



# Expert Strategies

## HIP PAIN



# About the Author



**My name is Cameron Garber. I'm a doctor of physical therapy, a husband, a father to four energetic boys and an avid proponent of a healthy lifestyle.**

**As a physical therapist I help people every day to know, understand and treat their body better. That's why we're called Body Smart. I use an intuitive and individualized approach to help my people discover, learn about and quickly find the solution to their problem.**

Before opening Body Smart I was a leading therapist of the outpatient stroke team at the University of Utah. I became frustrated with the current health care model's willingness to spend millions on treating preventable diseases. This led me to leave my position and begin working on true prevention health care. The emphasis of my practice is now lifelong wellness. I have become an expert, national speaker and educator regarding metabolism, weight loss and restoring people not only to full function, but to a lifetime of fitness.

My goal is to leave every patient with a long term plan for health improvement. Body Smart is more than a name, it's my mission! I aim to help everyone understand their problem, how it affects their body and how to resolve it permanently!

**Introduction-** Let me let you in on a little secret...it's ALL in the HIPS. What do I mean by that?

Many of the common running injuries, from IT band syndrome to Achilles tendinopathy can be traced back to problems at the hip. The problem with many treatments is that they rely solely on addressing the symptoms rather than zeroing in on the root cause. Thus, while a person may find relief from symptoms for a time, they are still at increased risk of injury reoccurring because the underlying problem hasn't been solved.

In this guide, we'll discuss the 3 most common hip problems and how you can fix them, helping you avoid future injuries and keep doing what you love!

Compiled from years of experience and education, this guide is designed to give you some tools to deal with hip pain and problems now and stay on the road. It is a resource designed for women and men who desire to stay active, healthy and want to avoid unnecessary surgeries, pain medications and time spent away from doing the things they love. It is for those who value their health and independence enough to take a **simple step** towards freedom from suffering and learning more about what can be done to improve their health. I look forward to sharing this information with you to help you start on the path towards health and wellness.



## WHERE IT STARTS

Our bodies are professional cheating machines – they are excellent at finding ways to compensate when things aren't working as they should, so we can keep moving and going about our days. The problem with cheating though, is that there's always a cost. When one body part isn't doing its job, other body parts have to pick up the slack. Thus, while we might be able to keep running, or hiking, or competing as a result of the compensation, the cost is that we're much more likely to end up with an injury.

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Before moving on to the 3 most common hip problems, let's have a quick discussion about the CORE. What comes to mind when you think of the core? For most people, it's the abs – or, more specifically, the rectus abdominis muscle – what we commonly think of as the “six-pack.” The truth is, this is only a *part* of the core. Structurally, the core goes from the ischial tuberosities (your “sit bones”), all the way up to the diaphragm. Thus, the “core” includes the muscles about the hips and pelvis.

The main purpose of the core is to provide dynamic stabilization and to act as a load transfer system, helping to control, and if needed, dissipate forces throughout our body so we can stay upright and moving. When we start looking at running, the hips and the pelvis are especially important as stabilizers. Running is essentially a series of single-leg jumps, so sufficient strength, endurance, and control are required in the hips to accept and control the force that comes with each impact. When those factors aren't there, we see problems up and down the chain – including low back pain, knee pain, ankle pain.

## 3 Common Problems

Anything that takes you away from staying active and doing what you love is a big problem! Hip pain is no exception. Having a literal ‘pain in the butt’ can really limit your function, performance, and enjoyment.

If you’re reading this book, you, or someone you care about, likely has some kind of pain or problem in the hip. This pain is obviously starting to cause some distress, or you’d probably be doing something else instead. Hip pain can be frustrating and often worrisome because of the implications of what the pain can mean for your life.

Worry no more! This simple guide is here to help give you some natural solutions to understanding your pain, getting some relief, and knowing what steps you can take today to start getting rid of the fear, frustration and worry about your hip pain.

Whenever we talk hips, we first have to understand that health for any athlete is all about whether or not the tissues (tissues = joints surfaces, tendons, ligaments and bone) can safely bear the load placed on them. All injuries stem from too much load in one of those tissues in some way. Indeed, deficits in any of the 3 following areas change the way our bodies handle load, leading to increased stress on the system during running.

Overloading a specific tissue is a training error which leads to an injury. Helping our body be prepared to manage the load properly is key. Sometimes talking physics and load tolerances of tissues can get a little deep into science. I’m a bit of a nerd and love that stuff, but not everyone feels the same.

To simplify things a bit I’ll share 3 main areas in which our body can feel the effects of too much load on the system. These are problems in mobility, strength, or stability.

Let’s explain a bit about how each of these lead to different load problems for you. We’ll discuss them in a particular order because it follows the typical order we address these issues with our patients in the clinic every day.

# Mobility

Mobility, at its simplest definition, is freedom of movement. Our bodies are built to have that freedom within certain ranges. When movement begins to occur short of *or* beyond that range, this sets the stage for dysfunction and increases the risk of injury.

It's common to overuse/overload muscles around the hips and have them get feeling tight. If our muscles are working in a shortened range then we aren't using the full range and are putting too much load through only a portion of the range. We aren't sharing the load. Our body needs to remember those sandbox skills and share!

Conversely, if we have too much mobility (hypermobility), we can surpass the safe range for our joints and put undue stress on joint surfaces due to this excessive mobility. This is a condition we see less frequently, but it occasionally surfaces, so it's good to screen for.



To paint a quick picture of what can happen with decreased mobility in the hips, let's use tight hip flexors as a case example. In fact, one of the most common areas we see tightness is *in* the hip flexors. This can lead to several different problems, causing dysfunction in and around the hips, and even all the way down to the feet.

Because of their attachment to the spine and pelvis, two main things happen when the hip flexors are tight. First, the pelvis gets tipped forward. This not only changes the line of pull of the muscles that attach here, decreasing their ability to generate force most effectively, but it can lead to some muscles being overstretched, which also decreases their ability to generate sufficient force.

Second, the lumbar spine (your lower back) is pulled into a greater curvature. This changes the way the vertebrae bear load, and also affects the surrounding musculature, increasing the fatigue in these muscles and decreasing their ability to do their job in maintaining stability and postural control during dynamic movement. Over time, this can lead to the development of low back pain.

Another common occurrence seen in hip flexor tightness is associated weakness in the glutes. Because the hip can't move through its full range of motion, the glute muscles, which function in helping to extend the hip, aren't able to generate



maximal force. Over time, as they aren't being used as intended, strength, endurance, and control of these muscles decrease. Then, not only are they unable to generate maximal force, they are also unable to fully control the forces that are transmitted through the hips. When the hips can't handle the load transfer, we see the development of conditions like

trochanteric bursitis, gluteal or iliopsoas tendinopathy, or IT band syndrome - not to mention problems down the line, such as patellar and Achilles tendonitis or plantar fasciitis.

Now, in *runners* there are two main types of tightness and it is critical to understand the difference between the two. These two types are true tissue length tightness, and muscle soreness-related tightness.

The first type of tightness comes from having decreased length of tissues like tendons, ligaments, or muscles. This type is much more rare and usually is from chronic or long term causes. These conditions are something which typically require a team of health professionals working together to decide the best way to restore healthy mobility.

The second type of tightness is much more common and is experienced by pretty much everyone at some point in time - even office workers and couch potatoes!

This is where muscles get a bit sore, start *feeling* stiff and we have a hard time moving freely because of the tenderness.

Sore, knotted or tight muscles typically come in response to training load changes, or from sudden minor injuries. Trauma to a muscle or ligament can make the tissue feel tight and can even limit the range you can move it in due to soreness.

Most people will be happy to give you lots of advice about what they do for tight muscles. Unfortunately, most people will give you advice that isn't that terribly helpful. For tight and sore muscles here is a list of things to avoid doing. Some because they simply don't work, and some because they are potentially harmful. Avoid these "Recovery Go-To's"

- **Stretching** - It doesn't actually change muscle, tendon, or ligament length and can be harmful to runners
- Excessive or heavy **foam rolling** - It shouldn't hurt! It just mashes the tissue and keeps it angry
- Using a **lacrosse ball** or other device to rub, roll, or **pressure point** - Again, it shouldn't hurt!

I know some of that list may be hard to hear because they're things that you've either done a ton of, or have felt really guilty for not doing. But the truth of the matter is, tissue injury is a load problem. Adding additional load through stretching, smashing or grinding the tissue in a very blunt-force trauma way actually tends to keep the tissues irritated. It often feels good in the moment, but these techniques have shown no sign of helping recovery or improving range of motion long-term.



You might now be thinking, 'I've done those things for years! So what should I do then?'

We recommend strengthening, isometric holds, and movement to end range, *not* stretching, to solve this. Activity-based movement to end range is great. It improves your brain/muscle connection and helps you loosen the tightness and achieve full pain-free movement.

Activities like yoga and Pilates can be helpful and are a better way to feel stretched out. They focus on slow, controlled movement to end range, where you use your muscles in those positions. This is a big difference from just a static stretch and hold which can be harmful to tissues.

As we restore and improve mobility, we improve alignment and share the load better. It is also a big prerequisite for our next step which is working on stability. **If you don't have strength throughout the full range yet**, you should just hang out here for a while before progressing to the next phase.

## Strength

Strength is vital to staying healthy and performing at your best. Weakness leads to changes in the way we move and alignment of the foot and knee. We then tend to overload tissues in poor alignment leading to pain and other problems.



Many people believe that a high enough volume of running or walking will keep the muscles strong. The idea is that they can avoid strength training to dedicate more time to getting in more of those hard earned miles.

There seems to be a few big problems with avoiding strength training though. One of the biggest problems is simply a matter of fatigue. If someone is running or hiking at 70-80% of their strength capacity with every step, they definitely won't be able to keep it up for a long time.



Imagine if you were mowing the lawn. If pushing the lawn mower took 75% of your strength to keep moving you probably wouldn't make it very far. Think of doing any task at that level for an extended period. That's exhausting! If you do push through the fatigue the likelihood is that you are doing this through getting some help from other muscles.

Using the wrong muscles for an activity means that you are changing the way the load is being placed on your tendons, ligaments, joints and bones. Weakness, or simply insufficient strength for the intensity of the activities we're doing leads to poor movement form and alignment. When alignment issues happen with high velocity, high impact, and/or highly repetitive movements...you guessed it! We get injuries. (Boooooo!)

Now, imagine that you get your muscles a bit stronger. Mowing the lawn now only takes 40% of your strength. At that rate you can go significantly longer and with a lot less fatigue or substituting movements to get the job done. With less fatigue you can maintain normal movements and avoid injury.

One of the most common areas we see strength deficits is in the glutes. The glutes comprise three separate muscles: the gluteus maximus (what people usually think of as the "butt muscle"), the gluteus medius, and the gluteus minimus. The gluteus maximum helps to extend the hip, providing greater force for push-off when walking or running. The other two muscles, glut med and min, are incredibly important for stabilizing the pelvis during both walking and running. When these are weak, the pelvis is unable to maintain its normal, more neutral position, putting more stress on the muscles and their associated tendons that attach to the pelvis. Furthermore, weakness here often leads to the knee dropping more inwards toward midline during running, placing increased stress on the knee joints and associated structures and increasing injury risk. Effects can transfer even further down the chain to the foot and ankle, where we see overpronation in the foot, flattening of the foot's arch, and increased stress on the plantar fascia. Making sure the glutes are strong goes a long way towards making sure running form is appropriate and efficient.

# Stability

Stability is kind of the high-level blend of strength and mobility. In order to really move in a healthy way, our bodies need to have the strength to work under dynamic and high-force loads throughout their entire range of motion. To run without overloading our body is actually a pretty advanced skill we often take for granted...until we get injured.

Balancing high speed repetitive strength throughout a fully mobile body moving at high speed over varying terrain is tricky. Forces are huge in the hips and other joints during running. Often we are required to bear many times our body weight in force as we run. Bearing high loads at extremes of range can be a lot of stress on the body. The key to counteracting this form of overload is increasing dynamic stability.



Increasing dynamic stability requires you to do very specific high-velocity, high-power movements. The prerequisite for these movements is having sufficient strength and mobility. If you lack these, wait before doing any momentum-based exercises with high dynamic loads.

Once you are ready though, doing certain plyometric or explosive exercises in a controlled environment can really help you build up your load tolerance. This is often the toughest step to take because we are often feeling pretty good at this point.

By this point the pain is gone and we've gotten back to a fair amount of activity. It's easy to think all is well and to get back at it. Not taking the time to build up our dynamic load can be one of the biggest mistakes we make when returning to running or increasing our training volume back up after backing off for an injury.

Not sure if you are ready for dynamic loading exercises? This would be a great time to check in with a physical therapist to ensure that your mobility and

strength have improved to a level where you can safely begin increasing your dynamic load tolerance. With that peace of mind you'll be ready to crush your goals.

Another quick caveat with stability. Even with proper strength and mobility, we also need to have good motor control to make sure we're moving in the best and safest way. We'll define motor control as the ability to coordinate muscle and joint movements in the proper timing and sequencing to allow for fluid and efficient dynamic movement. When we have good control there is less stress on our tissues and better load management and displacement, i.e., less injury risk. Often, when we get injured, we begin compensating in other body areas to keep moving; like I said, our bodies are professional cheating machines. This means that improper motor patterns develop. Think of it like the software on a computer getting corrupted; the program may still run, but there may be glitches and occasional software crashes. Without addressing those improper movement patterns, even full strength and mobility won't be enough to prevent injury.

Taking your strengthening and mobility work to the next level with dynamic strengthening tasks throughout the entire range of motion along with implementing motor control training is the final step in creating sufficient stability. Stability work will help bulletproof people like you and help you perform your best. This resiliency comes because you will be prepared for the load and all the road has to throw at you!

## Conclusion

So there it is! My best tips for naturally resolving your hip pain. Expert insight into why you might be hurting and the 3 main areas where we see common solutions which have helped hundreds of my patients get relief. I know you likely still have some questions about your pain and are probably still somewhat skeptical if you can get any relief. Hopefully you have a better understanding of what you can do and how to decide if you should seek more help.

My hope is that sharing this guide with you is the beginning of a long relationship of sharing our expert advice to help you improve your health, avoid pain, immobility and surgery. My goal is to help you become Body Smart!



You can always contact me directly here:

**bodysmartutah@gmail.com**

**801-479-4471**

Dedicated to your health,

**Cameron Garber**

**Leading Doctor of Physical Therapy**

**Health Advice Disclaimer**

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