# UNTANGLING

### the Chronic Pain Conundrum



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he management and treatment of pain—particularly chronic pain—has undergone significant transformation in recent years. This is very welcome news for patients who are just beginning to become aware of the scientific developments in this area.

The paradigm is evolving, with evidence that pain management dominated by opioids, steroid injections, and even surgery, often does not provide enduring long-term pain relief.

This is because science has come to show that—while pain can initially be caused by tissue injury or damage—surprisingly, over time, chronic pain is less linked to structural issues in the body.

A study in the *New England Journal of Medicine* found that 64% of people with no back pain have disc herniations, bulges or disc degeneration. This weak relationship between structural abnormalities and symptoms is further illustrated in studies of knee osteoarthritis. In population-based studies, 30-40% of patients with moderate to severe osteoarthritis have no symptoms. These studies, and many more like them, are evidence that patients with virtually identical structural issues can have entirely different pain experiences. Thus, we've begun to evaluate with scientific rigor: why do some individuals experience pain and others do not?

Studies in pain and neuroscience now demonstrate that chronic pain is a complex biopsychosocial phenomenon and can be related to changes that occur in the nervous system at the level of the body, the spinal cord, and the brain.

Let us first understand how pain works: when a specific area of the body is injured, a message is sent to the spinal cord and brain; the brain then processes the signal and produces a sensation of pain. While the sensation of pain is felt in different areas of the body, the experience of pain is actually created in the brain.

In acute situations, pain is a normal and essential way the body protects itself from further injury. However, when pain lasts or recurs for more than three months, it is defined as chronic pain and is no longer normal. With chronic pain, pain itself becomes the disease, as the nervous system may stay in a

state of reactivity after the initial injury has healed. This leads to an increased experience of pain at lower thresholds, even without harmful stimuli.

The human brain is highly adaptable and is constantly changing in response to new experiences—we call this neuroplasticity. This is how one learns a new skill; however, sometimes this can be problematic—when the body experiences pain repeatedly, the brain and its neural pathways can change in a way that reinforces the experience of pain, creating an ongoing cycle.

In my 10 years of concentrating on patient pain relief, I have seen a diverse range of conditions including back, neck, joint, and total body pain, as well as fibromyalgia. All these conditions involve very real pain. But with the awareness of neuroplasticity as a major component of pain, we can now take a more expansive approach to treatment. Rather than proceeding directly to medications, injections or surgery, we take a more comprehensive view of each patient. We target treatment at the underlying mechanisms and use evidence-based techniques to "rewire" the brain, calm the nervous system, and reduce systemic inflammation.

Physicians who are adopting this approach are seeing dramatic outcomes. Patients are beginning to obtain real relief. Many of us in this field believe that this root-cause methodology, will become mainstream in the not-too-distant future. At the present time, positive healing results—patient after patient—is empirical evidence that a holistic approach is part of the solution to the chronic pain conundrum.

## Here is a real-life example from our practice at Elevate (summarized with patient permission):

"Andrew" (name changed to protect patient confidentiality) is a 59-year-old very active male with three-year history of low back pain/sciatica. His MRI revealed severe multilevel degenerative disc disease with disc protrusions and foraminal stenosis. After failing conservative care, he underwent a lumbar spine procedure two years ago. He was pain free for six-to-seven months when the pain returned. He then began regularly undergoing lumbar epidural steroid injections every four months with relief for two months at a time. Andrew was taking several pain medications that were ineffective. He had trouble





Our mission is to bring together diverse and innovative methods to heal pain, improve physical function and enhance well-being. We prioritize non-invasive, evidence-based, non-opioid therapies that promote the body's innate restorative mechanisms.

Conditions treated

- back pain
- Muscle strain
- Neck Pair
- Fibromyaloi:
- Joint pain
- Chronic pain

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#### **EXPERT CONTRIBUTOR**

sleeping due to pain and his quality of life was significantly impaired. He was unable to walk more than 20 feet without pain. Fed up, he was on the verge of considering lumbar spinal fusion surgery when his friend recommended that he see me for a consultation.

After attaining a thorough history and a detailed physical examination, we determined a plan specific to this patient. He was highly motivated and very compliant with the prescribed treatment plan. Andrew elected to undergo a several week protocol of laser therapy while implementing select, meaningful lifestyle changes and techniques to calm the nervous system, create new neural pathways and reduce systemic inflammation.

Within just three weeks, Andrew described his pain as 75% better.

He can walk more than one mile daily with no pain. He sleeps soundly through the night without pain. He cut his pain medications in half, and we are gradually tapering them off. Perhaps most importantly, he is overjoyed to be able to dance at a family wedding without pain. Andrew is not having back surgery. He is continuing to progress, and we have expectations for further pain resolution. In short, Andrew got his life back.

Dr. Arti Panjwani is a Board Certified physician with over a decade of experience in managing musculoskeletal pain conditions. Her practice, Elevate Physical Medicine & Rehabilitation, is at 55 Bryant Avenue in Roslyn. Visit www.elevatepmr.com for more information, or get in touch by calling 516-464-6049 or emailing info@elevatepmr.com.

#### Resources

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It's a team effort to find out what fits and what doesn't in your mental wellness journey. My art therapy practice is a non-verbal and safe means to express your feelings and fears.

