

Appendix

How to Determine if You Have Neuroplastic Pain

There's one question I get more than any other. A pain sufferer will describe their symptoms to me and then ask, "Is this neuroplastic?" My answer is always the same, "It *could* be."

The brain is capable of generating any physical sensation in any part of the body: Pain in your back, your neck, your eyes, your teeth. Muscle pain, nerve pain, sharp pain, dull pain. Tightness, tingling, burning, numbness. If you're experiencing an unpleasant sensation anywhere in your body, it is absolutely possible that it's neuroplastic.

But how do you know if it is?

As I mention in Chapter 2, most chronic pain is neuroplastic. That being said, there are chronic pain conditions that can be caused by physical problems in the body, such as tumors, infections, fractures, and autoimmune disorders.

Because all pain *feels* like it's coming from the body, it can be difficult to distinguish between pain that's physically caused and pain that's neuroplastic. Luckily, there are certain signs you can look for that point to neuroplastic pain. Here is a list of guidelines that can help you make this determination.

Pain Originated During Time of Stress

About half of the patients that I've worked with had their pain first appear during a particularly stressful time. Maybe their job was really intense, or they just had a new baby. Maybe they were under a lot of financial stress or had recently lost a loved one. As I discuss in Chapter 3, stress puts the brain on high alert and can trigger pain. So, if your symptoms started during a stressful time, that points to neuroplastic pain.

Pain Originated Without Injury

If your pain first came on without any preceding injury, that's a sign that it's neuroplastic.

But what if you did injure yourself? I've seen a number of patients whose neuroplastic pain started with an injury. One patient pulled his hamstring during a soccer game. Another hurt her neck in a car accident. A third slipped on some ice and sprained his wrist.

At first their pain was appropriate - it was due to actual tissue damage in their bodies. But after their injuries healed, their pain persisted. It became neuroplastic. So, even if your pain started with an injury, if you're past the normal course of healing, it's likely neuroplastic.

Symptoms Are Inconsistent

Often patients with neuroplastic pain have inconsistent symptoms. I had one patient who liked to take walks around the block, but sometimes he would have pain and sometimes he wouldn't. I had another patient who always had pain when she drove, but sometimes it was a 2 out of 10 and sometimes it was a 7 out of 10. A third patient had pretty bad pain Monday through Friday, but on the weekend, it was hardly noticeable.

This kind of inconsistency is a big sign that your pain is neuroplastic. Structurally caused pain generally doesn't have this type of variation.

Large Number of Symptoms

Some people with neuroplastic pain experience symptoms in multiple parts of their bodies. Assuming you don't have a systemic disorder such as multiple sclerosis, cystic fibrosis, or lupus, this points to neuroplastic pain. Having 3 or 4 unrelated physical conditions is extremely unlikely. A single underlying cause - neuroplastic pain- is a far more plausible explanation.

Symptoms Spread / Move

I've had patients where the pain starts in the lower-right side of their back, and over time spreads to the left side. And then to the middle. Soon, their entire back is in pain. When the symptoms spread over time, it's indicative of neuroplastic pain.

Likewise, sometimes neuroplastic pain bounces around from one area to another. For example, you feel pain in your left leg one day and in your right leg the next. Or you have lumbar pain in the morning and thoracic pain in the afternoon. This is not how structurally caused pain acts.

Symptoms Triggered by Stress

Does your pain get worse when you're running late for an appointment? Or when you're arguing with your spouse? Or when you send a snarky email about Tim from Accounting and then realize you accidentally hit "Reply All"?

If you have pain that comes on or gets worse during times of stress, that's indicative of neuroplastic pain.

On the flipside, when you're engaged in an activity and enjoying the experience, you may find there's a decrease in your pain. Much like my Lakers story in Chapter 4, this can be valuable evidence that you have neuroplastic pain.

Triggers that Have Nothing to do with Your Body

In Chapter 4, I talk about conditioned responses - instances where pain becomes linked with a neutral trigger. Often these are physical positions or activities, but sometimes our symptoms can become linked with other triggers as well. I've had patients whose pain fluctuates depending on the weather, sounds, smells, or even time of day (for example, pain that's worse in the morning or only comes on at night). One patient's pain even came on every time she watched the tv show, *The Bachelor*! These are all just conditioned responses.

If your pain is triggered by something that has nothing to do with your body, that's a clear sign that it's neuroplastic.

Symmetrical Symptoms

I've had many patients who developed pain on the same part of their body on opposite sides. Both wrists, both ankles, both thumbs. It's very unlikely to develop a physical problem on both sides of your body at the same time. This suggests neuroplastic pain.

Delayed Pain

Sometimes patients with neuroplastic pain experience symptoms only after they complete an activity. One of my patients had chronic lower back pain and hiking was a big trigger for her. Except she never had pain while she was hiking. It would always come on an hour or so after she finished. This type of delayed onset is not something you see with structurally caused pain.

Childhood Adversity

People who have experienced trauma in their childhood, such as abuse and neglect, are more likely to develop chronic pain as adults. But it isn't just *major* trauma that can lead to neuroplastic pain. Anything that made you feel unsafe growing up can predispose you to chronic pain.

Maybe you grew up with an anxious dad who always jumped to the worst case scenario.

Maybe you had a critical mom who made you feel like you were never good enough.

Maybe your father was an alcoholic and you never knew what kind of mood he'd be in.

Maybe your mother was depressed, and you were preoccupied with making her feel better.

Maybe your older sister got all the attention and you didn't get your needs met.

Or maybe your home life was relatively trauma-free, but you were bullied in seventh grade or went to an ultra-competitive high school or were ostracized on social media.

When you have these kinds of experiences growing up, it can cause you to see the world through a lens of danger which makes you more susceptible to neuroplastic pain.

Common Personality Traits

There are certain personality traits that are common in people with neuroplastic pain. As I discuss in Chapters 3 and 8, many pain patients are prone to self-criticism, putting pressure on themselves, and worrying. Here are some other traits that are common in neuroplastic pain patients, with a brief example of each:

- perfectionism - Bob spends twenty minutes writing a three sentence email because he wants the tone to be *just right*.
- conscientiousness - Emily's group project is due tomorrow. She's staying up all night fixing everyone else's work to make sure they get an A.
- people pleasing - Jennifer asks Liam to take her to the airport. Even though it's during rush hour and he has a million things to do, he says yes because he's afraid of disappointing her.
- anxiousness - Daniel never wants to be late, so he always gets to social gatherings 10 minutes early. But he doesn't want to be the first one there, so he waits in his car until he sees other people going in.

It's not surprising that all of these traits are associated with neuroplastic pain. Each of them puts the brain on high alert, albeit in different ways.

Lack of Physical Diagnosis

If doctors are unable to find any clear cause for your pain, that's a pretty solid indicator that it's neuroplastic. But if you *have* been given a diagnosis, don't despair. The majority of patients that I've worked with had been given a physical diagnosis at some point (and many of them more than one). As I mention in Chapter 4, doctors are trained to look for structural causes. This means sometimes they zero in on a structural issue, even if it isn't actually causing the pain.

But if you have been lucky enough to hear the words, "We can't find anything wrong" from your medical practitioner, that's as clear a sign as any that your pain is neuroplastic.

Where to Go From Here

You may see yourself in some of these sections or even all of them. That's great evidence that your pain is neuroplastic. But perhaps none of these guidelines resonate with you. You may be thinking, "I don't have pain in multiple areas and it doesn't bounce around. It's only in one place in my body, it never moves, and it's not affected by stress."

Even if none of these guidelines apply, you could still have neuroplastic pain. Neuroplastic pain is very good at mimicking structurally caused pain. As you practice the techniques outlined in this book, keep these guidelines in mind. Often patients start seeing evidence that their pain is neuroplastic as they apply the lessons of Pain Reprocessing Therapy.