

What About Soft Tissue Health?

You might think what I am about to say is a big "stretch," but my 40+ years of experience as therapist, athlete, and coach, tells me I'm about to nail it:

At least half of ALL of the runners and cyclists walking, riding, or running around out there right now, have serious (unhealthy) soft tissue "issues" of some kind, that are simultaneously compromising their health, increasing injury risk, and possibly preventing them from reaching their potential.

This is especially true for Masters athletes 40 and over. For many, they're one step away from a strain, pull, or tear – that could lead to weeks if not months of rehab.

Why is this the case? What's prompted me to make such a bold claim?

A (very) basic guide to understanding soft tissue:

First, let's clarify what I mean by the term, "soft tissue." I am referring to the connective tissue such as ligaments, tendons, and muscle that make up our structure, and ALSO.... the fascial envelope and our skin, that wrap us like the skin of a balloon.

So, what is fascia? Fascia is a network of layered connective tissue that surrounds muscles, bones and joints.

A joint capsule is also a connective tissue structure that surrounds joints and is involved in optimizing the mechanical function of the joint as well as giving it nutrients.

When the fascia and joint capsules are restricted it can cause:

- Decreased joint space which can lead to degenerative joint diseases and osteoarthritis.
- Increased muscle tone which can lead to trigger points, strains, tendonitis and tears.
- Increased nervous tissue tone which can lead to headaches, trigger points and muscle tightness.
- Decreased blood flow and energy levels, and much more.
- And of course, the aforementioned increased scar tissue formation.

"Soft" tissue?

The first word in that phrase, "soft," is actually a key to our basic understanding.

- Unhealthy connective tissue isn't "soft," it's stiff.
- Scar tissue, which develops in response to injury and trauma, forms into a material that is much
 more like mat fiberglass than supple muscle tissue.



Scar tissue forms in an irregular shape that ends up looking just like fiberglass.

When scar tissue is forced to stretch through movement, tearing often ensues. Tiny trigger points of unhealthy bundled up tissue form and create an ideal environment for a future injury.

On the other hand, HEALTHY connective tissue *moves freely*.

It slides easily within the layers of skin, fascia, muscle, tendon, ligament. It's organized and aligned, to allow for everything from natural elastic rebound.... to complete skeletal alignment and support.

Can you improve passive flexibility or improve hip joint range of motion, if the soft tissues surrounding the joints are <u>rock hard or stiff?</u>

The answer is, NO, it's not likely. At the very least, you'll spend a lot more time frustrated, trying to create real change.

- My work as a Fascial Stretch Therapist has helped reinforce the idea that we're truly
 "connected" linked from one body part to another, from top to bottom, in more ways than we might think.
- My many years as a coach and runner/triathlete has helped reinforce the fact that no amount of static stretching or mobility work is EVER going to create permanent change ...if the soft tissue is severely compromised.

As you look closely at this mobility training and consider what else you might be able to do to help you progress, you NEED TO ALSO consider the health of the tissue.

Know Thyself

If I had a dollar for every time an athlete has asked me whether or not THEY would benefit from a deep tissue massage or some Graston, I'd be suffocating under dollar bills. My standard reply is usually, "maybe." Or..."I have no idea, honestly."

What follows is that quizzical look – or even a little panic.

They assume I know as much or more about THEIR body, as they do.

We each need to know and recognize our own tendencies, and thus our limitations.

After all, the Ancient Greek aphorism "know thyself", is one of the Delphic maxims and was inscribed in the pronaos of the Temple of Apollo at Delphi according to the Greek writer Pausanias. I think the ancient Greeks knew that this was important. You should too!

So what to do? Start with trusting your intuition. What's it telling you? If you have been experiencing "tight," sore or achy muscles, you are probably sensing that perhaps... some help from a therapist might be in order.

Our bodies are amazing in their ability to heal, but very often it needs a little help from a friendly, knowledgeable, experienced set of hands.

Even with the best of care, soft tissue does not change overnight. Sometimes real changes in fascia take 2 or more years to realize.

Positive changes take time.

Your history matters: Do you have a history of injury?

If you're bringing a history of injury to this training, it's likely you have scar tissue that is fibrotic and might negatively impact your ability to increase joint range of motion.

As such, you will benefit from enlisting the services of a clinical provider such as a massage therapist, who is an expert in improving soft tissue health.

You'll need to be patient and persistent with your training.

Again, our bodies are amazing in their ability to heal, but we need to be patient and realize that soft tissue does not change overnight.

Are the training tools that help with self-myofascial release helpful?

So without a doubt, the average runner or triathlete loves their foam roller (or pick your tool...there's plenty of variations in today's marketplace)! For many, it's just about *the most important* training and recovery tool we have.

Even more, we seem to love the feeling (of pain!) as we hammer on our quads, IT band, and hips, don't we?

The more it hurts, the better we think it is for us...and the more we think we need to do it, right?

What are we missing?

When it comes to that statement I just made, I believe the truth is, we don't know exactly whether the pain is "good," or whether it's beneficial to do more of it when it hurts. Certainly, among the experts, the jury is out on what's actually happening to our body when we foam roll or use some other similar tool, AND whether or not there's real change in the tissue that helps us long term. In fact, according to one of my mentors, Dr. Andreo Spina, who is the creator of Functional Range Systems we aren't doing Self Myofascial Release at all, at least in the way many of us have believed.

I happen to agree with him.

I'm not about to say here that foam rolling is a waste of time or that it's bad for you.

For many athletes out there, they believe that the time they spend rolling and doing other soft tissue manipulation IS valuable and feels good, and isn't that what matters?

It can still feel good and be an effective way to improve your training. Foam rolling, using a baseball under a muscle, massage, ART, Graston Technique, IASTM, Rolfing, pin and stretch, etc... are all

methods that fall under the broader category, "myofascial release." Each of these has a place and can be helpful when done properly.

We have a lot more to learn about the topic

The bottom line, all I am saying is, we've got **lots more to learn** about the topic.

Here's a few things I've learned, especially since digging deeper (no pun intended!) into my role as a **Fascial Stretch Therapist (FST)**:

- The older and thicker the bound up, gummed up, stuck "fibrotic" tissue/fascia is, the harder it's going to be to change it for the better.
- Any kind of "release" of fascia, if it's going to be effective, has to involve movement, and I'm not
 talking about you moving your body over a roller, I'm talking about movement that involves
 changing the length of tissue. (This is where FST comes in.)
- When you press on (read: roll on, lean on, or "smash") damaged tissue, you're firing pain nociceptors and potentially reducing the chance for improvement. The feeling, even if it does lift your pain threshold somewhat (a positive training effect?), may be exactly what you don't want if it's "release" you're seeking. There's definitely a reason for the "no pain" policy when I'm working with someone doing Fascial Stretch Therapy.
- Any kind of soft tissue work including stretching needs to be done consistently and progressively
 in order to be beneficial. An every-so-often approach isn't likely to produce long term, positive
 change.
- To follow on the previous bullet point, in order for any kind of stretching to "take hold" and enhance movement quality long term, it's got to be locked into place with some kind of stability movement shortly thereafter. Gotta "groove the groove!"

- Joint mobility is one thing tissue health, elasticity, and freedom of motion, is another. We
 need BOTH to stay injury-free AND to go fast!
- When it comes to staying young, feeling good, and going fast (especially as we age), staying appropriately hydrated is so so important!

What about hydration?

As a coach, I find that many of the athletes I work with **fail to meet their minimum hydration needs** during their regular day in, day out training sessions, especially when it comes to the hottest training days of the year.

And as I wrote about in this blog post (Is It Possible You're Dehydrated?) here on the Pursuit website, we need to remember that the health of our soft tissue – how well it's able to function as designed, is 100% dependent upon water and adequate hydration.



Our fascial envelope is made up almost entirely of water.

Fascia is a water-filled membrane. To use an analogy, when you dehydrate even slightly, your fascia and fascial system begin to act more like *dried out (dehydrated!) beef jerky*, and less like *juicy, succulent prime rib*.

When you're dehydrated (even the tiniest bit) that fascial net can no longer help you bounce along.

With increasing water losses, you're required to **muscle** every step. Similarly, that *fascial net* provides much of your overall stability. Your balance, coordination, and ultimately your speed, suffer.

The bottom line is simple: Maintaining adequate hydration is critical for the health of your soft tissue, and important to your overall success with this program!

What is the Take-Home Message?

We need generally healthy soft connective tissue that moves well and is well hydrated in order to be successful in improving mobility.

But we can't lose our focus on the important work we should do daily, based on these principles, all of which you will learn about as you go through this program:

- 1. Force input IS the language of the cell...
- 2. What happens at the joint level is where we are most focused in this mobility training...

As such, we should focus primarily on **working with the training tools we have at our disposal**...and resist the temptation to fall victim to the popular idea that "rubbing" on top of our skin with some kind of tool is actually impacting connective tissue at a deeper level.

It may feel good, but it's probably not going to help initiate sustainable, long-lasting **tissue length or joint mobility changes**. And that is our goal: long term, sustainable positive changes in mobility.

The training tools I'm referring t	to î
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CARs, PAILs and RAILs, and the movements that go along with them that are presented in this course.

One last note on this topic: If soft tissue "problems" persist, the best option might be to look deeper at a holistic level – the entire body – with a Virtual Gait Analysis.