Chronic Pain: A Silent Catastrophe Affecting 300+ Million People in the U.S.

Everyone knows what pain is because we've all experienced it. Pain is a signal from the body that something is wrong — an injury, damage, or maybe even an infection. This damage sends an impulse to the brain, which produces a pain response in the body.

This was the definition of pain during my formal training, but since then, it has become increasingly clear that while it may be accurate for acute pain, it's not as accurate for chronic pain. Recent discoveries have shed light on how chronic pain differs from acute pain and why chronic pain is so difficult to treat. Until recently, chronic pain has been treated the same as acute pain, but it's clear today that this approach does not work. In this two-part series, I'll explain the challenge with chronic pain, new research on the subject, and new treatment options.

Acute vs. Chronic Pain

Acute pain typically has a known cause and seems to serve a purpose. It alerts us to a problem, which gives us an opportunity to find a remedy. It usually subsides in a short time with or without treatment, rarely lasts longer than a few weeks or months, and disappears when the underlying cause is resolved. Chronic pain, on the other hand, can be entirely different. It generally serves no purpose in the body and may or may not have a known cause. Often, it can get worse for no apparent reason.

Pain Without an Identifiable Cause

Current research has revealed that in most cases of chronic pain, there are changes in the nervous system that alter the way the nerves function. These changes allow for the transmission of a pain signal from the brain without a corresponding input. In other words, we can experience pain without an identifiable cause and it can persist long after the injury heals.

A classic example is a condition known as "phantom limb pain" where a patient who has had an amputation complains of pain in a limb that no longer exists. Another example is a condition called "post-herpetic neuralgia". This occurs in a patient who has had a recent shingles outbreak and the severe debilitating pain persists long after the shingles has disappeared, perhaps even for years. These are "accepted" forms of chronic pain where we have a clue as to the cause of the initial pain.

The real problem is when a patient continues to have severe pain after an injury has healed, or even worse, who never had an identifiable injury to begin with. There isn't any measurable way to make a diagnosis. Yet doctors justify using pain medications, especially narcotics, in these cases. How many patients have been treated for their acute pain injury with narcotics and then told that the injury should have healed and they no longer need pain medication, yet the pain persists? And how many patients experiencing real pain are sent to a psychiatrist because no physical pain cause could be found so it's "all in their head"?

One of the biggest difficulties in identifying and treating pain has been that pain is purely subjective, meaning it can't be physically measured and can only be quantified based on how the patient says they feel. When we actually look below the surface of pain, an entirely different picture emerges. That's why conventional medicine has been failing miserably in its ability to effectively treat pain.

Advancements in Identifying the Source of Chronic Pain
Scientists have recently documented actual changes in the nervous system, especially in an area of the spinal cord known as the dorsal root ganglion, in which physiological changes have been identified in chronic pain conditions even when there is no known cause for the pain.

These abnormalities include decreases or increases in certain chemicals, over-activation of certain nerve pathways, and involvement of nerves previously not associated with pain. With this new research, our understanding of acute and chronic pain is changing. This new data provides supporting evidence for the use of many other drugs and therapies in the treatment of pain beyond the "normal" pain meds.

The Problem with Conventional Pain Treatment
Historically, pain was treated based on its cause, location, and severity. The most popular pain assessment tool was the 0 to 10 scale where 0 was no pain and 10 is the most pain. Mild pains and headaches were treated with Aspirin, Acetaminophen, or Ibuprofen. When there is a more severe pain, stronger medications like opioids were used.

Opioids are among the oldest known drugs and have been the standard of pain treatment for a very long time, and they've been used and abused for centuries. Used" refers to their medicinal properties in which they bind to receptors in the body referred to as opioid receptors, and thus block the sensation of pain. That is, they interfere with the impulse and response somewhere in the central nervous system — or so we used to think. "Abused" refers to the non-medical use in which they are used for their hallucinogenic or euphoric properties.

The thinking was the more severe the pain the stronger the narcotic, but the 0 to 10 method is flawed and not always a proper assessment of pain.

30% of the U.S. Suffers from Chronic Pain

According to the Institute of Medicine of the National Academies Report, in 2011, over 100 million adult Americans had chronic pain. This estimate didn't include acute pain or children. The entire population is estimated to be about 311 million people, or almost one-third of the U.S. population. That's more than those suffering from diabetes (25.8 million), coronary heart disease (16.3 million), stroke (7 million) and cancer (11.9 million). This same report estimates that the cost to treat pain in the U.S. is between $560 and $635 billion a year. To say that we are dealing with an epidemic of chronic pain is an understatement. And the picture looks even worse when we look at the effectiveness of treatment.

The Worst Fact

A 2002 Review published in The Clinical Journal of Pain revealed that, "None of the currently available treatments eliminates pain for the majority of patients." This may be the saddest, most concerning fact of all. Report after report indicates that many pain patients, unhappy with the lack of success of therapy, tend to visit multiple physicians in search of a solution to their pain.

We have a standard of care in which patients diagnosed with pain are routinely prescribed addictive drugs classified as narcotics that usually don't work, at least not completely. So, patients seek another doctor or attempt another medication because they are still in pain. This system not only encourages drug-seeking behavior, it creates it. Patients whose only goal, at least originally, was to seek pain relief are now caught in a Catch 22 situation. Their desire to pursue pain relief has resulted in a social stigma so catastrophic that it, in addition to their pain, can destroy their lives. This problem is very real and could be one of the most significant silent catastrophes of our time.

The Black Sheep

We don't hear about this silent epidemic the same way we hear about cancer, Alzheimer's disease, Multiple Sclerosis or any other of the so-called accepted diseases. Chronic pain is like the black sheep that nobody wants to talk about.

Many doctors and pharmacists are shying away from even treating chronic pain patients because of their fear of government regulators looking over their shoulder. These regulators are not necessarily concerned with proper patient treatment, but rather are searching for patterns of abuse. As mentioned earlier, how can we tell the difference between drug seeking for abuse and drug seeking for pain relief? Fear of loss of license and livelihood on the medical side is an absolute reality, which many patients don't realize.

Recent Advancements in Treatment

In part two of this series, I will discuss recent advances in science and compounding pharmacy that are leading to customized pain therapy, producing results never seen before. Read Part 2: Compounding Pharmacy Advances Treatments in Chronic Pain, Reduces Opioid Epidemic.