

CHIROPRACTIC (GENERAL)

## **Changing Inhibition Patterns: Breaking the Pain - Inhibition - Instability Cycle**

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In almost all of our patients, pain is the starting place. Any pain that lasts more than 48 hours begins to alter function. That means trigger points begin to develop, the pain spreads up and down the chain, and key stability muscles shut down. Once the smaller local muscles go "offline," they no longer are stabilizing the joints. The joints begin to move too much, which is instability, and this creates more pain.

Joints can either move abnormally in one direction, or just can have too much slop. The elegant research of the Queensland PTs, looking at timing delay in key muscles through EMG, was a breakthrough in understanding this. The stabilizers are deep muscles that surround the joint, and that fire early when any body movement happens. When they don't fire, small, but excessive movements happen, and the joint capsule gets stretched or stressed, activating pain sensors.

This is a little like understanding subatomic particles, in that the aberrant motions are not visible to the casual observer. In acute back pain, the tuned-in patient may notice that they cannot move normally, and can sometimes be aware of the lack of muscle activity.

## The vicious cycle of pain Pain Inhibition



It important to understand this as the starting point for treatment. The medical approach is usually about using pharmaceuticals to decrease the pain. That is one approach to breaking this cycle, but it does not address the inhibition directly. Rehab exercise is another approach. It attempts to retrain aberrant motion; to directly wake up the inhibited muscles through activity. There are many variations on how to approach this. The term *core stabilization* is often used, although it means different things to different practitioners.

There is a third approach we chiropractors have used forever. What is it? It includes adjusting and manual therapy. Releasing stiff joints, releasing tight knots in muscles is another way to wake up the stabilizers. I don't know if we deeply understand this. George Goodheart said it's not the tight muscles, it's the weak muscles. He then created an elaborate system, applied kinesiology. AK starts by testing muscles and then finding "reflex" ways to turn them back on. I'm not sure that manual muscle testing is the best way to assess stabilizers, but the overall model does assess the inhibition side of the vicious cycle of pain-weakness-instability.

Perhaps a way to think of this model goes something like this: Pain creates muscle inhibition. Pain or abnormal posture, or stress, or *whatever* can also create lesions. What is a lesion? Think of a

lesion as any glitch, any interference pattern, any subluxation, any blockage. These *lesions*, for lack of a better term, are a broad category of problems in the body. The lesions are self-reinforcing, persistent, and contribute to pain and inhibition.

I remember reading Harper's *Anything Can Cause Anything*. The message: any lesion can cause any problem in the body. Chiropractors have always talked about removing lesions (subluxations) that are blocking nerve flow. I think this language is archaic, but the concept is still useful. The acupuncture model, thousands of years old, focuses on finding blockages in meridians, releasing them through needling, to allow the flow of *chi*.

Let's look at the various schools of bodywork and healing. Everyone seems to think their lesion is primary, or they have a system for deciding which lesion to work on first. Chiropractors tend to think of subluxations, of spinal joint dysfunction. Bodyworkers tend to think of tight places in the muscles. How about visceral manipulation: the lesion is restriction in the movement of the fascia of the organs. Or cranial manipulation: the lesion is seen sometimes as a lack of movement of the skull plates, or more globally as restriction in the whole craniosacral system, mediated via the dura mater. Another system, lymphatic drainage, tries to address blockages in the lymphatic system. There are all kinds of somatoemotional systems that look at where emotions have gotten lodged in the body and attempt to release them.

I have studied enough of these systems to know the internal talk of many of them. Each of them sees itself as working on the primary lesions. Each of them develops its own elaborate jargon. I am not knocking this; I am just noticing what we humans with our overactive brains do.

Instead of listening to the internal talk of these systems, perhaps it would be useful to see them all as variations of the seven blind men evaluating the elephant. We all have our blinders; we all have our ways of looking at the body. The universal might be that our assessment and input, our "adjustment," wakes up something critical in the body-mind, and the biological system starts to work better.

The post-check is always critical. Did the muscle get strong? Did we wake up something important? It is important in any system to have some sort of objective way to monitor whether we really did anything useful. If you just check the internal indicators within your system, you can get lost and narrow. The cranial rhythm is better, the restriction is gone, the leg check changed – these are never enough. You have to step outside your own system and use functional indicators. Have you affected function?

What I love about treating patients in pain is that the functional indicators are right there in front of you. Is their gait better? Can they lift their arm more easily? Can they bend forward or backward with less pain, in a smoother motion? It is fairly easy to find a functional indicator for the patient's chief complaint.

A successful input, a successful "adjustment," changes function and hopefully starts to break the vicious cycle. I don't think we get enough recognition or credit for this. I am always attempting to use this model. How do I break the inhibition cycle? Sometimes it is about getting some restricted joint released. Sometimes it's about releasing tight muscles. Sometimes it is deep fascial work to wake up the neuromuscular system. Sometimes it is functional rehab – retraining a motion. Sometimes I have to dig deeper into my bag of tricks, releasing visceral restrictions, resetting ganglia, looking for scar tissue, looking for emotional blockages.

It is always about stepping back, about looking more broadly, and not just treating the site of pain over and over. I always attempt to assess for immediate functional change. I want to know that I've

made a real difference. In-session changes are strong indicators that you are on the right path.

I am not suggesting you change what you do. I am asking you to look at your work and its effects a bit differently. Keep up the good work.

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