

A Patient's Guide to **FOOT PAIN**

*Improved Treatment for Common Foot Conditions
with Active Release Treatment*

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GRAYCHIROPRACTIC



Improved Treatment For Foot Pain

Resolving Common Foot Conditions with Active Release Techniques

By Dr Jason Gray BHK DC MSc & Dr Stephanie Gray BSc DC

Do you experience pain in your heel or foot with walking, standing, or when first getting out of bed in the morning? If so, you are not alone. In fact, foot pain is one of the most common and frustrating musculo-skeletal problems we see today.

Although many people hope this pain will go away with some time and some rest this is rarely the case. Instead most of these conditions get worse over time and as they progress will start to interfere with work and recreational pursuits like walking or running.

What makes things even more frustrating is the fact that traditional treatments such as medication, modalities such as e-stim or ultrasound, and even stretches and exercises for foot pain are often slow to provide relief. And surgery is rarely an option.

But fortunately there is some good news.....

A new treatment technique known as Active Release Techniques (ART) is proving to be a very effective method to resolve many common foot conditions such as plantar fasciitis, heel pain, metatarsalgia, and even problems involving compressed or inflamed nerves in the foot such as tarsal tunnel syndrome.

If you are not familiar with ART treatment don't worry. This is a relatively new treatment method. So in this report we will discuss what you need to know about foot pain, including a review of Active Release Treatment.

Here are the key things we will cover...

- The underlying cause of virtually every type of foot problem
- Why traditional treatments are often ineffective or slow to provide relief
- What ART Treatment is... and how it is so effective in treating foot pain

What Causes Foot Pain?

Whenever patients come into our office we like to make sure they have a basic understanding of their problem..... not just their diagnosis, but also what has happened that has caused their problem in the first place.

While there are many different foot conditions almost every case of foot pain shares a common underlying cause. Of course there will be some differences with respect to exactly which muscles or joints have become injured, but the mechanism of how those tissues become damaged and irritated is essentially the same with virtually every foot condition.

So let's take a look at how the foot becomes injured in the first place.....

Muscle Strain, Muscle Scarring, and Foot Pain

The foot is one of the most complex areas of the skeleton. It is made up of 28 different bones, surrounded by an intricate system of muscles, fascia, and ligaments. In fact, there are more than 25 specific muscles that act to move and position the various bones and joints of the foot.

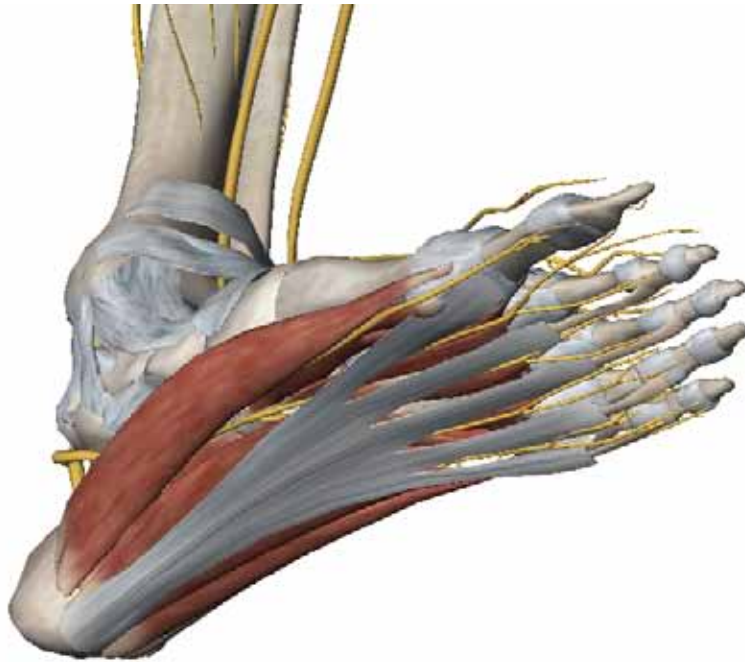
But most of these muscles are small and have to work hard to control the foot with even basic activities such as standing, walking, or climbing stairs. The demand on these muscles is even greater with physically demanding jobs or athletic activities involving running or jumping.

This heavy workload can cause the the various muscles, ligaments, and plantar fascia to become strained and fatigued. And over time this strain can develop into small scale tissue damage known as micro-trauma.

Initially this micro-trauma is very small and the amount of damage is not enough be painful. However, this damage still needs to be repaired, which the body does by forming new connective tissue in and around the damaged areas.

This new tissue formation - referred to as scar tissue or soft tissue adhesions - itself is not a problem. In fact it is a normal and necessary part of healing. But a big problem does occur when the foot is subjected to the same amount of stress and strain over the course of weeks and months.

When this happens the foot becomes caught in a repetitive strain cycle in which the same muscles, fascia, or ligaments are damaged and subsequently repaired over and over again. This process is associated with more and more soft tissue adhesion formation.



The body relies on an intricate system of muscles, fascia, and ligaments to position, protect and control the foot. If any of these tissues becomes tight, weak or damaged the foot can become compromised and more prone to pain and injury.

Think of these adhesions like rust and grime that can build-up in an automobile. Normally the parts of the car should be well oiled and move smoothly but when rust and grime are allowed to build-up the car begins to break down until eventually it does not work properly.

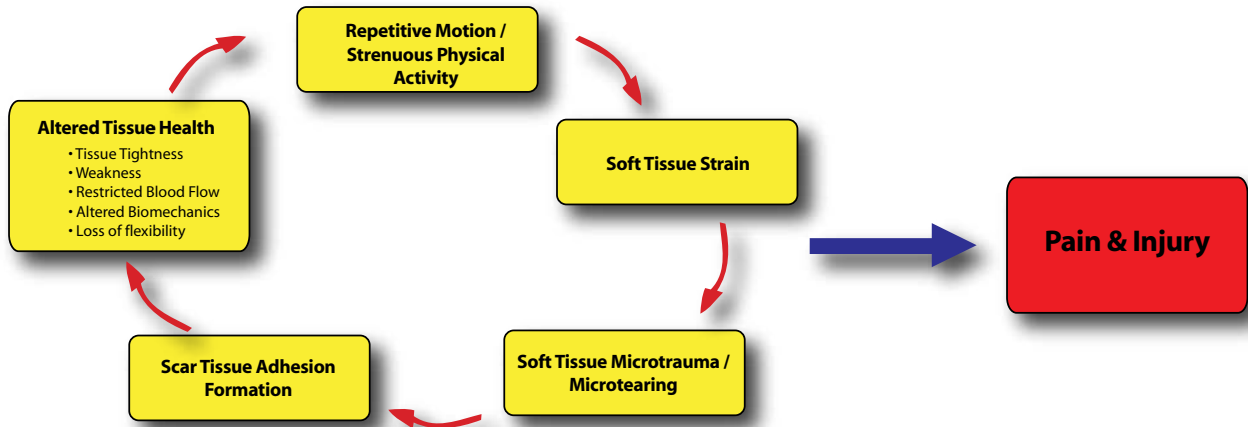
More specifically, as these soft tissue adhesions begin to build up in and around the foot it leads to problems such as muscles tightness, muscle weakness and diminished endurance, restricted joint motion, and diminished blood flow.

These adhesions are also very sticky and can cause the various muscle layers on the bottom of the foot to become stuck together. This will compromise the muscles ability to both slide against each other, further compromising flexibility and strength.

In many cases these adhesions can even cause some of the nerves of the foot to become stuck against a surrounding muscle or ligament and lead to nerve damage. It is actually quite common for a nerve entrapment at the foot or ankle to cause foot and heel pain and lead to an incorrect diagnosis of Plantar Fasciitis.

As this repetitive strain cycle continues at some point a symptomatic threshold is reached and pain will develop. Although the pain and symptoms associated with most cases of foot pain often seem to occur out of nowhere or after a routine activity you can see that the problem has actually been slowly developing over time and the onset of symptoms is often just the straw that broke the camels back.

The Repetitive Strain Injury Cycle



The Problems with Traditional Foot Pain Treatment

In an attempt to treat Foot Pain a variety of treatment methods are used. Some of the more common approaches include anti-inflammatory medications, rest, ice, orthotics, night splints, ultrasound (US), muscle stimulation (E-Stim), or stretching and strengthening exercises.

Unfortunately, most of these techniques generally require a long period of time before they provide any significant relief and in many cases provide only temporary relief from foot pain....assuming they help at all.

The reason these approaches are often ineffective is they fail to address the underlying scar tissue adhesions that develop within the muscles and surrounding soft tissues. Remember it is these adhesions that are making the muscles tight and binding the tissues together.

Passive approaches like rest, ice, medications, and modalities like e-stim primarily focus on symptomatic relief and do nothing to address the muscle restrictions and dysfunction. Orthotics are occasionally helpful but only in a small number of cases.

And even when orthotics are indicated they are only helpful with improving the alignment of the foot. They do nothing to treat the underlying scar tissue adhesions or improve muscle strength or flexibility. (As a side note... we have found that orthotics are one of the most over-prescribed and often unnecessary interventions for foot pain).

More active approaches such as stretching and exercises are often needed for full rehabilitation of the condition, but without first addressing the scar tissue adhesions stretches and exercises are often less effective and much slower to produce relief or recovery from foot pain.

Improved Treatment for Foot Pain with Active Release Techniques

So if all of these traditional treatments are not very successful for foot pain, what is the solution?

Well without a doubt we have found that Active Release Techniques (ART) treatment is the most effective, quickest, and most lasting treatment solution for foot pain.

Active Release Treatment (ART) was developed about 20 years ago by a doctor in the United States. This may seem like a long time but as far as treatment techniques go it is actually quite new - but it is making an big impact in healthcare and is becoming the treatment of choice for many muscle related problems.

In fact, virtually every professional sports team has an ART doctor on staff to help keep their athletes healthy and performing at top level. And many major employers have also begun to keep ART doctors on staff to reduce workplace injury.

So let's take a look at exactly what ART treatment is and why it is so effective if treating foot pain....



What is ART

Active Release is a hands-on treatment method to address problems in the soft tissues of the body, including the muscles, ligaments, fascia, and nerves. What makes ART different from other treatments is that it is specifically designed to identify and treat scar tissue adhesions that build up and compromise tissue health.

By locating and treating the soft-tissue adhesions with ART it allows the doctor to to 1) break-up restrictive scar tissue adhesions, 2) restore normal movement and sliding of the muscles and nerves, and 3) more completely restore strength and flexibility of the muscles which protect and control the foot.

When performing an ART treatment the doctor will first shorten the muscle, tendon, or ligament and then apply a very specific pressure with their hands along that structure. To assess the area the doctor will then stretch and lengthen the tissue underneath their hand contact.

As the tissue slides underneath their contact they are able to assess the texture and tension of the tissue to determine if it is healthy or contains scar tissue adhesions. When scar tissue adhesions are felt the amount and direction of tension can be modified to break-up the scar tissue and free the problematic area.

ART takes a long time to master and after years of practice ART docs are able to develop a very acute sense of touch and feel. This not only helps us to know exactly which muscles or ligaments have become restricted and damaged, but also helps improve treatment results by allowing us to be very specific with treatment. After all, if you cannot feel the problem how can you fix it?

This is something that cannot be done with other treatment methods or with stretching or exercises which target the foot muscles in a more generalized fashion.

An additional benefit of ART is that it allows us to further assess and correct problems not only at the foot itself but also in other areas of the kinetic chain - for example at the the knee, hip, or pelvis. Problems at these areas are often key contributing factors to the problem.

Even if these areas have not yet become painful they can impact how the foot moves and how it is positioned with activities like walking, climbing stairs, and running. Clearing problems at these areas will often play a critical role in getting the foot pain to resolve, especially with stubborn or recurrent foot pain.

How Long Does It Take to Resolve Foot Pain?

One of the best things about ART is how quickly results are felt. In our experience the majority of Foot Pain cases respond very well to ART treatment, especially when combined with the appropriate home stretching and strengthening exercises. Although each case is unique and there are several factors that will determine the length of time it will require to fully resolve a condition, we usually find a significant improvement can be gained in just 3-4 treatments.

Get Relief From Foot Pain

To learn more, or to book an initial appointment to see if ART may be able to help with your foot problem, simply call our office at (905) 685-7227, or book an appointment through our online scheduling system. For general questions you can either call our office or send us an email at info@graychiropractic.ca - one of our ART certified doctors will be happy to answer any questions you may have.

Dr Jason Gray BHK DC MSc



Dr. Gray is an honours graduate (Cum Laude) of Logan College of Chiropractic in St. Louis, Missouri (2004), and holds a Bachelor of Human Kinetics (Honours, Movement Science) from the University of Windsor. Most recently, he received a Master of Science degree in Kinesiology from Dalhousie University (2011), with a focus on running biomechanics and clinical assessment.

Dr. Gray has been a full-body certified Active Release Techniques provider since 2004, and has advanced training in musculoskeletal rehabilitation, strength training and conditioning, and biomechanics. He has published several articles in chiropractic trade journals and has written about and taught sport performance & injury prevention programs for a number of sports, including golf, running, swimming, and triathlon.

Dr Stephanie Gray BSc DC



Dr. Stephanie Gray is a Doctor of Chiropractic and is co-owner of Gray Chiropractic Spine & Joint Clinic. Dr. Stephanie was born and raised in St. Catharines. She completed her Doctor of Chiropractic degree from Logan College of Chiropractic, St. Louis, Missouri in 2004. She also holds a Bachelor of Science (Honours Kinesiology, Co-op) from the University of Waterloo.

Dr. Stephanie owned and operated a practice in Fall River, Nova Scotia for 9 years before returning to her roots in 2014. While in Nova Scotia, she also served as secretary to the Council of the Nova Scotia College of Chiropractors for 4 years. Dr. Stephanie is a member of the College of Chiropractors of Ontario, Ontario Chiropractic Association, Canadian Chiropractic Association. She has been a full-body certified Active Release Techniques provider since 2004.



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