from school; so before you realize, your body has unlearned itself and is ready to run. After

countless hours of researching, reading, adapting drills and exercises to fit my needs and using my own body as a guinea pig, what follows is what worked for me. A set of fun exercises, drills and stretches that you can practice at home and tips on injury-free running that, less than a year after I started, has allowed my body to run two half marathons each week, without injuries. And I'm just getting started.

This book is broadly broken into three parts, interspersed with narrative on how my own running developed over the course of a year. The first part is **proper running technique**, an essential component of learning to run effortlessly. The second part is a set of **drills and exercises** designed for a busy professional or a full-time parent. The last part deals with **aches and pains** with home remedies. From what I experienced, injury-free running is a destination, not a journey. It takes a little while before you tune into your body to really understand the limits of what it can and cannot do. I hope you enjoy reading this book as much as I enjoyed writing it. My ankle ligament has never quite healed fully, but somehow running hurts it less than sitting around!

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California, 2013

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Proper Running Technique



When you run on the earth and run with the earth, you can run forever.

- The Tarahumara

Do you remember the first time you tried skiing or rollerblading?

Mine was a disaster, on both accounts. I was all tensed up, afraid of falling, held my breath, didn't relax, forgot to bend my knees and was completely wasted even before I began to move. Running is no different, only much simpler, natural and doesn't need any special

gear. It does take a little experience to relearn much that we have forgotten. I wanted to address the techniques up front since they form the foundation of how and where you strengthen your body.

Here are some amazing facts. The human foot has 26 bones, 33 joints, 107 ligaments, 19 muscles and tendons. The 52 bones in your feet make up about **25%** of all the bones in your body. No wonder why stress fractures and tendonitis are common injuries when you first start out. Though, running as a sport, is not all about how strong your feet are. It's an entirely holistic experience that involves your calves, thighs and quads, your gluteus and core muscles for stabilization, your shoulders and arms countering the heel flicks, your eyes to scan the surroundings and what's ahead, your brain to introspect the rest of your body to auto correct on the go. It's like driving a car. Many controls and knobs and yet at some point it became part of the subconscious. You just need to unlearn many things and remember what you were born for.

Proper running technique emphasizes running economy, the ability to put in the least amount of energy to facilitate locomotion. Gravity becomes your friend with the Achilles acting as a rubber band returning a majority of the energy you put in to propel you forward.

I've watched many runners over the last year, observing their gait and posture, how their feet land, if they are over striding, how their arms move, if they look down or up, etc. When I ran the San Francisco Half Marathon, there were runners that were grimacing in pain and some were limping. As I started chatting with them during the race, I learned that some of them had been running for 10+ years, but definitely hurting. There I was with a foolish grin on my face thinking about how the fog over the Golden Gate bridge felt amazing as it rolled

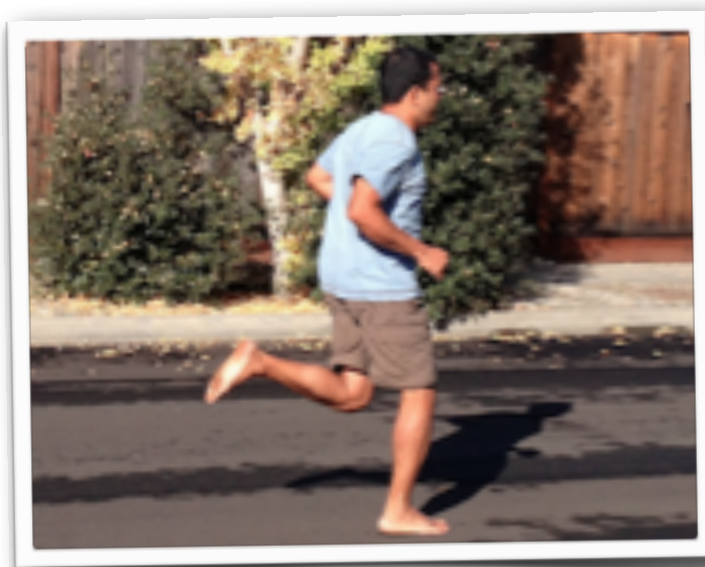
over my body. Maybe I was being silly, but the joy of running is when you relax your body and you lean into it. Of course there are times you push it and demand it to climb 2000 feet straight up, but running ought to be fun and you can make it fun. These simple techniques helped my running style to be simpler and more efficient. Proper running technique has the following aspects:

- Forefoot or Mid-foot Strike
- Balanced Neck and Head
- Relaxed Shoulders and Arms
- Relaxed, Curled Fists
- Lean on the Ankles
- Knees, Slightly Bent
- Short Strides to Land Under Your Body
- Running From Your Core



Technique: Forefoot or mid-foot strike

Quick, take off your socks and shoes and run on asphalt or any other hard surface for 10 to 20 yards. Just a quick short sprint. For that brief duration, your body will temporarily unlearn years of bad habit and you'll notice something interesting. No matter how much you want to, you **cannot** land on your heels naturally, because it hurts like crazy! If you were to take a [video of yourself](#) (this one's mine) you'll also find that your strides would've suddenly gotten shorter with your feet landing automatically under your body.



Most runners that try out on [Vibram Five Fingers](#) or other minimalist shoes run with heel strike. Result? Plantar Fascitis, knee and back pain, etc. My experience has been that if you are starting out or transitioning into minimalist shoes, go barefoot completely at least until you learn the proper technique. Once you've mastered that, you can run a marathon in rain boots and you'll still do okay.

Technique: Neck and Head

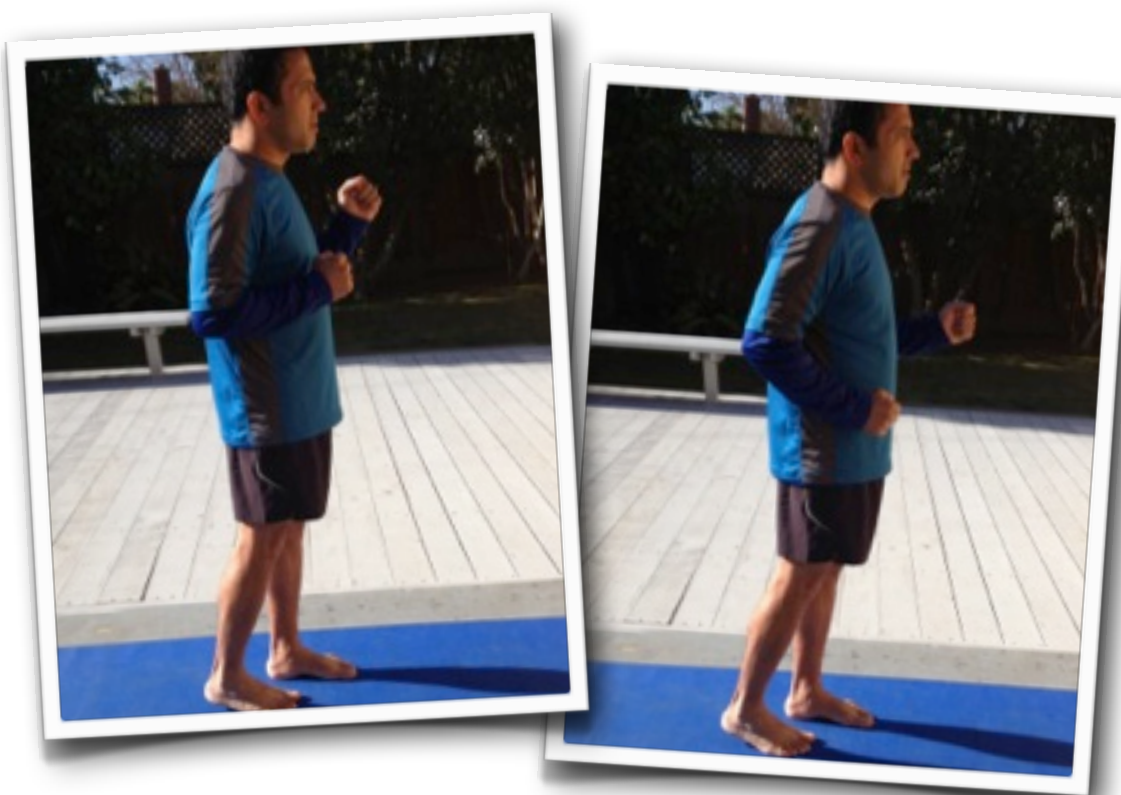
Many runners tend to look down while running. You want your head to be looking straight, firm without bobbing with peripheral vision soaking up the environment around you. It's the same rule when you are riding a motorcycle, rollerblading or skiing. Don't stare at your feet! Keep your head up and have your eyes scan 15 to 20 feet in front of you. If you are trail running, don't forget to look around and take in the scenery! There's a reason why you ran so far to get up to the vista point. Might as well stop and think about how great it is to be out there feeling alive!



Besides, you might just catch the sun going down, an arc of a rainbow across a waterfall, a pelican swooping down for a landing or a little hare running across the trail. Little things that let you break into a smile.

Technique: Shoulders and Arms

Relax your shoulders instead of hunching them up. After I run for a while, my shoulders tend to tighten up and I have to consciously remind myself to drop them down, breathe and relax. Bend your arms at right angles at your elbow and as you run simply move your arms back and forth parallel to each other. Not too high and not too low. The movement is just slight and enough to feel like it's driving your body forward.



Instead of cycling your arms or flailing all over the place, try to minimize the movement and focus on running economy. The less energy you learn to put in, the more you can relax and run far without injuries.

Technique: Holding a Butterfly

The very first week of my running, I was on the treadmill suffering through my miserable 10 minute run when someone came up to me and said, “Make a fist, but pretend that you are holding a butterfly¹ in the palm of your hand. You don’t want it too tight to hurt it, nor do you want it too open that it flies away.” I thanked the stranger and was a little puzzled by this unsolicited advice. Later on I found out that he regularly runs the Boston Marathon!



Clenching your fists tightly has a number of bad side effects. Your arms tend to tighten up affecting your shoulders and then your posture. So remember the butterfly. To unlearn clenching, you can also run with a potato chip (any small and fragile object will do) in your hand and try to not break the chip during the run.

¹ Photo courtesy of [tabor-roeder](https://www.tabor-roeder.com/)



Technique: Lean Forward on your Ankles

Remember running economy? That's what leaning forward on your ankle gets you. It puts gravity to work by letting you fall forward, continuously. This little technique also helps you with the knee drive where your knee comes up naturally during the forward motion without you having to lift it. Less the energy put into running, the longer you can run. If this technique is on your unlearn list, don't worry, there are simple drills described below that will remind your body aware of the leaning pressure against your ankles.



The human body is naturally designed as an [inverted pendulum](#), one that has to continuously adjust itself to be stable when standing, walking or running. We are simply using this tendency to fall to propel the body forward.



Technique: Bend your Knees

Watch [Johnny Mosley](#) during his Gold Medal Run during the 1998 Olympics. What do you see? His upper body is straight and looks like it's hardly moving as he comes down the moguls. What about the knees? Holy moly, can you believe the shock that they are absorbing? That's what we are looking for, though this video exaggerates the movement quite a bit!



We rarely have to bend our knees when we are walking or standing. Not for running though; the slight bend in the knees activates the calf muscles and Achilles to absorb the impact shock. If you are barefooted, bend your knees and try landing on your heels. Doubly impossible. During the unlearning of this technique, your body will automatically try standing tall. However if you are doing it properly, it will feel unnatural at first. Once you've mastered the technique, what you'll find is that the harder the surface the easier it is to run.



Technique: Land Under Your Body

If you are leaning forward on your ankles and bending your knees, you will very likely be landing directly under your body, but it's worth checking. Over striding is a direct result of heel striking and is a huge source of injuries that starts with your heel and works its way up to your knees and back. When I first started to run, I found that I was over compensating and landing too far on the balls of my feet. Result? Sore ankles after a few runs. Once I realized that this was the problem, I dropped my heel a little to end up with a mid-foot strike and the problem went away.





Technique: Run From Your Core

Sit on a chair with a straight back and feet flat on the ground. Now lean forward a little and cough. Feel those muscles in your abs that tighten up? That's part of your core and they are key to stabilizing your body and maintaining your posture while running. When you run as you lean forward on your ankle, use your core. In the first few months, I used to consciously feel my core (touch them to see if I'm using them or not) during the runs to see if there were active. Pay attention to this especially when you start getting tired, since this dramatically alters your posture for the worse. Your neck drops, your back slouches and soon you are going to be exhausted.



Just like bending your knees, you need to unlearn to use your core for running. There are a few simple exercises to strengthen your core. I'll admit, I don't have a 6-pack (and you don't need one), but they are stronger now than when I first started running.



Technique: Breath and Relax

Of all the techniques described in the book, this is by far, the most critical and the toughest of all (and the one without a picture)! You can train your body to master the rest of the techniques since they are mostly muscle memory. However, relaxing and breathing takes a very conscious action on your part. On the breathing front, I often get into a zone during running when I'm breathing deeply through my nose with four steps of inhaling and 4 steps of exhaling. Or three if you are winded, either going too fast or climbing a hill. [Diaphragmatic Breathing](#) maximizes the oxygen intake in your lungs and this is critical to getting much needed blood into all those hard working muscles.

As I will describe later, the unkept secret in endurance running is to intersperse periods of brisk walking during your long runs. This is a perfect time to introspect your body, check for posture adjustments, take long deep diaphragmatic breaths and relax to immerse yourself in the surroundings.

These are the key techniques that you'll need to work on during the first few months of running, until you don't have to think about them anymore. We'll spend the next chapter of the book looking at how your first three months of running look like. From there we will move on to the Hillary Swanson type of drills and exercises that you can work on all day, no matter where you are.

Baby Steps



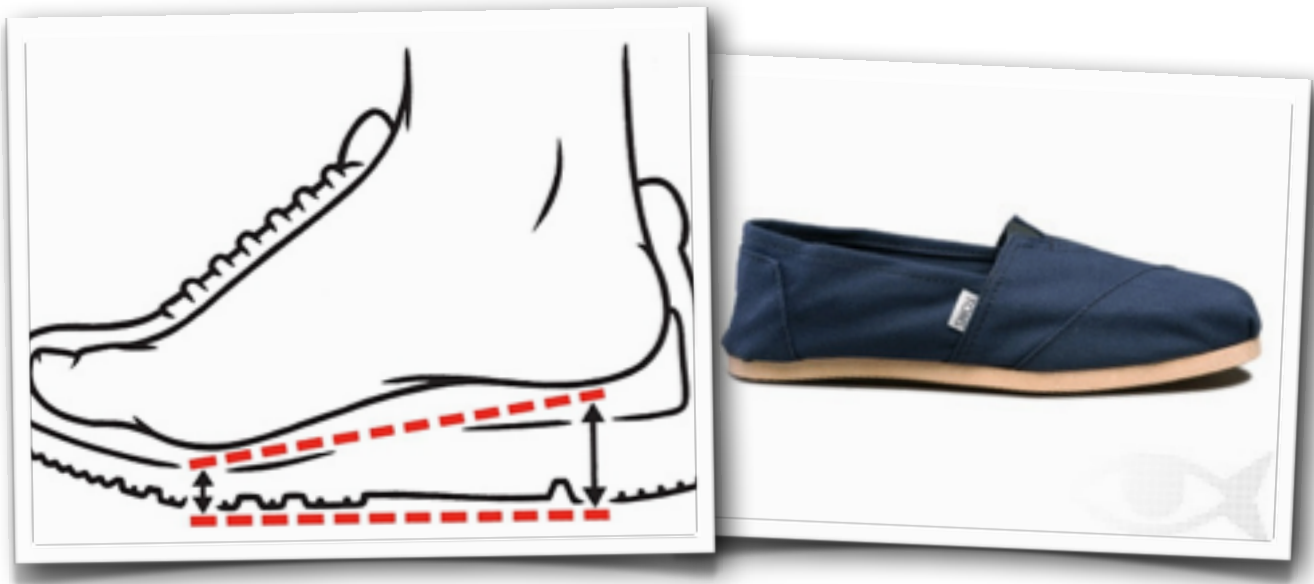
Easy, light, smooth and then fast.

- Caballo Blanco

OK, disclaimer - I mostly run barefoot² or with my [Luna Sandals](#). I own [Vibram Five Fingers](#), Xero Shoes and New Balance Minimus, but have never run in shoes. However, this is just my personal

² Photo courtesy [thomasletholsen](#)

preference. My realization after all of this experimenting with running is that it's not about the barefoot running or the shoes, it's about **barefoot running style**³. Once you've figured out the style and mastered the techniques, it really doesn't matter what you wear. There are folks that have run marathons in [flip-flops](#) and in a [full business attire](#), with a tie to boot. I have personally run downhill alongside my kids as fast I as could on [Tom's](#) and didn't feel any difference.



That said, one of the best ways to unlearn is to go barefoot. I would highly recommend that you do all the drills and exercises in this book barefoot. Going barefoot (at least for the drills and exercises) is bound to shock your body and accelerate the unlearning, but you'll be amazed at how quickly this let you connect with the surroundings. There's a reason why foot massages are amazing; your feet have the most number of nerve endings! If you are not comfortable going barefoot, there are a growing number of [zero drop](#) and [minimalist shoes](#) that can help you run with proper technique.

³ Picture courtesy of [Men's Journal](#)

Getting Started

I walk slowly, but I never walk backward.

- Abraham Lincoln

When you are ready to run, start by simply walking around your house barefoot for 10 or 15 minutes at a time. Your calf muscles and your Achilles tendon⁴ (amongst other things) are key to running successfully and the goal here is to stretch them out and strengthen them and have them work for you again. To quote Da Vinci, “The human foot is a masterpiece of engineering and a work of art.”



Most beginners complain about sore or tight calves and pain around the Achilles. The reason is simple. When you wear shoes without zero drop, your heel is higher than your toes and over many years your Achilles have shortened. Proper running technique requires that you don't heel strike. Instead you choose either mid-foot strike or forefoot

⁴ Photo courtesy [Osteoarthritis Blog](#)

strike. This causes your Achilles to stretch a lot more causing pain in the early days.

My first few weeks of running were almost completely on a treadmill with my [Vibram Five Fingers](#). Having forgotten how it feels like to run, I mostly focused not on speed or mileage but a few simple things like landing mid-foot (no heel strike), leaning just a little forward so gravity can guide me to the subsequent steps (also known as falling forward), keeping my head balanced and straight, eyes looking forward and straight ahead and finally my arms right-angles at my elbow with relaxed shoulders moving just the necessary amount. Not to mention constantly reminding myself to breathe. Just like driving a car for the first time, I was initially overwhelmed with all the controls and knobs. After a while though, the muscle memory and subconscious take over and I didn't have to think about the mechanics of driving. Running for the first time or after a long time is no different from learning to drive a car. Pay attention to these little details carefully until your body starts remembering the obvious.

I continue to work on these aspects while I run, constantly focusing on the biofeedback and inspecting if something's bothering or doesn't feel right. Sometimes, I feel like I'm having an out-of-body experience where my brain is looking at my body from the outside noting my posture, aches and pains, things not sounding right, etc. To that end, even now I refuse to listen to music while I run. There's a sense of awareness and total immersion that comes when you pay attention to your body and your surroundings taking it all in and relaxing into it.

The most important thing to remember at this stage of running is **patience**. Muscles tend to strengthen fairly quickly, deceiving you into thinking you can fire up all jets, but tendons and bones take

much longer. Also, when injured, tendons take a long time to heal. So while you might be itching to increase your speed or distance, give your body time. Otherwise you run the risk of getting injuries like tendonitis, shin splints or stress fractures. A simple technique I used during the early days was running no more than 5 to 10 minutes a day, but doing it every day. Just a quick trot around my neighborhood. To give my calves time to strengthen, I also ran on grass fields (like in a high school track and field) which were easier on my feet. However “run everyday” was just a general guideline. If something in my body was hurting and telling me to back off, then I would listen, get some rest and healed before going out again. Remember the goal is not setting records. It’s to run, have fun and come back home without injuries.

Adventure Deficit Disorder

I ain't saying it's right. But you're saying a foot massage don't mean nothing, and I'm saying it does.

- Vincent, Pulp Fiction

I love trail running and where I live, there are some amazing trails within just an hour drive. There's something always exciting about trail running because it brings out the wild side within all of us. The trees, roots, stones, wildlife around you, birds chirping, ups and downs – it's the most exhilarating experience when you summit a hill, fully winded just to find that you are surrounded by a cathedral of redwoods. City running? Nah, not quite the same adventure, you would think. Just a boring run with your iPod, eyes closed to just get it over with. Question is, what if you could make every run around your neighborhood a new adventure, every time?



When I watch my kids move from point A to point B, it's never in a straight line. They always seem to be pulling off parkour⁵ moves and

⁵ Photo courtesy [marcogomes](#)

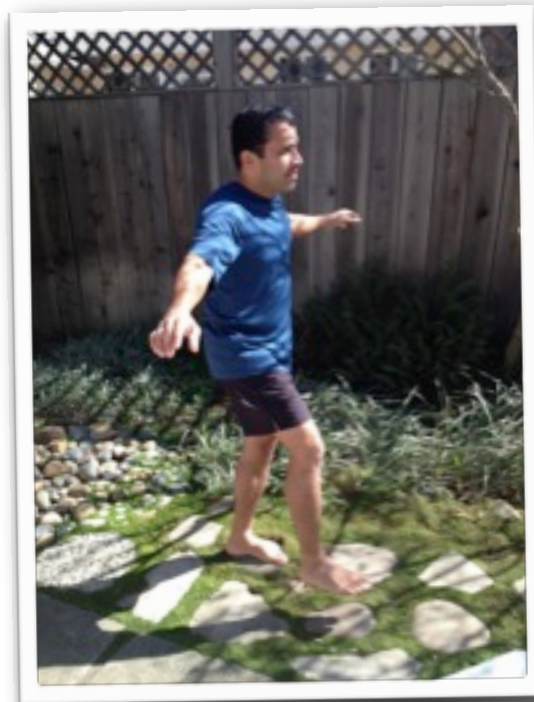
having fun moving their bodies, hopping, skipping and jumping. The human body is an amazing feat of engineering, but the brain is designed to optimize around repetitive tasks and shape your body to do those really well. Hence the phrase muscle-memory. As you get older, your body, accustomed to certain range of motion will refuse to try out things in a new way. There are simple ways of curing this adult-onset disorder.

Mixing it Up

The trouble with jogging is that by the time you realize you're not in shape for it, it's too far to walk back.

- Franklin P. Jones

What I learned during the first few months of running is to steadily expose your legs and feet to a diverse range of terrain. If you run the same route every day (like the sidewalk around your house), then your body quickly learns to running that route well. Too well. When you move to a new terrain, your body acts as if it's starting new resulting in aches and pains.



If I ran on the sidewalk one day, I'll run on the tracks the next day and maybe on grass the day after. Even if I am doing laps around the track, I'll run a few laps clockwise and then a few more counterclockwise. These nuances are not that important when you are a kid, because your muscles are still supple and all the playing

and doing things at top speed fire up a diverse range of muscles. Not so for an atrophied adult body that's completely forgotten how to run.

Curb jumping and balancing over parking curbs while running are more fun ways to confuse your body and make it learn to adapt to new environments. Even when I am running on pavement and I happen to come across a grass mound, I would jump at the opportunity for a little detour. A little patch of gravel next to the sidewalk? It's got my name written on it! These little tricks brought out the kid in me and were perfect ways of remembering how I used to feel running, jumping and climbing when I was much younger. Besides, mixing it up breaks the monotony of city running and makes every run a trail run. So next time you see a sprinkler spraying water on the sidewalk? Run right through it with a smile on your face.

Becoming a kid, again

To really unlearn my body and push running into my subconscious, I had to relearn what my body could and couldn't do. That involved exposing my legs to a wide range of drills, exercises and terrain. Nothing that was exceptionally difficult or hard. Did you know that Nelson Mandela, a college cross-country standout who, even in prison, continued to run seven miles a day in place in his cell? What about Emil Zátopek, three gold-medal winner at the 1952 Summer Olympics? He ran to work and then ran home. He would put his dirty clothes in his bathtub, fill it with water and run some more on top of the clothes. Excellent resistance training not to mention how clean his clothes would get at the end of his run.



In the first three months, I spent a fair bit of time in my backyard, jumping, skipping, stepping up and down the patio deck and even running in place, because I was a little too shy to go out and run. The key for me was to really explore and listen to my legs and learn what they could with all sorts of silly experiments. My kids would affectionately mock me and call me weird. What did they know? They didn't have the atrophied body to rebuild.

Eurythmy, is an expressive movement art developed by Rudolf Steiner in the early twentieth century. Primarily a performance art, it's also used in education as a movement therapy. It's about teaching kids proprioception and the space around them and how their body fit in that space. My sister's first job was in a Japanese software company. How did they start their morning? By doing calisthenics for 20 minutes on the lawn outside.

Lack of physical activity has given us heart attacks, hypertension, diabetes, obesity, high cholesterol and a pathetic diet. To realize you can do away with most of these by simply getting up and moving your legs is simply remarkable. So don't sweat on training on a specific terrain. Explore your body and learn what it can do. The more diverse the training ground, the more fun you are going to have!

Cross Training

Ultimately, elite athletes do not run fast because of their shoe sponsorships; they get shoe sponsorships because they run fast.

- Barefoot Ken Bob

In the early days of running, your muscles, tendons and bones are still catching up to your aspirations and can fatigue easily. They also need time to recover before the next round of abuse begins. Once I got hooked on the endorphin release, I couldn't stop getting out and getting a cardio. That's where cross training comes in. It's about finding alternate activities and sports that you like while you take a break from running. I am terrible at swimming, but love roller blading and biking and the occasional workout on the elliptical⁶.



When my calves were sore, I hopped on the bike. Top of the foot pain? Roller-blading for an hour. Sore ankle? An hour on the elliptical. Effectively I was activating different parts of my body to strengthen it

⁶ Photo courtesy of [uscpsc](https://www.uscpsc.gov/)

as a whole, while also giving my running muscles time to heal. This was a virtuous cycle. The strengthening from running was helping me go further and faster on my roller-blades and bike. And each time I returned to running, I was stronger and my distances started getting longer.

Almost a year into running, I'm finding cross training to be less of a regimen and more of a fun break from running. I don't need it now, but in the early days, it was a necessity. Remember that learning to recover fast is as critical as the ability to run long distances without injuries.

The 10% rule

It's at the borders of pain and suffering that the men are separated from the boys.

- Emil Zátopek

This rule is a time-proven principle of learning to run faster and further. Its importance comes from the fact that most running injuries are caused by overuse, fatigue and pushing one's body beyond what it's ready for. The key is sustaining a speed and distance for a short amount of time until your body is comfortable. Then and only then increase one or the other by no more than 10%.



For example if you are running 10 miles at a time, then when you decide to bump it up, run 11 miles, no more. Four months into my running, I went for a run on a beautiful California day. It felt so good, I kept going until I suddenly realized I was 6+ miles away from where I started. I had to limp my way back and ended up with an ankle pain that lasted a couple of weeks. I was lucky that it wasn't worse than that.

Curiosity and Inquisitiveness

We run, not because we think it is doing us good, but because we enjoy it and cannot help ourselves.

- Sir Roger Bannister

As a technologist and a geek, I've had my share of staring into the depths of my Mac Book screen for hours on end. I've spent days with just the sound of my keyboard typing away, unaware that my body is atrophying, that I'm not getting my Vitamin D from going out in the sun or stuffing myself with processed food without even thinking about whether it's good for me. The human body is an amazing feat of engineering and unfortunately very much underused. As someone wise said, "There's no work-life balance, there's only life balance."

Just like starting a new job or learning a new musical instrument, the first few months can be overwhelming. You are trying to remember proper techniques for running, paying attention (possibly for the first time) to biofeedback and what your body is telling you, aches and pains and a sense of impatience that can drive you nuts. I've come back limping from 3 mile runs wondering what just happened. Or when my shins hurt and I found out there's such a thing called shin splints. How come nobody ever told me?

As we start the next chapter on drills, workouts and strengthening exercises, take a deep breath. Take the time to relearn your amazing body. It's worth every bit. There is a trail filled with redwood trees waiting on the other side for you.

Unlearning Your Body



Exercise is for people who can't handle drugs and alcohol.

- Lily Tomlin

Bit by bit, these drills, exercises⁷, stretches, skips and jumps helped reshape my body to become a runner. Some of them focus on strength, some on proprioception and some others on posture and

⁷ Photo courtesy [Berzinator Fitness Designs](http://BerzinatorFitnessDesigns.com)

making running part of your subconscious. This list is not meant to be exhaustive or complete. Nor is it an overall fitness program. Just a set of routines that I pruned down to work for me to run injury free without requiring a trip to the gym or buying expensive equipment. I practice most of these anywhere; like when I'm at home, in a conference call, waiting to pickup the kids from soccer or taking a quick break from the computer. These exercises fall into the following broad categories:

- Posture
- Proprioception
- Strengthening
- Agility
- Core and Abs

Even if you don't run barefoot, I would highly recommend to do these exercises barefoot. After the initial weird feeling of sensory overload from a part of a body that's been shut off for a long time, you'll be amazed at how quickly your feet become alive again!

Posture

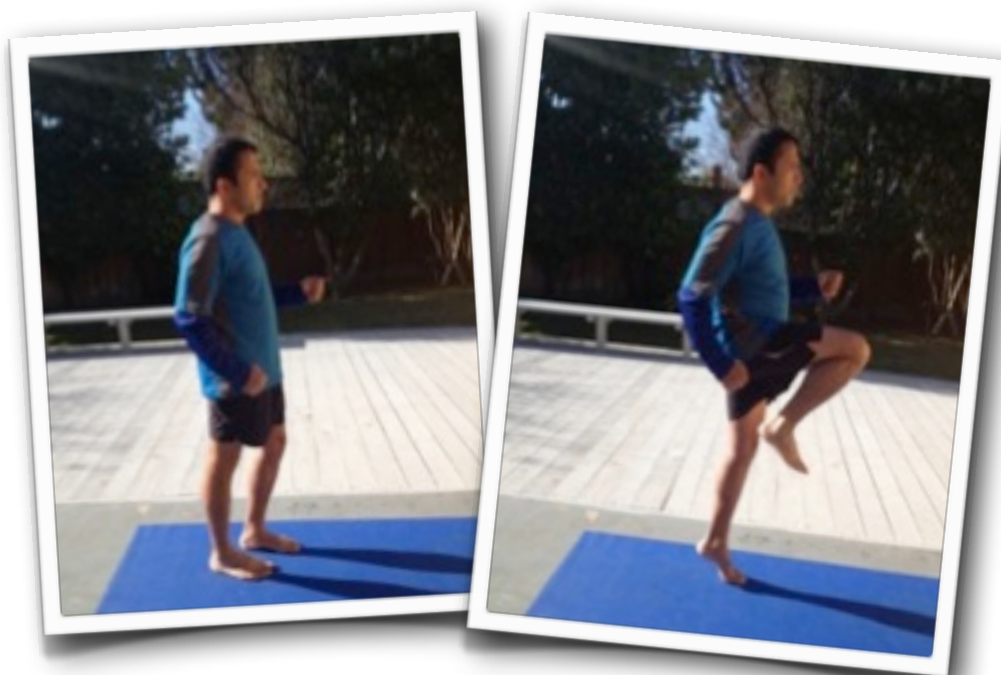
Having a good running posture has many distinct advantages. For one, it has better running economies since you expend less energy to propel yourself forward. Less energy also means you can run longer distances without burning up. Finally, proper posture helps you run softer, springier and quieter minimizing injuries in the process. We already covered proper running techniques, but the next two exercises are great way to relearn what you've long forgotten.

- 100 ups
- Wall Push Offs



Posture: 100 Ups

If there was one simple exercise that captures the essence of running, that you can do anywhere, all the time, it's the 100 up. Created by [W. G. George](#) in the 1800s, it's an exercise that helps with you balance, proprioception, calf and foot strengthening and epitomizes running in a few simple moves.



Stand tall with knees bent slightly and elbows at right angles and parallel to each other. Now drive up your right knee up to your waist while simultaneously lifting your left heel. Swing your elbows slightly (right elbow to the front and left to the back) to balance the knee drive. Ensure that you are maintaining proper posture always. Drop back to where you started. Do 10 such knee lifts with your right foot and then switch.

Progression: Increase knee lifts from 10 (to 20, 30, ...) before you switch. Also add [ankle weights](#) to increase resistance.



Posture: Wall Push Offs

Remember the running technique where you have to lean forward on your ankle? This drill helps your body to unlearn this to see how it feels to have that little stretch on your ankle.



Stand tall facing a wall, arms length from it. Now lean forward and fall into the wall with your feet planted firmly on the floor. Do you feel your Achilles stretching as well as that tightening on the top of your feet between the ankles? Internalize that since you'll need to feel that very same sensation when you are running. Use your hands to break the fall, hold for a second and push the wall to return to first position.

This drill is much more about unlearning than strengthening. Do sets of 10 and increase as you get more comfortable.

Proprioception

Proprioception, from Latin proprius, meaning “one’s own,” “individual” and perception, is the sense of the relative position of neighboring parts of the body and strength of effort being employed in movement. Knowing the limits of your body and the spatial awareness and biofeedback they generate, is imperative to make movement a subconscious action.

Proprioception is what allows us to learn to walk in complete darkness without losing balance. Without the appropriate integration of proprioceptive input, an artist would not be able to brush paint onto a canvas without looking at the hand as it moved the brush over the canvas; it would be impossible to drive an automobile because a motorist would not be able to steer or use the foot pedals while looking at the road ahead; a person could not type or perform ballet; and people would not even be able to walk without watching where they put their feet.

The next few drills are all teaching proprioception to your feet, ankles, calves and lower limbs so they relearn what it feels like run again.

- One Legged Balance
- Balanced Toe Touches
- Balancing Act



Proprioception: One Legged Balance

This is an amazingly simple drill you can practice anywhere, any time of the day. During the drill if you were to look down on your feet, you'll notice the amount of muscle activation that's going on. The little tarsal bones wiggling around, your toes splayed and adjusting, trying desperately to keep you in balance and your calves quivering and shaking while getting stronger at the same time.



Stand tall with knees bent slightly. Lift your right knee until it is waist high with your left foot planted firmly on the ground. Hold for 10 seconds and return to the starting position. Switch legs and repeat 3 times.

Progression: Increase the duration of the balance to 30 seconds and then to a minute. Also add [ankle weights](#) for extra resistance.



Proprioception: Balanced Toe Touches

This is an extension to the previous drill and is a continuation of teaching your body about proprioception. Attempt this one after you feel comfortable doing one legged balance for 30 seconds.



Just like the previous drill, drive your right knee to balance on your left foot. Let's call this position 2. From here, lean forward and touch your toes while at the same time extending your right leg behind you while straightening it. Return to position 2 first and then to the starting position. Do 10 repeats and then switch legs.

Progression: Also add [ankle weights](#) for extra resistance.



Proprioception: Balancing Act

If you've mastered the last two, you are starting to get comfortable with balancing on flat surfaces. Time to turn it up a notch. If you don't have a [foam roller](#), you can get one from any sports store from \$20 to \$30. Just make sure you get the firmest one that fits your budget.



Mine was complete misshapen after three months. Foam rollers have many uses and I'll cover them in the aches and pain chapter.

Place your right foot on the foam roller while preventing it from rolling with your left foot. Slowly lift your left foot so that you are balancing with just your right foot. Hold for 10 seconds and return.

Caution: Hold on to a wall or some support until you get the hang of it or you run the risk of twisting and spraining your ankle! You can also start with a [half round foam roller](#) so it doesn't roll away.

Progression: Try this on a [balance board](#) as well as other inclined surfaces.

Strengthening

Fatigue (muscles, bones, tendons) is a huge reason for many running injuries and lack of strength only exacerbates this. The stronger you get, the easier it becomes to run and have fun. The following list of exercises is part of my daily repertoire. I don't always do all these in one go, but mix them up over a course of a week.

- Alphabet Tracing
- Towel Crunches
- Heel Walks
- Heel Drops
- Ballet: Heel Lifts
- Ballet: Toe Curls
- Ballet: Ankle and Toe Resistance
- Ballet: Ankle Laterals
- Lateral Leg Raises
- Deep Squats
- Lunges
- One Legged Squats
- Step Downs



Strengthening: Alphabet Tracing

This strengthening exercise is taking you back to the ABC's. You can do this when you are facebooking, tweeting on your couch while watching a ball game or lying down on a yoga mat. First time I tried, I barely made it to letter Q before I had to take a break. It's a great way to strengthen your ankles and your calves.



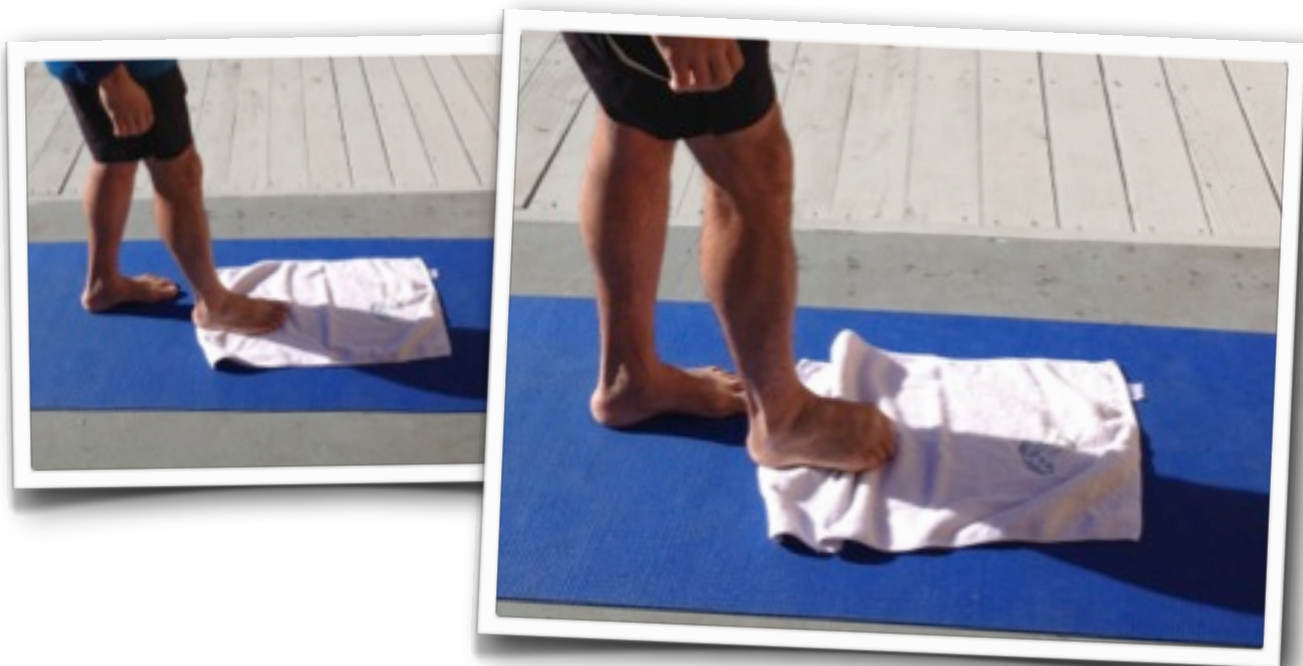
Sit straight back on a chair, extend your legs, use your big toes as markers and trace the alphabet, A through Z. While I trace the alphabet with my right foot, I trace the mirror image on my left. Take breaks if you feel your ankle or your calves are sore or getting tired. Once you get to Z, swap so you are tracing the alphabet on your left foot and the mirror image on the right.

This is also a great warm up exercise before a run as it gets the blood flow through your lower limbs.



Strengthening: Towel Crunches

Towel crunches are great to work all the little muscles and bones on your feet and unlearn them back to life again. Once you learn the basic movement and the gist of what exercise is trying to accomplish, you can skip the towel and focus on the movement. The crunches mimic a large part of what happens to your feet when you run barefoot and so strengthening with the towel directly results in better, stronger runs with less chances of stress fractures.



Stand tall on a hard, smooth floor, place a small towel under your feet and anchor that with your heel. Now with your heel firmly planted, lift up your toes, grab some of the towel and crunch them towards you. After about 10 crunches, take a break, spread out the towel again and repeat with your other leg.

Progression: Increase the number of crunches as you get stronger.



Strengthening: Heel Walks

As much as you don't want to heel strike during running, heel walking is a simple but effective way to stretch out your calves. Incredibly effective against shin splints, I find heel walks to be a great warm up exercise too.



Stand tall, lift the balls of your feet and walk 10 steps on your heel. You should feel the tightening of your calves when you do this. When I first had shin splints, this turned out to be a great home remedy to work the calves and make them feel better.

Progression: Increase the number of steps on each repetition. Add [ankle weights](#) to make this more challenging.



Strengthening: Heel Drops

When switching from wearing shoes for most of your adult life to going zero drop, minimalist shoes or barefoot, your Achilles and calves are prone to major aches and pains in the early days. This exercise works to extending your Achilles so you can feel more comfortable without heel cushioning or support. This is another classic that you can practice on any step.



Stand at the edge of a step on the balls of your feet with your heels dangling. Using both feet lift up your heels as high as they can go, drive your right knee to the waist and slowly drop your left heel until you can't drop anymore. Bring your right knee down and return to the initial position. Do 10 repetitions before you switch legs.

Progression: Increase the number of repetitions and/or add [ankle weights](#) to make this more challenging.

A Quick Detour: Ballet and Running

Not too long ago, I went to a dance performance with my older son. I saw some amazing kids there doing ballet and guess what they had on their feet? Nothing. Nada. Zilch. They were doing the pirouettes, relevés and curtsies with no cushioning. Didn't it hurt? How can they do this for hours while my feet hurt so badly just after a few miles of running? So I started digging around.

I found out the ballet dancers and runners have very similar injuries. When we start running, we may not be curtsyng around or doing pirouettes when we run, but there are elements of ballet dancing that are very much applicable in running. Check out this report from the Physical Medicine and Rehabilitation Clinics of North America titled [Foot and Ankle Injuries in Dance](#) with this interesting quote.

*Previous studies have reported injury incidence rates of **67% to 95%** among professional ballet dancers...The foot and ankle of a dancer are particularly vulnerable to injury and represent **34% to 62%** of all injuries reported.*

Here's another one titled [Injury in ballet: a review of relevant topics for the physical therapist](#) that has similar injury rates. Here are some relevant quotes from the reports:

*The literature indicated that **65-80%** of ballet injuries are in the lower extremity, 10-17% occur in the vertebral column, and most of the remaining percentage are upper limb injuries (5-15%).*

That was interesting to me. I wasn't the only one busting my ankles and feet when I started to run. What do these ballet dancers do beyond just stretching on bars and rails? Turns out they've figured out all kinds of interesting exercises. I found four that worked for me, were super easy to do, and incredibly effective for strengthening the calves, feet and ankles all in one go.



Strengthening: Ballet: Heel Lifts

The positions of the feet in ballet is a fundamental part of classical ballet technique. I usually pick the first or second position (Remember I'm trying to run, not dance) and then lift the heel as far as I can and then bring it back down. I started with doing 3 sets with 10 repetitions in each set and slowly worked my way over many months to do 60 at a time. Oh, you'll feel your calves melt like butter with this one. Rest up between sets. I do this many times a day, during computer breaks, while filling up my car at a gas station, sometimes in meetings, etc.



A simple variation of this is to use a table or a sturdy chair with most of your weight on your arms. Now lift up your heel in either the first or second position and hold it there for 10 seconds. Do three repetitions with tons of rest between them. I started with 10 seconds and then slowly worked up to longer durations over many months.



Strengthening: Ballet: Toe Curls

These officially fall under the weird-are-you-really-sure-about-this category of exercises. But I was amazed at the amount of relief and strengthening that this offered for top of the foot pain and ankle pains.

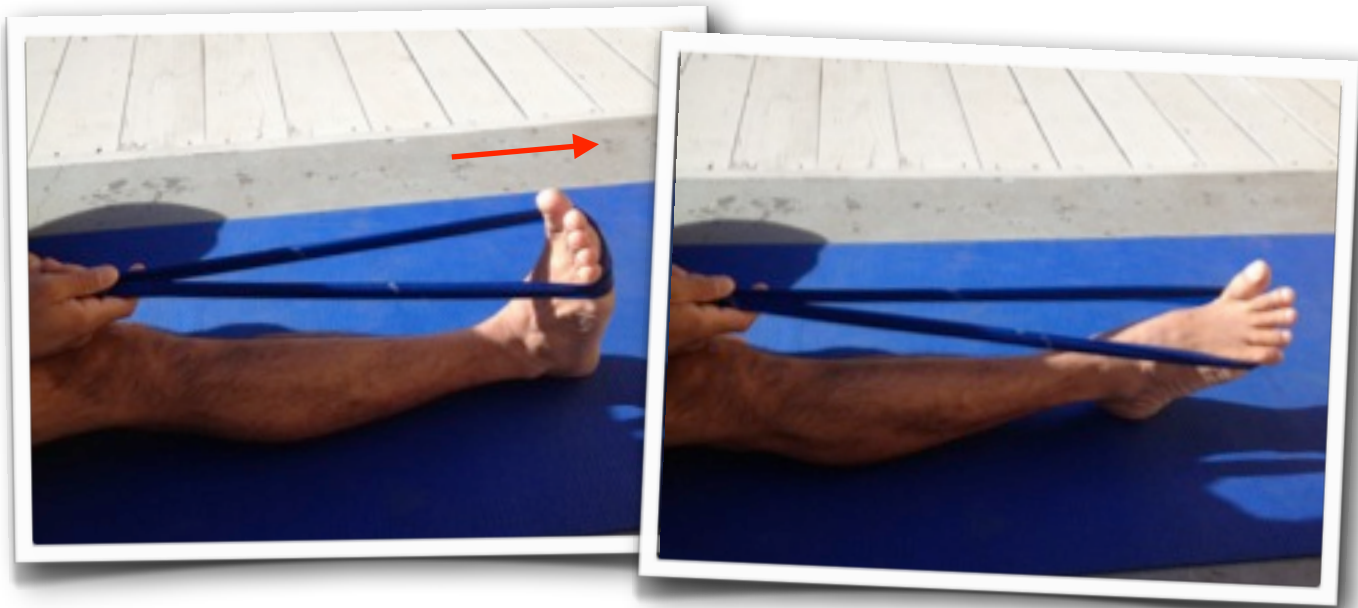


This one is a little trickier to do than the heel lifts, but I can really feel my ankles and feet getting stretched. Stand flat on your feet with arms resting on a sturdy table (or kitchen counter). Shift your weight so most of it is on your arms. Now curl the toes of one foot and then the other. Over time as you get stronger, you can slowly shift more weight to your legs. Hold this for 5 or 10 seconds, until you feel the stretch. Lean forward to move the weight back to your arms and uncurl your toes to make them flat. I personally love this one and it feels so good to stretch out your ankles and feet after a 10-mile run.

Strengthening: Ballet: Ankle & Toe Resistance



One of the common injuries in barefoot runners or runners that switch to minimalists and immediately crank up the miles is stress fracture. Especially on the metatarsals. These are little tiny bones that run across at the top of your feet from your ankles towards your toes. This exercise focuses squarely on strengthening your ankles as well as the balls of your feet.

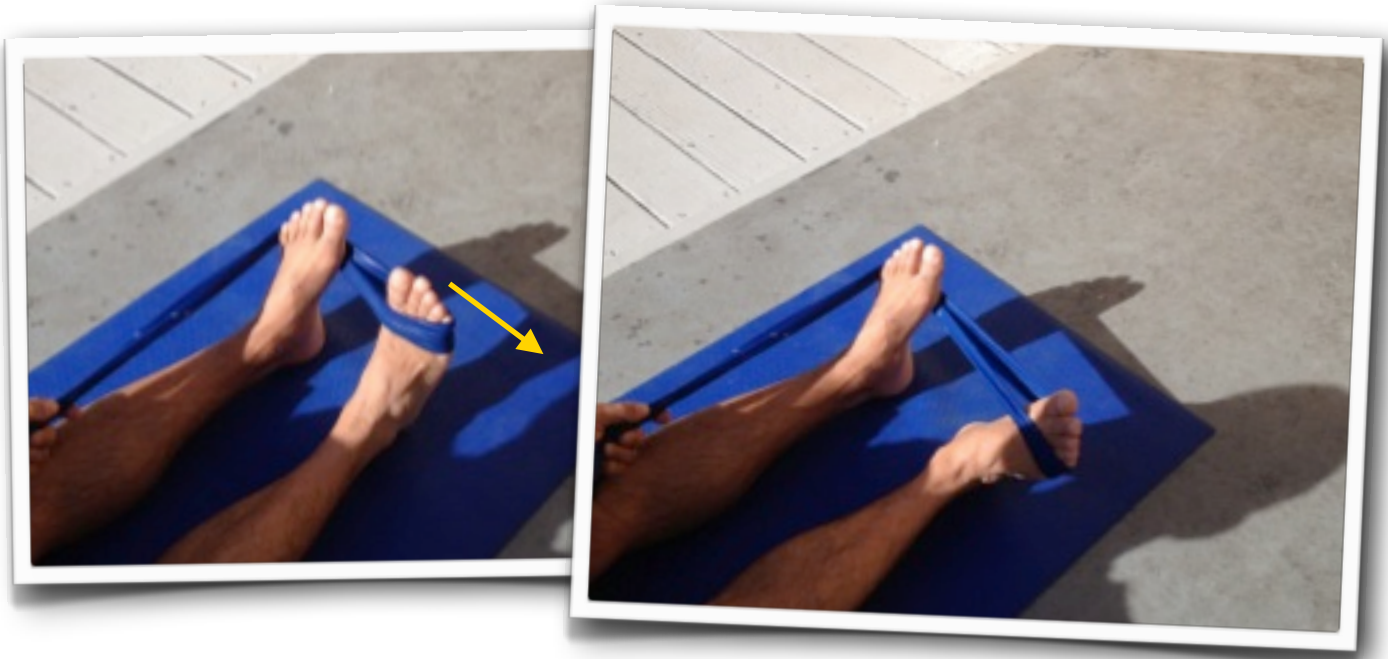


You could do this with a [Thera-Band](#), though an old cotton T-shirt works much better. Sit on a yoga mat with your legs straight in front of you and toes pointing up. Cover one foot with the old T-shirt and pull it towards you so there's resistance. With your toes still curled up, push forward with your ankle and when it's as far as you can take it, and then point your toes away from you. You should feel the resistance on your ankles and toes. Bring it back slowly and do 3 sets of say, 5 repetitions each. Especially when you are starting to run, this is such a great way to strengthen all those little bones, muscles, tendons and ligaments on your atrophied feet.



Strengthening: Ballet - Ankle Laterals

This one's a must if you like running on trails or irregular surfaces like gravel. This exercise, like others in this book, is something you could do while watching TV or while you take a break from your computer.



Sit with a straight back and feet flat on the ground. Use the [Thera-Band](#) around your left foot, run it under your right foot and hold with your right hand with the appropriate amount of resistance. Now, with your heels firmly planted on the ground, rotate your left ankle outwards further stretching the [Thera-Band](#) and then return to starting position. Do 5 repetitions and switch to your right ankle.



Strengthening: Lateral Leg Raise

This is a great exercise to extend your hip abductors as well as your glute muscles. This is yet another exercise that you can do when you take periodic breaks from sitting in front of the computer. Stand tall and lift up your right leg sideways as far you can take it and then bring it back. Do 5 to 10 repetitions and then switch to your left leg.

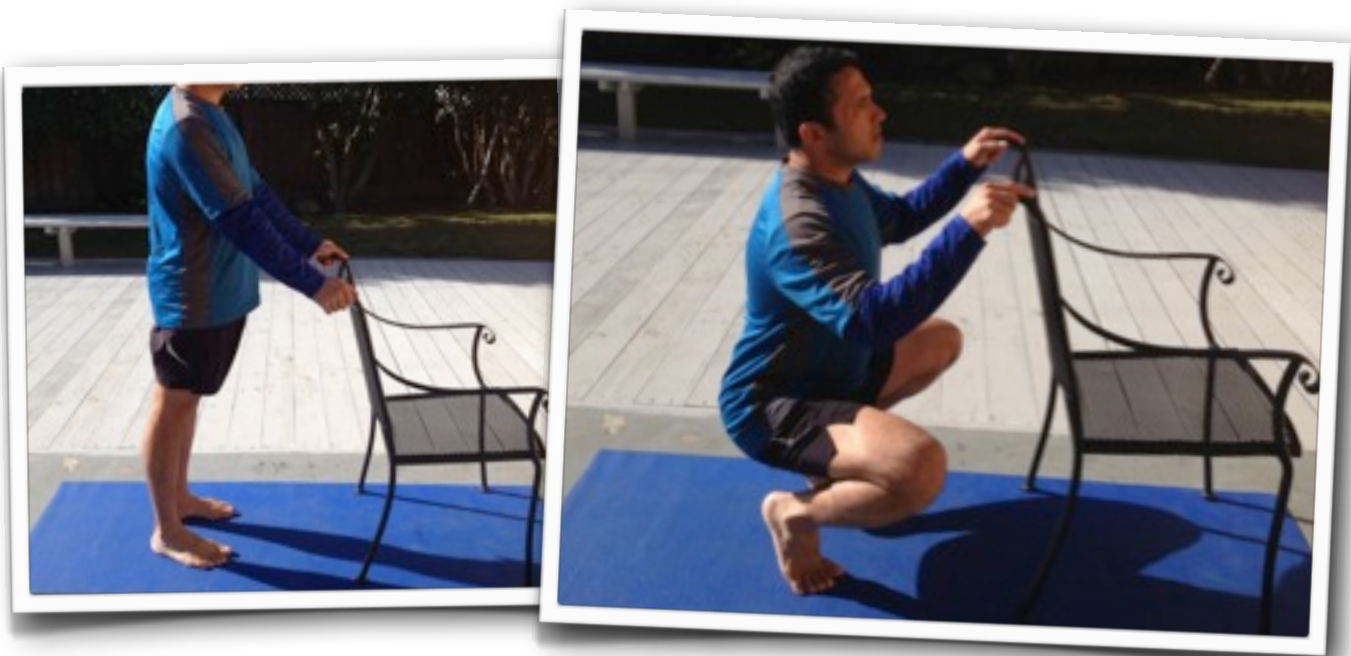


Progression: You can add [Thera-Band](#) for extra resistance as well as [ankle weights](#).



Strengthening: Deep Squats

Squats are simply the easiest way to work all of your leg muscles, especially your quads and thighs. What I found was that staying on the balls of your feet when you go down all the way dramatically increases proprioception and activates the feet a whole lot more. To do a deep squat, stand tall and squat all the way down with your heel raised. Hold for a few seconds before you stand. Repeat 5 to 10 times and do sets of three.

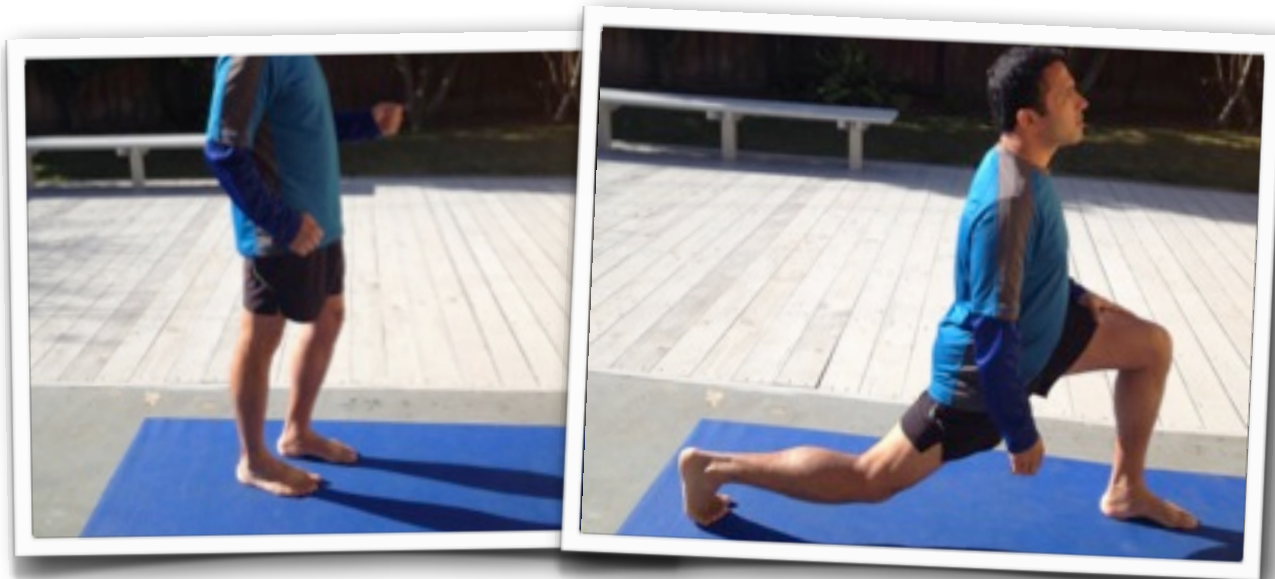


When you first try this, you might want to use a chair or the wall for extra support since balancing on the balls of your feet takes a little getting used to. I wasn't doing squats and lunges as much in the early days until I got hit with the IT Band Syndrome. More on this when I cover common aches and pains.



Strengthening: Lunges

It's hard to believe that such a simple motion can pack such a large punch. Lunges are the quintessential runner's exercise since they are versatile, focus on the muscles runners use and don't need special equipment.



Stand tall and lunge forward with your right leg until both knees are bent 90 degrees. Make sure that your left knee doesn't touch the ground and that your right knee doesn't spill past your right toes. Keep your back straight and engage your core by pulling your belly button toward your spine. Use the muscles in your front leg to pull yourself forward to the standing position. Repeat with the other leg so that you are moving forward in a straight line.

Fun Fact: Jameson Rodriguez, a student from Modesto High School in California holds the record for the fastest lunge mile, 25 minutes and 21 seconds, with a total of 1,370 lunges!



Strengthening: One Legged Squats

You can do this exercise wherever there's a chair. It's such a simple but powerful way to build your quads, thighs and strengthen your knees. This is a key part of my repertoire and a great exercise that can help you with hill climbing and downhill running.

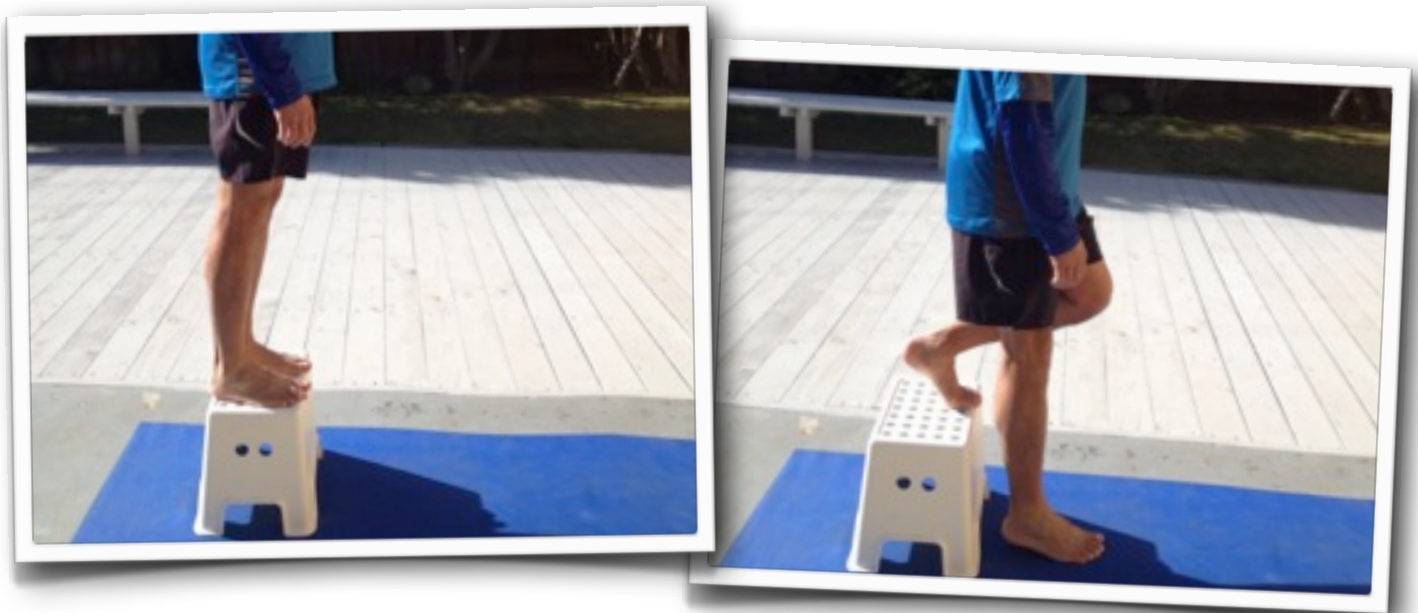


Find a chair of appropriate height that when you sit on it with your knees at right angles, your feet are flat on the ground. Stand in front of that chair and lift your right knee until it's at your waist. Now slowly squat down on your left leg until you briefly sit on the chair. Push up with your left leg and come back to the starting position. Repeat 5 times and then switch legs.



Strengthening: Step Downs

Last on my strengthening repertoire, I mostly discovered this when I was experimenting with the best way to strengthen my knees to improve my downhill running techniques. Just like most of my other exercises, all this one requires is a step or a curb.



Stand tall with knees slightly bent at the edge of a step. Now slowly step down with your right leg and when your right foot touches the ground, use the muscles on your left leg to pull yourself back up to the starting position. Do 5 repetitions and then switch legs.

Caution: If you feel that your knees are not that strong, then skip this one or practice with a smaller step.

Another Detour: 80% Full, The Art of Eating Healthy

Barefoot running wasn't the only change I made in my lifestyle. As I embarked into the adventure of running barefoot, I started another experiment. Why confuse the body one way, when you can torture it two ways right? I went cold turkey on dairy, eggs and meat (I still eat fish sparingly to get my vitamin B12 and because I enjoy it) the same day I decided I was going to run. I also started paying close attention to processed food and stopped eating anything with an ingredient list that resembled a sushi menu. Turns out eating healthy is not just about what you eat, it's also how much you eat.



I first heard the term “80% full” from my father-in-law who has a body mass index of zero. Yeah, I know, I’m exaggerating, but it’s not too far from the truth. During a meal together, he would be the first one to finish with a comment that he was 80% full. He apparently had stomach ulcer at some point and decided to eat less from then on. Digging deeper in the last few months, I found that this is an amazing way for eating healthy and to lose weight too. I read about the people

of Okinawa in Japan in an awesome book by Dr. Daphne Miller called the [Jungle Effect](#). The Okinawans practice something called the [Hara Hachi Bu](#) which in Japanese translates to “Eat until you are eight (out of ten) parts full.”

They are the only human population to have a self-imposed habit of calorie restriction. Along with high life expectancy, these islanders are also noted for their low mortality from cardiovascular disease and certain types of cancers. [Willcox2 \(2007\)](#) compared age-adjusted mortality of Okinawans versus Americans and found that, during 1995, an average Okinawan was 8 times less likely to die from coronary heart disease, 7 times less likely to die from prostate cancer, 6.5 times less likely to die from breast cancer, and 2.5 times less likely to die from colon cancer than an average American of the same age. Now that’s saying something.

Reading about this and putting this to practice were two very different things for me. For one, the biofeedback between my stomach and my brain is so slow that by the time my brain tells me I’m full, I’m already stuffed. This was the most difficult thing for me to unlearn. However, until I could teach my body to tell my brain that it was full, I started to use visual cues to figure out how much I should eat.

- Grande burrito? Eat the first half and take the other home.
- Awesome buffet⁸? Don’t go back for the second helping.
- Half size orders in restaurants? Order that instead.
- Loosening your belt? Might be too late already!

The most effective technique for me was to ask myself: If I ate this, can I break into a 10-mile run right after? If you’ve ever tried

⁸ Photo courtesy [dragontomato](#)

running after wolfing down a double-double burger, you'll know what I mean. All that sloshing around inside makes it incredibly uncomfortable to run. Eating healthy and running is a wonderful virtuous cycle. I lost 20 pounds within six months after I started running and it seems to have stayed off. I've come to re-appreciate what an amazing thing the human body is. In the technology-centric world that we all live in there's so much emphasis on the brain (math and science) that we don't pay attention to our body until it's too late. There's even an [evolutionary theory](#) that claims our brains got to that size because of running!

Agility

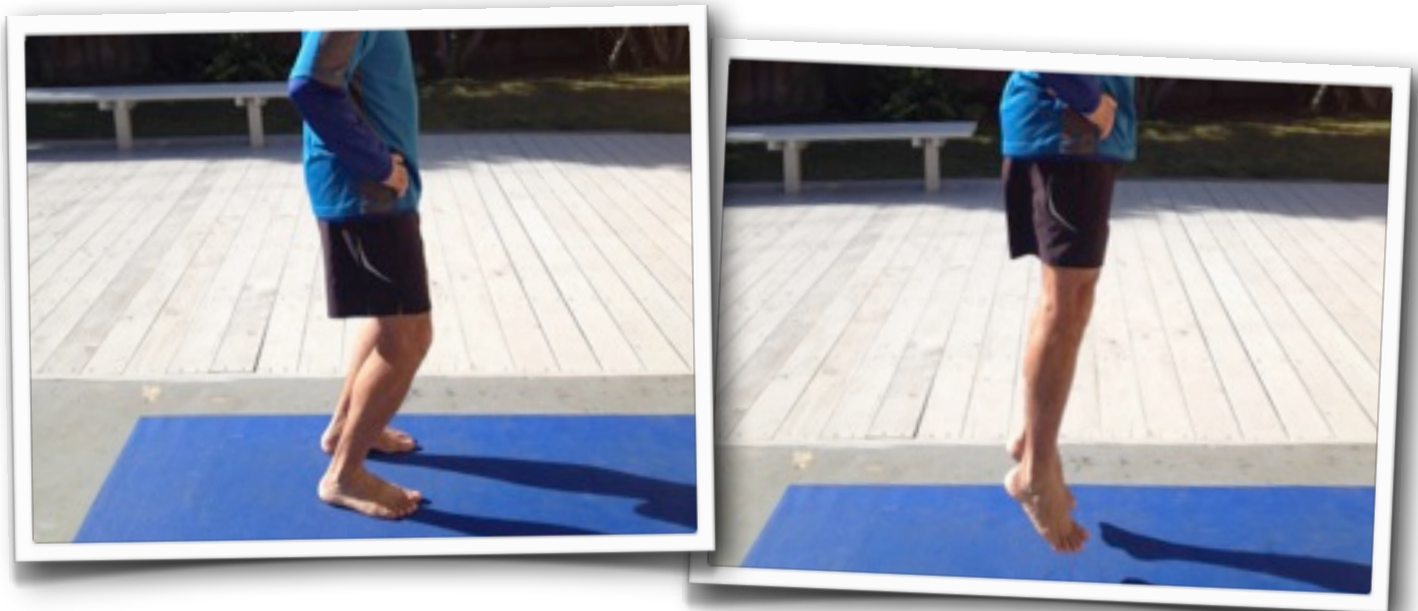
At least for me, exercises shouldn't all be serious stuff that requires tremendous amounts of focus and determination. Not all the time, anyway. It's good to have fun, smile a little and learn to be a kid all over. The skips and jumps, while are amazing drills to develop springy feet, are also equally fun. We will be covering the following drills:

- Standing jumps
- Hurdle jumps
- Lateral jumps
- High knee skips
- Heel whips



Agility: Standing Jumps

The easiest of the lot, find a hard surface like asphalt or hard wood floor. Simply jump up (doesn't have to be high), landing on both feet. Make sure you are landing on the balls of your feet, as quietly as possible. When you come down, bend your knees a little to absorb the shock and push up again. Keep the contact to the floor to a minimum and focus on being light and springy. Do 10 to 20 repetitions and progressively increase to higher counts.



Progression: When you comfortably do about 50 jumps in one go, add a [skip rope](#) to make it a little more challenging. Trotting around with a [skip rope](#) is also a great way to unlearn how to land your feet under your body.



Agility: Hurdle Jumps

As you pick up your speed (typical in downhill running), your strides get longer, your knees drive up faster with your hip adductors doing extra bit stretching to sustain that speed. When my kids saw me experimenting with this, they called it the deer jump.



Start running at a slow pace and on the third step, pretend you are jumping over a hurdle and extend your right leg further up on the stride. You should feel the stretch in your hip adductors. Make sure that you continue to land your feet under your body to avoid overstriding. If you start counting with your right foot forward, this will be right, left, extend and right. Now starting with your left repeat this movement with your left leg. As you run, you'll notice that every third step you will be alternating the hurdle jumps.



Agility: Lateral Jumps

Lateral jumps strengthen your ankles while building balance and explosive power for trail running. Stand on your left foot with your right knee up to your waist. Now jump to the right and when you've regained balance jump back. Do 10 jumps (5 to the right and 5 to the left) and then switch feet.



Progression: Jumping sideways on to a step and then down again.



Agility: High Knee Skips

High knee skips generate explosive power in your quads by having very quick knee drives while on the run. Similar to hurdle jumps, the skip is on every third step.



Start on a slow jog and on your third step, bring up the knee as high as you can and drop it back so your foot lands under your body. If you start with the right foot forward, then it looks like this: right, left, right-knee drive with your left foot starting the next cycle.



Agility: Heel Whips

Heel whips activate your hamstrings by having the same fast motion as the knee drives in the last drill. In AYSO⁹, the kids call this one as butt-kickers. You can easily do this drill while standing in the same position instead of while on the run.



Start on a slow jog and on your third step, bring up the heel as high as you can and drop it back quickly without losing stride. If you start with your right forward, then it looks like this: right, left, quick right heel whip with your left foot starting the next cycle.

Progression: Once you are comfortable with this, you can do the heel whip on every step instead of every third.

⁹ American Youth Soccer Association

Importance of Core in Running

I hate crunches, I really do. I'd rather take a nap than do even 10 crunches, but the more I read and learned about the importance of core in running, the more it made sense to me. Think of your limbs as levers that push you through space. Without a solid core, those levers will be inefficient. A strong core (not just abs, but also back and obliques) transfers more of the energy you put into forward propulsion. Core strength will also give you better posture, less back pain and prevent injury.

Disclaimer: I don't have a six pack and not particularly working towards one either. However, I found the following four exercises to be very effective in improving core strength:

- Exercise Wheel
- Plank
- Bridge
- Chin Up Ab Crunch



Core and Abs: Exercise Wheel

Used by martial arts experts like Jackie Chan, the [exercise wheel](#) is a little package that packs a punch. The exercise wheel is to core what the 100-ups is for posture. It simultaneously works your core, shoulders and arms in one simple movement.



Kneel and sit on your knees with both hands on the exercise wheel in front of you. Make sure that the top of your feet are flat on the ground. Breathe deeply, tuck your abdomen in and roll the wheel forward until your arms are fully extended. Release your breath as you roll the wheel back to the starting position.

Progression 1: When fully extended, hold in that position for 2 to 3 seconds before returning to starting position.

Progression 2: Start from a standing position with your hips bent while clutching the wheel with both hands. When fully extended, keep your knees from touching the ground. Roll back to standing position.



Core and Abs: Plank

There are a number of variations of this simple, yet powerful exercise to strengthen your core. Lie flat on your stomach and then pull your upper body up on your elbows with hands together. Raise your knees so you are resting on your elbows and the balls of your



feet. Face the floor, keeping your back straight. Hold this position for 30 seconds to begin with, extending the time as you get stronger. There are number of variations on the basic plank that you can progressively increase in difficulty.

Progression 1: While in plank position, lift up one leg, hold for 30 seconds and then repeat with the other leg. Add [ankle weights](#) for additional difficulty.

Progression 2: Elevate your legs on a couch or a [yoga ball](#) and repeat Progression 1.



Core and Abs: Bridge

The bridge is a great way to isolate and strengthen your gluteus and hamstrings. You will also find that it's a good core stability and strengthening exercise that targets the abs as well as the muscles of the lower back and hip.



Lay on your back with hands to your sides, knees bent and flat on the floor. Make sure that your feet are under your knees. Raise your hips up to create a straight line from your knees to your shoulders. Squeeze your core and try to pull your belly button back toward your spine. Hold this position for 30 seconds lower yourself back to the floor.

Progression 1: After you raise your hips, lift one leg up so it's on a straight line from your shoulders to your knees. Hold for 30 seconds and repeat with the other leg.

Progression 2: Elevate your legs on a couch or a [yoga ball](#) and repeat Progression 1.



Core And Abs: Chin Up Ab Crunch

I have a [doorway pull up bar](#) in my house and found this ab crunch mostly by accident. First time, I think I did about 3 crunches! It's quick, takes only a couple of minutes and you can do this any time of the day (well, except after a full meal).



Pull yourself up on the bar until your elbows are at right angles. Now curl up and lift your knees all the way to the chest and then drop them down. Make sure you keep your back straight and use your core to lift the knees. This simple movement really works your abs while strengthening your upper body as well.

Three Months Later



Every blister is an opportunity for a callous.

- Author

At the end of three months, I was running up to 4 miles every other day, mostly on my [Vibram Five Fingers](#) or my Xero Shoes, when the most curious accident happened to me. I was taking a quiet nighttime stroll around the neighborhood and was getting bothered by the loud

flapping of my flip flops. I decided to throw caution to the wind, take the risk of getting poked by a runaway stapler or a nail and started walking barefoot and I was an instant convert! The joy of feeling the ground and the thermals on the sidewalk caused by the evening sun and the sprinklers is simply indescribable. Those little pebbles on the sidewalk? Massage city. My brain was wriggling with sensory overload from a part of the body that it hadn't heard from in a long time. I remember this so vividly, because I broke into this wide grin and felt like a kid in a candy shop. You see, the human foot has the most amount of nerve endings in the body and sometimes you wonder why a foot massage feels amazing. I was hooked and there was no turning back.

Running on grass covered with the morning dew is another favorite of mine. I realize that barefoot running is not for everyone and there's plenty of myth around this. Most people have this incredulous look on their face when I tell them that I run barefoot. What I found though was my feet felt stabler and happier when they were touching and feeling the ground. The biofeedback and the proprioception build a virtuous cycle for injury free running. I wish I had pictures of my feet before I started running. My arch is now more pronounced, the feet just feels meatier, stronger and my 8½ New Balance doesn't fit me anymore!

My First Race, Sort Of ...

It's very hard in the beginning to understand that the whole idea is not to beat the other runners. Eventually you learn that the competition is against the little voice inside you that wants you to quit.

- George Sheehan

One lazy weekend with my family in downtown Campbell, I happened to run across a poster for an 8K (about 5 miles) run. I was really curious, but super nervous. When you are running just 4 miles, every mile that you add matters a lot, since it violates the 10% rule and comes as a huge shock to the body. Besides, I had been running by myself until now, still experimenting and figuring out what was working and what wasn't. At this point I was very self conscious and had all these burning questions in my mind.

- Was my running posture okay?
- What if I'm the last one to finish?
- Will I get injured during the run?
- Was it okay to walk during the race?
- Do I have to finish by a certain time?
- Will I be the only one to run barefoot?
- What if I can't finish?

It seems that getting embarrassed in public is against human nature. As tempted I was to just try it out, I felt too shy to go through with it. I told myself that it was daylight savings time, I was going to lose an hour of sleep and it was going to be pretty hard to get up that early to get to the race in time. However, I came up with a compromise and decided to cheat to help me gain confidence. The evening before the event, I sneaked up to the starting line and ran the 8K route in 45

minutes! This was a huge confidence boost and really made me feel that I could do it.

When I brought it up to my friend, he was pleasantly surprised and mentioned, “Wow, 9 minutes/mile is a pretty good pace!”. I had no idea what was good and what wasn’t since until the first three months, I had no clue of my pace. I was simply running for a certain duration (and sometimes distance) without paying attention to speed or pace. Proper technique and getting reacquainted with my body again were more important than how fast I was running. I was implicitly measuring my pace by gut feel, my breathing and how winded I was during the run. I know runners that actively measure every run with Apps like [Strava](#), [Run Keeper](#) or [Daily Mile](#). I personally use Strava, though sparingly. The main reason is because I got burned once staring at numbers on a treadmill.

I was out on a business trip and decided to jump on the treadmill at the hotel gym in the morning for a half hour run. I rarely run on treadmills, but I figured this was just a convenient thing. During the run, it was very difficult not to pay attention to the calories burned, the pace, number of laps, distance run, elevation gain and a whole set of metrics that were constantly in my face. While the pace on the display clearly read 9 minutes/mile, my legs and my body were telling me that I was going faster than that. Maybe the treadmill calibration was off, or maybe the incline was too high, but I could feel it and yet I ignored it. Result? My ankles were sore for the entire next week. All because I refused to pay attention to what my body was saying and focused too much on numbers. So now, I only record distances and pace occasionally as a checkpoint to gauge my progress. Instead, I spend my runs focusing on posture, breathing, taking in the surroundings and just enjoying myself.

Walk, Don't Run

The moon was out and I saw some sheep. I saw some sheep take a walk in their sleep. By the light of the moon, by the light of a star, They walked all night from near to far. I would never walk, I would take a car.

- Dr. Seuss

As my distances kept increasing, I was finding it harder to run extended stretches of time. I kept telling myself that I had to run the whole time without resting or pausing. Was I just being Macho? Maybe so. Maybe, I didn't know any better.

One of the nights, I was pouring through various ultra running blogs and articles and came across how even elite runners walk difficult portions of trails just to cruise on the downhill run. So that was the dirty little trick that someone forgot to tell me!

Walking is definitely considered not cheating. It's totally fair and kept me out of injuries as I started to increase my running distance. I interspersed 1 to 2 minutes of periodic walking into my long runs. At first it was 1 minute of walking every 4 minutes of running. Then it became 2 minutes of walking for every 8 minutes of running. And these days it's 18 and 2. Why these numbers? It's just easy to look over my watch to figure how long the intervals are without doing any mental math. The cool part is that this is a great way to cover long distances without injuring yourself. The walking cycle is when I drink water, pay closer attention to my legs and feet and maybe even get a bite to eat. Is my ankle doing okay? Are my shins hurting? These are all great questions to ask your body. It also turns out that the walking muscles are completely different from the running ones. So your body

gets a break and you can use the walking cycle to recharge on the move.



However, before I could completely relax on the run and got used to cursory glances at my watch, I used the [GymBoss iPhone App](#) for a little while. This free App has very simple interval timers you can setup to make it beep at 4 minutes and then a minute after, etc. I liked this App in the early days of running, because I was already processing tons of biofeedback from my body and didn't want to keep track of one more thing. So a gentle audible reminder forced me to escape out of my trance and pay attention to my walking cycle.

To Treadmill or Not?

To sentence a man of true genius to the drudgery of a school, is to put a racehorse on a treadmill.

- Samuel Taylor Coleridge

I've always been averse to running on treadmills, mainly because it's too boring for me to run in the same place for hours on end. To be able to see and hear birds chirping, feel the trail under your feet, the cool breeze drying the sweat glistening off your forehead and the sprinklers coming on suddenly catching you unawares all make up for the most amazing adventure when you run outside. That's just me though. However, there are things you need to watch out for when running on a treadmill¹⁰.



I only realized this much later when I was experimenting on the best way to run downhill. The most important thing to watch out for when running on a treadmill is the incline setting. An incline setting of “0” is effectively the same as running downhill. Here's why. When you

¹⁰ Photo courtesy of 29638108@N06

run downhill with full strides, you land on your foot and gravity carries you further down. This is exactly the same as the treadmill belt moving backwards under your foot. On a flat outdoor surface, the asphalt doesn't help you propel forward at all. It's the lean on your ankle that does that.

For a beginner runner this subtlety is easily lost and you can injure your knees early on in your running career. So increase the incline setting to something that you are comfortable with. The second most important thing is cover all those wonderful metrics that are shouting back at you with a towel and run for a certain duration focusing on your breathing and posture. The vanity metrics are the last thing you want to be measuring while your body is unlearning itself to run. There's a simple fix for this problem though. Get up, go outside and breathe in the fresh air.

Trail Running

I love running cross-country ... You come up a hill and see two deer going: "What the hell is he doing?" On a track, I feel like a hamster.

- Robin Williams

My aspiration and dream when I decided to start running was to run through Redwood Trees on a long trail run. However, I kept holding back, because I felt that I needed to run longer than it took me to drive up to the trail. All my running until 3 months were almost completely on paved trails, asphalt and side walks. Once I got comfortable running around 5 to 7 miles, I finally worked up the courage to explore a trail run.



Luckily, the Silicon Valley has the most amazing trails, most of which are less than an hour drive away from where I live. After running the 8K, I figured the time had come for me to try out trail running. I grabbed my VFF (I wasn't quite ready to run trails with my bare feet just yet) and hit the [wildcat loop](#). I had been to this park quite a few

times with my family, but the 800 foot climb came has a huge shock. It was completely different from running flat trails on pavement! Huffing and puffing, tripping over some stones, roots and regaining balance, I made it to the vista point at the top to be treated for a spectacular view.

As the sun rose across the Silicon Valley, engulfing me in its warmth, I realized that this was why I started running. To get to all these amazing places with just a bottle of water and a couple of cliff bars. The run down was a new experience too since I had to bend my knees, shorten my stride to stay in control and pitter patter my way down without busting my knees. Many months later, laps on the [wildcat loop](#) trail would become my training ground for my first ultra marathon, a 50 km run through redwood trees, the [Big Basin Ultra Marathon](#).

Here's a simple trick for running uphill as a beginner; "When you can't see the top, you walk it off." Just constantly remind yourself that walking is totally okay. Chuck your ego, listen to your body and you'll get back home without injuries.

Aches and Pains



It's at the borders of pain and suffering that the men are separated from the boys.

- Emil Zátopek

As far as I'm concerned, injury-free running is a destination, not a journey. What I really mean is that, after the little while it takes for you to get to know your body, it is possible to run injury free. However, when you are starting out you tend to overdo things or over

exert without knowing, resulting in some various injuries. Learning to recover and heal fast is as important as learning how to run with the proper technique. Ultimately though, the minor aches and pains are just a way for your body letting you know to back off and give it time to strengthen.

After extensive reading, researching, experimenting and adapting these therapies to work for my body, I was able to devise home remedies for most of them. The key here was to pay close attention to what my body was telling me. There's an old joke where a patient tells the doctor, "Doc, if I do this, then it hurts" and the doctor's answer is "Well, don't do that!".

What I learned looking back was that most of my injuries were a result of either increasing distance or speed too fast (the 10 percent rule) or going on a new terrain (like from running on grass to running on pavement). For the unlearning runner, every little thing that's new has to be introduced to the atrophied body in a slow, gentle way until it relearns what it has long forgotten.

The most curious thing about my injuries was that most of them were knee down. During these six months of serious mileage on my feet (the most I've run my whole life), there was no back pain. Even the knee pain I ended up getting turned out to be IT band syndrome. Give your body enough time while pushing it just the right amount and it seems like it knows what to do. After all, we are supposedly [Born to Run](#).

- R.I.C.E.
- Sore Calves
- Achilles Tendonitis

- Shin Splints
- Inner Ankle Pain
- Outer Ankle Pain
- Top of the Foot Pain
- IT Band Syndrome

Aches and Pains: R.I.C.E.

The mother of all home remedies, R.I.C.E. stands for Rest, Ice, Compression and Elevation. I ice my calves and feet after every longish run, whether it feels sore or not. Just a quick 10 minute ice and relaxing after a run helps keep inflammation down and helps in the long run.



Rest is a necessity for your body to give it time to get over the fatigue and rebuild itself. After each minor set back, you'll be amazed at how much your body bounces back after a little rest. **Ice** the aching spot with an [ice pack](#) for 10 minutes every hour. When I had top of the foot pain or ankle pain, I've even submerged my feet in a tray full of ice cubes giving my feet an ice bath. **Compression** wraps limit the swelling, if any and can provide minor pain relief. If you feel throbbing or too much pressure, loosen the wrap. Finally **elevate** your legs above your heart, if possible. The simplest way of doing this is to lie on a couch, propping up your legs with a set of pillows. Combine this with icing, grab a book (like this one) and get some rest. You've earned it.

Aches and Pains: Sore Calves

Sore calves are most certainly the number one injury for anyone that's starting to run. Going zero-drop, minimalist or barefoot only makes this injury that much worse. The forefoot strike promotes a much higher utilization of your calf muscles that can get tired very easily. Beyond the strengthening drills and R.I.C.E., there are a few simple remedies for curing sore calves.



The simplest one is to break down the scar tissues with a high density [foam roller](#). Place the foam roller on a yoga mat, sit down with a straight back with legs extended in front and your right calf on the roller. Cross your left leg over your right for extra downwards pressure. Lift yourself up with your hands and move back and forth along the entire stretch of your calf. Repeat 10 times and switch legs. Foam rolling your calves is also a wonderful way to warm up on a cold day.

The second treatment that worked for me came from an unexpected source: my chiropractor. Dr. Rachel Frozenfar specializes in sports medicine and I have had quite a few appointments with her for

hurting my shoulders (roller-blade fall), my ankles (soccer injury), back sprain (roughing with my kids) and a host of other weekend warrior activities. She introduced me to the [Graston Technique](#), which is a patented form of instrument-assisted soft tissue mobilization. This supposedly helps clinicians to effectively detect and treat scar tissue and restrictions that affect normal function.



The Graston Technique uses a set of 6 stainless steel instruments with various concave and convex shapes to mold them to the contours of the body. Much like a tuning fork, the instruments resonate in the clinician's hands allowing them to isolate adhesions and restrictions and treat them very precisely. The trouble is you have to be certified in the technique and the instruments cost \$30. What I figured out was that the blunt end of a stainless steel dinner knife worked like magic for the calf muscles. After every run, in the first few months, I would come home, grab the knife and work the blunt end back and forth on the calf muscles for a minute or to on each leg. With this little trick, I could immediately feel the breaking down of scar tissues and the relief that followed suit. Unlike the IT band or other parts of your body that might be hard to reach, the calf muscles are readily accessible for self treatment.

Aches and Pains: Achilles Tendonitis

Achilles Tendonitis is another very common injury for late bloomers and those that switch to minimalist shoes. Achilles Tendonitis is a condition that causes pain along the back of the leg near the heel. The Achilles is the largest tendon in the body. It connects your calf muscles to your heel bone and is used when you walk, run and jump. Various studies done by evolutionary biologist [Daniel Lieberman](#) indicate the Achilles Tendon acts as a rubber band during running and when used properly, can store and return a large fraction of the energy to propelling us forward! My own experiments have proved to me that, after learning proper running techniques, the harder the surface, the easier it was to run barefoot.



If you stop to think about it, the sneakers that you've worn for years raise the heel a little higher than the toes. As the years go by, this causes the Achilles to shorten. When you start running again without the heel-toe height differential, the Achilles now has to expand further causing this injury. I was lucky to never get this tendonitis, because I proactively started heel drops, ballet stretches, skips and

jumps and sticking to the 10% rule to slowly allow my Achilles to “catch up” to the lost years.

Tendons, as I learned more about them, are made of collagens that constitute one to two percent of the muscle tissue. As it turns out [Vitamin C](#) plays a key part in the synthesis of collagen. When I had minor forms of tendonitis on the top of my foot, I loaded up on extra orange juice or had copious amounts of [Chia Fresca](#). The combination of the extra Vitamin C and the strengthening exercises kept my tendonitis at bay.

Aches and Pains: Shin Splints

A brand new addition to my running vocabulary, just three months into it. After a three mile run, I came home and felt my left shin really tender and sore. Massaging didn't help and after much research, found out I had this spanking new injury that I never had before called shin splints. First thing I did in treating shin splints was R.I.C.E. That seemed to help, but I couldn't get the pain out completely. Looking back, what I remember was that I had recently switched from running on grass and gravel (soft terrain) to asphalt. Of course, I was running with my [Vibram Five Fingers](#) then. Not quite barefoot yet.



Shin splints are caused by cumulative stress injury, as opposed to acute injury. When you first start running, your muscles get strong fairly quickly, but the ligaments, tendons, bones, etc., take a while, creating an imbalance. The harder the surface you run on, the higher the differential in the amount of impact stress amongst these and you end up with shin splints. If you are not careful, shin splints can result

in some nasty injuries (like stress fractures) and treating them immediately after you feel them is imperative. R.I.C.E. and switching to soft terrain (like grass) definitely helps tremendously in treating shin splints. What I did find though, were three other home remedies that worked wonders for me.

The first of the three is **heel walking**. Walk bare feet on your heels for 10 to 20 steps at a time. It's kinda weird at first, but then you realize you are actively stretching the muscles around your shin to help with the blood flow. This is still such a favorite warm up for me, even though I haven't gotten shin splints since.

The second involves a **golf ball**. One thing I noticed when I had shin splints was that the bottom of my feet (around the arch) was really sore. I dropped a golf ball on a yoga mat (for some friction) and then pressed my bare foot on a golf ball (while standing) and rolled it back and forth for 20 to 30 seconds at a time. This was the most amazing sensation ever! The golf ball really helped in working the scar tissues on the muscle band that runs from your knees, through your shins and down under your feet.

The finale was a simple stretch on a **foam roller**. Kneel down with a straight back on a yoga mat and place the top of your toes on a foam roller. Breathe and hold for 20 seconds. Now move the foam roller closer to you so that the top of the mid-foot is on the foam. Just 20 seconds later, move the foam closer still so that the foam is directly on top of the ankles.

With these three simple remedies, it took me just a week to get back on my feet again with no pain on my shins.



Aches and Pains: Inner Ankle Pain

Also known as Posterior Tibial Tendonitis, I had this injury twice in the first six months of running and then never again. The first time around was right after a 12-mile run when I really should have only been running 6 to 8 miles. The second time was a week after I ran the [San Francisco Half Marathon](#). After the race day, I took a few days off from running. A week later, I was on the elliptical for about an hour and when I got off, felt a sharp pain in the inside of my ankle. I was grimacing and limping a little too each time my foot came down and made contact to the ground. It felt like a nerve was getting pinched.

What worked for me was R.I.C.E. (again), eating oranges three times a day for the extra Vitamin C, some massaging and really just a ton of rest. This tendonitis is typically caused by overuse and is a form of repetitive injury.

Aches and Pains: Outer Ankle Pain

The third form of tendonitis to hit me, this one also goes by the name of Peroneal Tendonitis. However, I was able to spot the exact reasons why I ended up with the outer ankle pain. It was to do with running on uneven terrains. The first time was on a trail and the second time was on the beach, running next to the waves. Both runs had the same problem, a left to right **camber**. My feet were coming down at an angle causing a gentle, but prolonged twist of the ankle. After 20 minutes of running, my ankles were just sore from the awkward angle.



When running on uneven terrains, the trick, as I would finally learn, is to run zig zag (like a crab) so the ankles are not subject to repetitive stress. It's a simple, but effective technique that works on long runs at the beach.

Aches and Pains: Top of the Foot Pain

This by far, was the scariest injury I've had in all of my running (so far). Scary in the sense of not immediately knowing what was causing the pain. Apparently 'top of the foot pain' is also the official way to Google this. With all of my other injuries, I had some gut feel that it was the muscles or the tendons and somehow could brute-force my way through healing them. But this one was different. And it was caused by the accidental 12-mile run that I described above. I felt an aching pain along my pinky toe and learned that there are these little bones on your feet called [metatarsals](#).



Stress fractures amongst these bones are considered to be common in runners, especially the fifth metatarsal. You see, when you run barefoot, your feet naturally does something called pronation. The outside part of your feet land first, your toes splay to grab the ground and your ankle gently rolls inside. This is normal body mechanics and nature's built-in shock absorption mechanism. However, when you are starting out, the fifth metatarsal (your pinky toe) tends to fracture because it's not strong enough. Sad part of this injury is that

it took me a long time to even figure out that “top of the foot pain” was how this is described. I was kinda scared that the pain was caused by a stress fracture, but after a few days of rest and cross training, it turned out to be minor tendonitis. Vitamin C to the rescue again!

Aches and Pains: IT Band Syndrome

When I mentioned that I'm a guinea pig for an elaborate experiment, I wasn't kidding. Every time I walk into my chiropractor's office, I get the 'what now?' look on her face! After 11 months of running, I was out on a 16-mile run and with just 6 miles to go, I had a sharp pain on the outside of my left knee. Landing was okay, but when the knee came up, it felt "loose" with a very sharp, pronounced pain. Even walking was quite difficult and I limped home wondering what new thing I was going to learn about my body.



Iliotibial Band Syndrome (ITBS) is a mouthful, but turns out to be a leading cause of knee pain in runners. For me, I could only attribute this to my chop-stepping downhill run on [Rancho PG&E trail](#) when I was going way too fast (and enjoying every step of it). As I would find out later, there are better and more efficient techniques for running downhill. The IT band is a large sheath of tissue that runs along the outside of your thighs and ends up right around your knee. After much reading and researching, I came to realize that there are two kinds of

knee pains. First one is under the knee cap, also known as [Patellofemoral Pain Syndrome](#). The second one is caused by the IT band. Once I could isolate the pain point, I was that much closer to figuring out how to fix it.

After simply two sessions of Graston Technique, muscle stimulation (putting electrodes along the IT band, shins and running different wave patterns), ultra sound and active release massages, my knee pain was gone! The key take away for me was this: I had focused so much in the first few months on lower limb strengthening that there was an imbalance in the upper legs (quads and thighs). I have since incorporated one-legged squats and lunges as a daily routine. An important tip for men: don't stick your wallets in your back pockets when you are at the office or driving! Your every day posture is so critical and most of us don't pay any attention to it until something breaks. What I did find helpful during this injury was wearing the [Pro-Tec IT band compression wrap](#) for additional support to my IT band.

Six Months Later



Life is short, running makes it seem longer

- Baron Hansen

At the end of six months, I was running 6 to 8 mile stretches (mostly barefoot), twice a week, comfortably. I was just bordering on having to carry water and food with me during my runs. After trying out different running gear, I settled in on the [Amphipod RunLite](#) [AirStretch](#) hydration belt. It comes with 2x 10oz snap-in bottles, a

large integrated pack with outer pocket and key fob. You can easily move the bottles to the front or back depending on your comfort. I've added two additional snap-pods to carry food items as well. I was starting to feel comfortable in getting out on an hour long run and not having to worry too much about injuries. With an overconfident, cocky attitude, I registered for the [San Francisco Half Marathon](#). Twelve miles was beyond my reach then, but I figured I had to try. I typically don't train for specific events and this one was no different. My thoughts were, if I could run 13.1 miles as a "normal" run, then race day wouldn't be any different. This race was a significant milestone for me since I planned to run the half marathon barefoot.

San Francisco Half Marathon

You're better than you think you are and you can do more than you think you can!

- Ken Chlouber at Leadville

My wife and kids decided to join me for my adventure and we hung out at my buddy's place for the night. We got to San Francisco in the afternoon and went to the exposition to pick up the bib and race package. The kids had a such great time at the exposition and psyched by all the runners they saw that they decided to register for the munchkin run the next day! When we got back home, the fog rolling over the Twin Peaks was mesmerizing. I don't think I got much sleep at night, because my wave started at 5:55am and I had to catch a cab to get to the other side of the city.



I was wide awake at 4am, got up and made myself some [Chia Fresca](#). I go through a lot of chia these days and it's a great way to hydrate before a run. And the sweet lime is a nice waker upper too. I then

caught a cab and got there just in time for my wave to start. The energy level in Embarcadero was incredible. About 7,000 were running the half marathon. As I made my way to the starting line, there were waves of people running and I realized that I simply needed to join them. Quite naive of me to think there was going to be a count down of sorts. The race had begun! The morning fog rolling over the Golden Gate bridge and the lights on the Bay bridge made the entire experience surreal.

I ran with my [Luna Sandals](#) for the first 3 or 4 miles, because I wasn't sure about the terrain. Once I started getting into the groove of things, I took them off and went barefoot instead. There's something to be said for running across the Golden Gate bridge barefoot with a huge grin thinking, dang it's good to be alive and running. We ran across the bridge, made a U-turn and headed back towards the Golden Gate park. When I run by myself, I usually take a walking break every 20 minutes or so to check on my body, hydrate, eat, etc. However, in the race, my adrenaline was so high that I stopped just once to take my sandals off. I crossed the finishing line at **1:52 minutes** putting me in the top 10%! The best part of race? The sign that my kids made for me that read: "Your 'shoes' look great on you Dad!"

This race was instrumental in making me realize the importance of writing down my experience. You see, as I was running, chatting and having a great time during the race, I saw countless runners struggling, in pain and grimacing. Having spent countless hours studying, experimenting with running economies and proper technique, I saw runners that were running upright or looking down or doing things that were going to make them hurt in the long run.

Onward and Upward

You don't stop running because you get old, you get old because you stop running

- Jack Kirk, running his last race when he was 96

Just one year after I began my adventure, I've ran six half marathons and have been steadily increasing my distances. My injuries either seemed to have taken a backstage or I'm getting better at knowing how to cure them before they get worse. I will be running the [Big Basin 50K](#), my first ultra marathon, exactly 18 months after I began



this journey. I'm still an enthusiastic beginner in many ways, but that makes every step, every run exciting because I'm always learning something new about my body and running. I can hardly let a week go by before endorphin withdrawal and the smell of fresh air force me out for a run. My [race calendar](#) now has at least one race every month of varying distances. Races have become a way of getting me out to try new trails, meeting other runners and exploring the

outdoors. Ultimately though, I hope I can run for a long time and sometimes I lament that I didn't discover this passion early enough in my life. But if the [Dipsea Demon](#) can run until he's 96 and [Fauja Singh](#) can finish a marathon when he's 101, we all have hope!

This book has taken me over six months to research, experiment, write and I hope to have shared my enthusiasm for running with you. I cannot thank my family enough for all of their support to help me get to the end of this book. If reading this book simply makes you get up, get out and try running, I've achieved my purpose.

Hope to see you out on the trails!

kowsik@freeradical.me

California, 2013

Resources



I would rather exercise than read a newspaper

- Kim Alexis

As much as I've spent inordinate number of hours experimenting with my body, I also read quite a few books¹¹, web sites and blogs, tried implementing various advice, watched YouTube videos to finally

¹¹ Photo courtesy of [twechy](#)

figure out what worked for me and what didn't. The collection of these resources below was tremendously helpful for me and is listed here to save you some time in your learning as you embark on your own running adventure. Ultimately you need to listen to your own body to figure out what works for you. Every body is unique and while general principles and techniques are universally applicable, the best way to get better is to experiment, have fun and chart your own path to running.

Websites

After three months of running, I stumbled across [Active](#) to learn about local races around where I live. Active has a number of training guides, simple workouts and exercises to get you moving.

The mother of all running sites, [Runner's World](#) is recognized as a worldwide authority on running information and to advise and motivate runners of all ages and abilities. The [forums](#) on the site are useful to socialize with other runners and get advice on various running topics.

Ken Bob Saxton's site on barefoot running (since 1997), [Running Barefoot](#) is an excellent resource for the why's, the what's and the how's of barefoot running.

Stan Jensen's [Run 100's](#) is a web site that focuses on various aspects of ultra running including schedules of the 110 North American 100-milers. This site also includes references to coaching and camps and is a great resource for learning more about ultra running.

[I Run Far](#) is a great resource for trail running and this site provides a mix of timely news, race reports and gear reviews. Read past the

“ultra” in these articles. There is many wisdom here even for runners that are just starting out.

Kevin Sayer’s [UltRunR](#) is an eclectic collection of various articles on ultra running that includes hydration, race strategy, clothing and training. Again, don’t be scared by the word “ultra” since there are plenty of basic advice here that can be applied to everyday running distances. The humor section is also a fun read.

Race Registration

I live in California and there are many races throughout the year, everything from 5K to ultra marathons. Many of the popular races sell out months in advance and the prices also increase as you approach race day. There are two sites that are quite handy since you can see all the races in one go as well as get discounted prices.

[Ultra Signup](#) lists major running races across the USA. Don’t let the name of the site fool you. You can filter the races by region as well as by distance starting at 5K. Book in advance and you also get an early bird discount.

[Running in the USA](#) is another site that lists many of the major (and minor) running races across the country. You can filter by state, month, distance and there’s even a filter on a map so you can see all the races within 25 miles of where you live.

Along with the above websites, I use the following to plan my races for the year:

- [Brazen Racing](#)
- [Coastal Trail Runs](#)

- [Enviro-Sports](#)
- [Inside Trail Racing](#)
- [Zombie Running Event Calendar](#)

Finally, for ultra marathons across the globe, the [Ultramarathon Running Resource](#) is an excellent website for listing many races across the world. At this point for, this is idle day dreaming and wishful thinking for me. Maybe someday, I'll get around to running globally.

Gear

I'm a very gear-averse runner, but I do find myself putting the gear below to frequent and good use. I used my very first foam roller so much that it's so bent out of shape and not much of a roller anymore!

[Amphipod Runlite Airstretch](#) is my hydration pack of choice. It comes with 2x 10oz snap-in bottles, a large integrated pack with outer pocket and key fob. You can easily move the bottles to the front or back depending on your comfort. I've added two additional snap-pods to carry food items as well.



I use [Ankle Weights](#) in many of the drills and workouts, especially in the advanced progressions. They are very effective in making your lower limbs work harder, thereby strengthening them in the process. I love how light your legs feel afterwards.



The [Balance Board](#) brings the uneven terrain (think trail running) right into your living room. This board is great for proprioception as well as strengthening your ankles and feet. Many of the advanced progressions in the proprioception exercises can be done on this board for added difficulty.



I installed a [Doorway Pull-up Bar](#) in my house long time ago, when I was an avid rock climber. I've always been a huge fan of chin-ups and reminisce the days when I could do chin-ups with one my kids strapped to me on a Baby Bjorn carrier! The ab crunches is simply one of many exercises you can do with the pull-up bar.



I cannot say enough good things about the [Exercise Wheel](#). It's one wheel to rule your core! I love the wheel so much that this is the only gear that I carry with me when I travel. The fact that one simple movement works your core, abs, forearms and shoulders makes this one of my all time favorites.



Every runner that I know has a [Foam Roller](#) tucked away somewhere in their house. The most versatile of all gear, the Foam Roller can be used for strengthening, proprioception and therapy for sore calves, IT band and quads. It can also be used to elevate your legs when you are doing exercises like Plank and Bridge.



My chiropractor got me my first [Thera-Band](#) when I busted my shoulder on a roller-blading injury. Along with the [Door Anchor](#), I used the band to strengthen my shoulders and arms and they proved to be very effective. The resistance provided by the bands have many uses and I've put it to effective use to strengthen my ankles.



[Yoga Ball](#) is similar to the Foam Roller and is an amazingly simple and effective tool for rebuilding your core. You can also use the Yoga Ball for elevating your legs for the Plank and Bridge. These balls go for \$20 to \$30 in most sports stores and my chiropractor even recommended that I use them to sit while working on computers!

