

THE TRUTH BEHIND CHRONIC PAIN

This is a surprisingly hard concept for most people to understand. Common thoughts that might come to mind are “My knee is killing me, how can it be my brain’s fault?” Or “It takes me so long to get moving in the morning because my back is so sore and stiff. What does my brain have to do with that?” Or “I haven’t been able to swing a golf club like I used to ever since my shoulder injury from 10 years ago, so why is my brain to blame?”

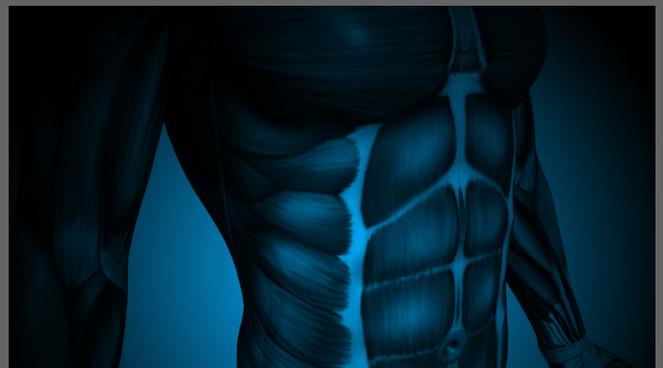
All perfectly rational thoughts, but once you understand the basics of neuro-science and how the brain actually deals with things, you’ll begin to see all of those misconceptions about pain unravel.

In order to understand why chronic pain exists, and why so many suffer from it, you must first understand that all pain lives in your brain. Yes it’s true, and understanding this basic tenant of human function is key to living a pain-free life.



The body’s **central nervous system** uses neural pathways to send signals from your brain to the rest of your body and back again in a never-ending closed loop system. It’s an intricate highway system flowing from head to toe, and is the brains tool in communicating with the rest of your body. Our brains are constantly processing tons of information from our bodies every second: cognition, movement, sight, sound, smell, touch, emotions, movement, the list goes on.

The **neuromuscular system** is the motor/movement system of the human body. Your brain uses central nervous system to send signals to very specific muscles telling them to contract and produce movement. Every single movement we perform as humans from blinking our eyes to breathing to speaking is a controlled signal from the brain to the muscle telling it to contract.

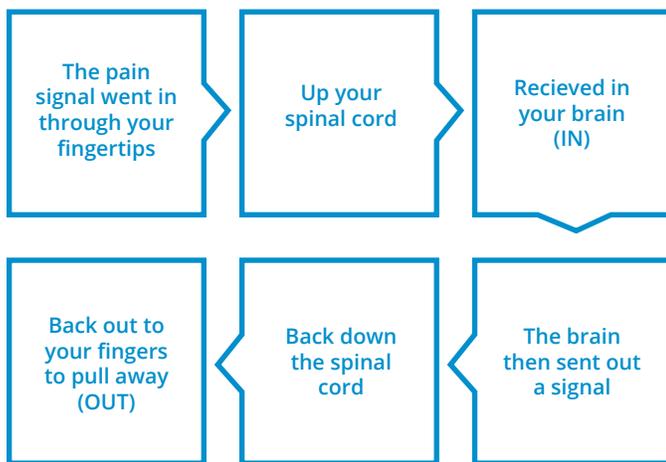




IT'S ALL ABOUT THE INS AND OUTS

Your brain is the **smartest** and most **advanced technology in existence today** and can process and act at speeds the Internet could only ever dream of.

Think about touching a hot stove. Chances are you move your hand away from the burning heat with lightening speed. Your nervous system enabled the following process to happen:



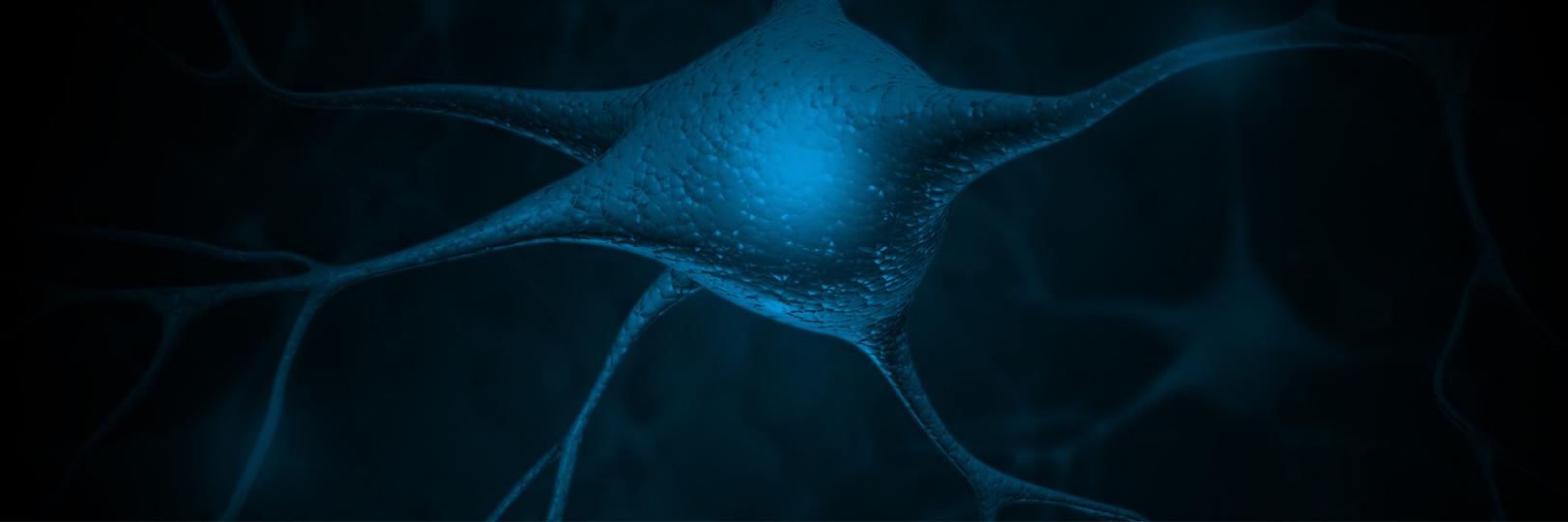
In the most simplistic terms, our brains and nervous system are constantly engaged in a series of **sensory (in)** signals followed by **motor (out)** signals. Some of these signals we feel everyday like touching that stove, feeling tired, sipping tea,

or scratching an itch. We're aware of these things because we feel these things immediately. But the issue is what happens with the stuff we can't feel immediately? This is where we begin to separate the conscious brain from the subconscious brain. Our conscious brain is where we live, feel, love and suffer. The conscious brain gives us the sensory experience of life, but the subconscious brain is doing the real work.

Now that you've got the basic facts about the brain, nervous system and neuromuscular system, let's talk about CHRONIC PAIN.

Here is how all of this relates to your chronic pain: our brains employ our central nervous system to communicate with the hundreds of muscles within our neuromuscular system to produce motor outputs (movement/action/speech). So when it comes to pain, we must look beyond where you feel the pain in your conscious to the actual route cause in your subconscious: what your brain is outputting to your neuromuscular system.

When have you heard a doctor say that all of your lower back pain is probably coming from your quads? Likely never, but quads are one of the biggest muscle groups in the entire body and happen to be the secret to balancing and stabilizing the entire body as well as permanently eliminating lower back pain.



It's important to understand how your subconscious **brain deals with pain**, function, and recovery.

When injury or imbalance occurs, your brain triggers an immediate protective muscular response in (2) basic phases with (2) basic objectives:

1: Brain **spasms** (inflames or enlarges) the muscles around the injured area to **protect** it from further injury. This causes other surrounding muscles to spasm.

2: Brain now **compensates** for the muscular system's imbalance caused by the spasms by sending new signals to "helper" muscles. This allows your body to (however painfully) continue **functioning**.

Here's a perfect example: you sprain your ankle and start limping. The limp is the compensation to protect the injury and keep us moving. The brain has stopped normal ankle (muscular) function because of injury and has redirected muscular signals into the knee, and hip to alter movement (limp) so that we can still walk and remain functional. Stress, bad posture and/or sleeping habits can also trigger this (2) phased system.

The compensation phase is great for getting you to still function while in pain. But if this phase lasts too long or repeats itself enough, it begins

locking your muscular system into chronic and dysfunctional patterns that lead directly to long-term chronic pain. Think of compensation simply as a **detour** in your highway system. Normal nerve and output signals can't get through due to the injury or spasm, so the brain uses a different route to accomplish the task at hand. These detours within your neural highway system are the very **reason your pain is chronic**.

MUSCULAR EXHAUSTION

Remember those "helper" muscles the brain uses to protect injury and promote function? Well, eventually these muscles fatigue and begin to need help themselves. When this happens the brain will call on nearby muscles to further help, which causes even more compensation. Sooner or later your brain will literally run out of muscles to help (there's only 640 of them). And when it's out of muscles, the brain will dramatically increase pain levels that will trigger you to stop or limit movement altogether and go into a very protective mode. This is actually the brain's way of saying, "that's enough boys, shut it down". The spasms that temporarily cripple you may subside, but the entire imbalance that led to the painful downtime still exists in your muscular system. This is called a pain cycle, and it will continue until all brain-based muscle imbalances are released and the body has been "freed" to function normally and without interference.



THE SECRET WEAPON

You now have a basic education of Physiology 101 and how your brain uses muscles to deal with pain to keep you functional. Understanding these simple physiological concepts will give you the knowledge necessary to get the help you need. By now you are an expert in the neuromuscular system. You fully grasp the idea that your brain is in charge of your chronic pain and how it deals with it through your muscles. The old cliché that “knowledge is power” has never been truer that it is when taking control of your pain for good.

We can now start to **attack** the imbalance and get to the **true cause** of your pain through **Neuromuscular Release Therapy** (NRT) at Mojo Physio.

A note about the reality of pain recovery...

With NRT, it only takes the first session to feel immediate pain relief. But the key to removing the imbalances for good is **consistent** and **specific therapy** applied to the right muscles.

Some people will think that NRT treatment may take too long to get lasting results, is too expensive, or is too time demanding on their schedule. But ask yourself what a pain-free life means to you? Imbalanced patterns can be removed in as little as 6 -8 hours of precise therapy

treatments. This equates to only 6 to 8 hours of treatment to reverse more than 15 to 20 years of symptoms and imbalance. In any language, that’s pretty damn good.

If it can be changed for **a minute** it can be changed **forever**.

This simple statement should become your new mantra and it is the very basis for a successful recovery, but most importantly it is the **first sign of hope** that things can actually change. It simply means that if pain levels are improved for even just a few hours through NRT, they can be improved forever.

MOJO PHYSIO
WE FIX CHRONIC PAIN

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