



## WHY IS PAIN SUCH A PAIN?

**By Chris Watts-Motion Dynamics**

Don't you hate the terms that get thrown at you, when you just came in for a sore neck and headaches - long leg, short leg, locked knees, lordosis, sway back, torsion, tilting, adhesions, sub-luxation, misalignment, etc, etc. Any of these could be you and probably is. These are terms that reverberate throughout the health profession and yet are often poorly understood by the patient.

What causes pain in soft tissue? There are six key factors that can cause "myofascial pain syndrome". Failure to treat all six aspects of this syndrome can lead to recurrent pain.

1. Ischemia—lack of blood flow to an area thus reducing oxygenation of the muscles.
2. Trigger points—area of increased metabolic waste, which excite neural pathways in the spinal cord causing referred pain.
3. Nerve compression—increased pain on nerves due to inflammation of soft tissues or bony growths.
4. Postural Distortion – changes in the bodies' alignment due to pain, work habits or sports.
5. Nutrition—insufficient nutrients from poor diet decrease cellular metabolism and increase irritation of the nervous system.

## 6. Emotional Well-being - "Stress" – the word we hate.

Some of these factors are **the responsibility of** your health professionals' to deal with and some are YOURS!

Muscles are stimulated by nerves, which enter the spinal cord with two different pathways. One is the long nerve fibers to the brain and the other one goes straight back to the affected muscle. This reflex arc allows the body to respond to its environment on a second- to-second basis without conscious brain involvement.

**This** is a typical story of "why pain is such a pain and what not to do". 'Jessica' is a mother of two, a career woman. Her lower back has never been the same since she had children, but daily life gets in the way of her seeking treatment. Her career is demanding and an intense workload keeps her at her desk all day. As the day proceeds she slouches lower into her "ergonomically incorrect" chair. Thus shortening her already tight back muscles, leading to further ischemia of the tissue.

When Jessica gets to the gym after work, she knows **that** she ought to stretch and warm up. After her intense day she wants to go and jog. If only she realized that 45 minutes of stretching would do her more good than 45 minutes of an incorrect workout. As she pounds the treadmill, thinking of how to overcome her son's newly diagnosed behavioral problems and the presentation due at 7am tomorrow morning, she slightly missteps twisting her knee and hip. There is a sharp pain in her back as the already shortened back muscles, have developed micro tears. Just then, she gives up the training and drives home numb – realizing that she has not eaten all day and only drunk coffee.

If Jessica **took** a few corrective steps during the day, **her** story may have ended differently. She broke all six rules.

As the reflex arc of these tight back muscles becomes well established, the metabolic waste deposits begin to increase, including bradykinin, histamine, prostaglandin, acids, acetylcholine, excesses of potassium ions, and proteolytic enzymes. These substances will

excite pain nerve endings and could even damage them. Nutrients and oxygen are decreased and neurostimulation to the cord establishes a vicious cycle of spasm and inflammation. The pain is now being caused by both mechanical (pressure) and chemical (waste product) stimulation. As muscular metabolism increases, pain increases. As pain increases, chemical substances are released, inducing more muscular spasm.

This **vicious** cycle is what needs to be broken. Non-steroidal anti-inflammatories are one solution to this, but they are merely taking away the symptoms not correcting the problem. Massage, stretching and other manual therapy techniques influence pain stimulation and pain perception. With an increase in bloodflow there is an increase in oxygen and nutrients to the area and removal of the wastes and chemicals that cause the pain. The sensation of touch stimulates the pain control center in the brain, which releases enkephalin and serotonin helping to reduce pain.

**Bearing in mind that pain is there for a reason and generally indicates body-system imbalances while highlighting unnecessary wear and tear on the musculoskeletal system, there are a number of things you can do to manage pain.**

At Stretch we always ask our clients to evaluate their own pain levels. On a scale of one

to ten (ten being unbearable), if you are suffering from a sharp wincing pain in the 3-4 bracket, you should be stopping your training routine to prevent more serious injuries. Other red flag indicators are heat, swelling, reduced muscular strength and that constant droning dull ache. This is the time to send your body to the garage to start the pain management and realignment process.

Symptomatic pain (what the clients feel) is usually a poor indicator as to what is really going on as pain has the ability to refer and spread around the body. We always say that pain usually lies to us!

Clients are often surprised when we work on the totally opposite muscle groups to those that are experiencing pain. A prime example of this is releasing tension in the Iliopsoas (hip-flexors), which when tight, cause the lower lumbar vertebrae to be dragged forward causing an exaggerated C-curve in the lower back putting excessive pressure on the lumbar disks. A simple stretching routine on the hip-flexor group will drastically reduce lower back tension. We should encourage all the secretaries to do this as statistics suggest that 70% of all office workers are or have suffered from lower back problems! Personally I don't see how one can work efficiently with such pain levels! Catch it before the disk blows out. It is much harder to deal with when the X-ray shows a narrowed disc. It is bone against bone from there on!!!

At Stretch our pain rehabilitation goes like this:

1. Postural Analysis to diagnose the muscular imbalances (you need the full picture to assess where your postural symmetry is at).
2. Target the swelling and inflammation to reduce contraction of tissues.
3. Restore flexibility and range of motion. Active Stretching techniques help to reprogramme tissues more effectively than passive ones.
4. Start a gradual regimen of strength training and muscle balancing to increase neuromuscular control.
5. Try to include regular massage into your training regimens, if nothing else just to increase muscular re-oxygenation.

One piece of good advice, don't get used to your pain. You shouldn't let it become part of you.

One client told me that he had a heel pain for the past 6 years **and** when he walked, the pain shot straight up into his knee, causing him to tilt 30 degrees to the opposite side. "Oh I've had that for years just came in to see if you could do anything."

Instead of having 80% of the clients coming to see us with their pain problems maybe in a few years from now it will be like dentistry, check-ups and prevention.

*by Chris Watts – Founder & CEO - Motion Dynamics*

*For further information, contact Chris at: [chris@chriswatts.biz](mailto:chris@chriswatts.biz) or visit his web site at:  
<http://www.chriswatts.biz>*

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