

## Chapter 5

**HIP PAIN**

I am beginning with hips because they are the power source of your body and often the main culprit when it comes to pain no matter where it occurs in your body. Your hips are where most of your power comes from so you can perform physical tasks like squatting, climbing stairs, or pushing open a heavy door. Your hips significantly impact the function of your knees below AND your back and shoulders above. Poor hip function can even lead to the need for disposable underwear!

This is the most important thing for you to grasp about human movement and function.

EVERYTHING IS CONNECTED TO EVERYTHING ELSE.

*Diana was sincere when she stated she wanted new hips for her birthday. She did a great deal of physical work with her husband on their land and pain in her hips was quite limiting. She was tired of the pain and not being able to do what needed to be done. Walking was the worst. To make matters worse, her right shoulder had also started bothering her again. This shoulder had been injured from lifting weights a year ago but had healed.*

*Here is what she wrote to me. "It would be a relief not to calculate the cost of every movement. Can I walk that far? If I do this exercise today, will I be able to do the things I've planned tomorrow? Will there be a place for me to sit down? If I'm traveling, what do I do if my hips flare up? Will I wake up in pain tonight? Right now, I say no to activities that I wish I could say yes to. My husband wants me to consult an orthopedist if I cannot find a solution. He tells me I walk like an 80 year old woman." (Diana was only 54 at the time)*

*Diana had xrays and was told there was only slight arthritis and no real problems. She was advised to take prednisone (a med with horrific side effects) and see an orthopedist. She refused both and contacted me. Here is an interesting thing about Diana's story. She had an initial pain consultation with me two years prior and was much improved by the work done, able to resume all normal activities; personal trainer, etc., but she did what most people do...*

The following information will give you a basic understanding of the anatomy of the hips and how they are designed to function. Part 3 shares techniques and methods I have seen effectively resolve hip pain.

Your hips are made up of:

- Bones/Joints
- Muscles/Tendons
- Ligaments
- Nerve Supply
- Blood Supply
- Fascia

The bones of your hip include your thigh bone (femur) and 3 pelvic bones (ilium, pubis, ischium). You have more than one joint involved in hip function, yet the "true" hip joint is the femoroacetabular joint where the top of your thigh bone (femoral head) sits in the hip socket of the ilium (acetabulum).

Another joint intimately involved in hip function is the sacroiliac joint. When you stand with your hands

on your hips, your thumbs will usually be near these joints. Think of the dimples you see on the backside of a baby. I have seen impaired function here lead to issues in lots of places, like hips, back, knees, shoulders, and neck.

There are over two dozen muscles that provide movement and stability to your hips. Tendons are how your muscles attach to your bones. They are flexible, part of the muscle, yet more fibrous, providing more strength. Some muscles go from your hips past your knees, which is why it is inaccurate when someone is told their knee pain has nothing to do with their hips or vice versa. They very much affect each other.

There are LOTS of hip muscles.

There are three superficial gluteal muscles: maximus, medius, and minimus, and several deep gluteal muscles: quadratus femoris, piriformis, gemellus superior, gemellus inferior, and obturator internus. The obturator internus is fascially connected to the levator ani muscle in your pelvic floor. This connection is the reason exercising your hips the right way can often resolve incontinence. If you already have, or want to prevent, this issue, there is much you can do about it. I teach a class called Exercise Away Urinary Incontinence Without Kegels for this very reason. Find it in Resources.

Other hip muscles are adductor brevis, longus, and magnus, pectineus, gracilis, iliacus, and psoas major.

Your gluteus maximus is essentially your power source as it is the largest and heaviest muscle of the body. Other muscles that impact hip function are quadratus lumborum (from hip to lower spine), and abdominal muscles (rectus abdominus, external/internal oblique, and transverse abdominus). The rectus femoris and sartorius can cause movement in the hip joint as well. The hamstring muscles assist with hip extension and many only see hamstrings as knee flexors (bend the knee), yet this is not entirely accurate. They also help to extend the knee when walking and running.

It is now clear to you why isolating a muscle to "fix" hip pain is not adequate, and just stretching your hamstrings will not restore the complex function of your hips. You also have a muscle called tensor fascia latae (TFL) on the outside of your hip that connects to the iliotibial band (ITB) as does your maximus, vastus lateralis and rectus femoris. Many people have been told they have a tight IT band (essentially fascia) and advised to stretch it. My take is "*why is it tight?*" Is it attempting to stabilize an unstable area? Is there a body part not doing its job because of weakness and the IT band is being stressed abnormally? Simply stretching the IT band will not restore optimal function. You must assess your body as a whole.

This is also why I teach how to heal and repair the fascial system. Read more about that in Part 3.

Ligaments provide stability to your joints and attach bone to bone. They are tough and fibrous, with limited flexibility. Once stretched, they tend to become lax, which affects stability and, if stretched far enough, they can snap. A sprain is an injured ligament. The three main hip ligaments are Iliofemoral, Pubofemoral, and Ischiofemoral.

You also have a labrum, which is a ring of cartilage that surrounds the socket of the hip joint, helping to provide stability. The labrum is often injured or torn like the meniscus of the knee or the labrum of the shoulder.

Your hip joint has three primary nerves: sciatic, femoral, and obturator. These same nerves innervate your knee, which explains why pain can be referred to the knee from the hip and vice versa. Your knee is

a simple hinge joint, stuck between your hip and your ankle, with no place to go. Most of the time, if you have knee pain, it is because your hip (or ankle) is not performing properly.

Pain deep in the back of your hip (or down your leg) can be due to your piriformis muscle putting pressure on your sciatic nerve. I have found this is often due to a sacral torsion which creates an abnormal pull on the piriformis muscle. When you pull abnormally on a muscle, it pulls back, like a low-level tug of war. Remember Joan's story?

The medial and lateral circumflex femoral arteries are the major blood supply to the hip joint. Remember from Part 1 how blood supply to the lumbar spine is related to back pain? I am mentioning it here because the hips and back are intimately related, and impaired circulation to the psoas and quadratus lumborum muscles has been associated with deep hip pain.

### **How Your Hips Really Work**

Ok, would you like to know what Diana did that most people do?

*Because she felt pretty good after her initial session Diana neglected to follow up to learn more. She thought she was ok at this point; yet, after 1 ½ years of doing what she had been taught in her one and only session, her hips began to be a problem again. She decided if one session was able to help her for 1 ½ years, she would commit to the program and see if she could have “new hips” by her 55<sup>th</sup> birthday which was just seven weeks away. Guess what happened?*

*Just two weeks in, this was Diana's report. “Feels improvements: able to stand longer, in/out of car easier, up/down from a chair easier, able to walk ~3/4 mile with no problems.” By her birthday this was her report. “Able to walk and shop unlimited by hip pain now. Most of the time feels pretty good. Occasionally feels a little tweak upon rising from a chair which goes away quickly. Aside from this, nothing else is an issue.” By the conclusion of the 12-session program, Diana was able to do everything physically needed on her land and in her life without pain or limitations.*

Your hips are the power source of your body. They provide power to your trunk, shoulders, low back, and knees. Your hips have lots of motion in all three planes (only your shoulder has more) and they are extremely powerful at controlling (decelerating) motion with movement. When you walk, run, swing a club/bat/racket, climb, push, or pull, your hips are your power source.

Have you been sitting for hours each day? Does your job or profession require you to sit at a desk or behind the wheel of a vehicle? Odds are your power source has weakened unless you have done something to actively prevent it.

Restoring hip function will improve your golf swing, your running, and pretty much every task you perform. I have had people tell me they need to strengthen their arms because they struggle to push open a heavy door. Their arms have little to do with it; it is their hips and core that need strengthening.

The most effective way to train your hips is in weight-bearing since sitting or lying down does not provide the stability necessary for proper function when standing and walking. Using machines in a gym, pushing your knees in and out with resistance while sitting is not a functional activity that provides any benefit in real life.

Think of the things you do throughout the day or would like to do and can't now because of pain. None of those activities requires you to sit and resist weights with your legs. They all require you to be able to

raise and lower your weight while on your feet.

Things like getting in and out of a car, going up and down stairs, squatting to get something out from under the sink or off the floor all require power in your hips if you want to do them free of pain. Virtually ALL the useful things you do throughout the day require you to be on your feet including walking from the parking lot into the store or to your office. That is why you must train your body ON YOUR FEET to restore optimal function.

Train to strengthen your butt, hip flexors, and abs AND ensure your hips function fully in all 3 planes of motion. The Move Without Pain Program (described in detail in Part 3) teaches how to do this effectively and safely, providing information only taught to professionals until now. Free online video class provided in Resources.

Prolonged sitting will shorten your stride when walking as well as make you feel stiff when standing up or getting out of a car. This stiffness is generally due to tight hip flexors and why a hip stretch in all three planes is so essential. The front of your hips are designed to stabilize you. You see how people tend to bend forward as they age. A major reason for this is weak, shortened hip flexors and abs.

Remember, decreased hip function can also affect pelvic floor function leading to incontinence issues. Total hip replacements or hip fractures are notorious for affecting hip function. I often inspire people to comply with their homework by informing them that impaired hip function can lead to the need for disposable underwear in their future. This usually gets their attention and radically increases compliance with their homework!

I consulted with a woman some time ago who was told she needed a total hip replacement. She learned the MELT Method, restored 3 plane function through a professional trained by the Gray Institute, and sought out a manually skilled PT that I recommended in her area. She was able to resolve her hip pain and restore her function, including her life, without surgery. She was in her 70's. Please note, if you have bone on bone and severe pain, surgery may be your only option; however, this is not the case with everyone who experiences hip pain, and it was not the case with her.

Knowing the right things to do is a must!

### **Common Hip Pain Issues**

Hip replacements are done mostly when the joint develops severe damage. This joint is also where things like impingements and dysplasia occur. Femoroacetabular impingements (FAI) happen when there is abnormal contact between the head of the femur and the socket which leads to friction and development of a lesion in one of two places, the hip socket (PINCER) or the hip bone (CAM).

Dysplasia is when the acetabulum is too shallow to provide stability for the femoral head. Dysplasia is why pediatricians check newborns' hips; it's not something that develops over time. Mild cases may not be seen until teenage years or young adulthood. Developing solid stability and strength is critical for this issue.

Total Hip Replacement (THR) surgeries increased by 73% from 2000 to 2009. A 123% increase for patients ages 45 to 64 and 54% for ages 65 to 84 was seen.<sup>1</sup> THR is also rising for patients younger than 45. Why?

Hip osteoarthritis is a major source of pain. The population of over 60s has more than doubled in the

past 30 years in the US. The cost of osteoarthritis and its morbidities continues to increase exponentially.

Here are some statistics from the National Health and Nutrition Examination Survey (NHANES III)<sup>2</sup>:

- 14.3% of participants aged 60 years and older reported significant hip pain on most days over the past six weeks.
- Men reported hip pain less frequently than women.
- Among older US adults, 18.4% of those who had not participated in leisure-time physical activity during the previous month reported severe hip pain.
- 12.6% of those who did engage in physical activity reported hip pain.
- Self-reported hip pain has increased since NHANES I (1971-1975) reported.

Hip pain may also be underreported in some groups as elderly patients are more likely to suffer from hip pain but less likely to report it.

### Common Treatments for Hip Pain

Remember the OA and hip symptom studies from Part 1? I will not repeat that information here, but I will remind you that ensuring you have addressed all potential causes conservatively *before* surgery is generally an excellent idea.

Bulging discs are often blamed for hip pain (not just back pain) but studies consistently show many things seen (bulging/herniated discs, subluxations, scoliosis, osteoarthritis, pinched nerves, etc.) appear unrelated to whether someone experiences chronic pain.<sup>3-6</sup> We also covered surgeries and procedures like injections for the hip, including a recall of a hip replacement part that required additional surgeries. Here is a study that was not shown earlier regarding steroid injections and hips.

This study<sup>7</sup> included three groups of patients:

- 102 patients with hip OA treated by steroid injections (intervention group).
- 102 patients with hip OA who were not treated by steroid injections (hip control group to ensure time was not the reason for any effects seen)
- 44 patients who were treated by steroid injections in the shoulder (shoulder control group to ensure the effects seen were not just because a steroid injection occurred).

The study found ~23% of patients who received steroid injections in the hip showed *new osteonecrosis* compared with 9% of the hip control group and 5% in the shoulder control group.

Bone collapse was found in the head of the femur bone in ~16% of the patients in the intervention group compared with 4% in the hip control group and 2% in shoulder control group.

Rapid changes in bone were seen in the intervention group and this is what was concluded. *“Changes due to osteoarthritis, such as narrowing in the space between joints and the developments of bony proliferations, typically develop slowly over time. When reading follow-up radiographs of patients who had received a hip injection, we noticed changes had developed rapidly in some patients.”*

Remember the side effects of steroid injections? There are other injections performed, such as hyaluronic acid (HLA) injections. HLA is a naturally occurring substance inside joints, so it is touted to be safer and more effective. It is approved by the FDA and currently used for hip or knee joints affected by

OA; however, HLA usefulness is still being debated as some studies show good results; others don't.

The truth is pain meds and procedures like injections will NOT address the root cause of common issues like sitting too much, losing muscle strength, and imbalance in major muscle function.

Common sense would dictate inflammation is there for a reason, and medically managing the inflammation does not address weakness, instability, or any of the other possible reasons you have just learned. Common sense also dictates that decreasing inflammatory pain would put a person at a higher risk of further injury since pain is generally a warning sign that something is wrong. PLEASE seek professional guidance to ensure the REAL culprit for your pain is identified and addressed appropriately.

Let's recap important points about hip pain.

The function of your hips is mainly dependent on the strength of your gluteal muscles and ability of your hip flexors and abdominals to perform eccentric control (not falling backward when upright). Training your abs and butt the right way will enable your hips to become the stabilizing/power source they were designed to be.

Despite the massive number of hip surgeries and procedures performed regularly, it is possible to train your body to restore and protect healthy hip function. Full mobility and stability in all three planes *throughout your body* must be the goal for sturdy, reliable, and well-functioning hips.

*When you have pain or instability, it is vital to address your whole-body function and not just focus on the painful body part.*

EVERYTHING IS CONNECTED TO EVERYTHING ELSE.

## References Chapter 5: Hip Pain

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