



Can Ketamine Help with Chronic Pain?

By Dr. Justin Yanuck and Dr. Tanya Dall - Renew Ketamine Infusion

Pain is not solely in your head; however, many factors in your brain contribute to discomfort that are not directly related to the source. And this is where Ketamine can be helpful.

Chronic pain is defined as pain lasting more than three months and associated with significant emotional distress and/or functional disability. Over 20% of Americans suffer from chronic pain. However, the vast majority of patients who seek medical help have their treatments catered toward biomechanical sources (like an arthritic knee or herniated disc) instead of the multiple other factors that contribute to pain.

Chronic pain is much more than a biomechanical/inflammatory byproduct. In fact, studies have shown that if you take 100 healthy adults with no back pain and do an MRI of their lower backs, about 30% of them will have severe disease noted on the MRI, which would typically be associated with a painful condition. Furthermore, 20-40% of patients with chronic low back pain have no significant imaging findings on MRIs. How is this so?

Chronic pain can be caused by a mixture of hyper-sensitized, easily irritated peripheral (outside of the spinal cord) and central (spinal cord and brain) nerves. Furthermore, chronic pain results from central amplification, which occurs when the pain signals become heightened as they move toward the parts of the brain that process them. Another factor is how much attention and focus your body gives to these signals.

For example, if you are sitting down right now, it's unlikely you are thinking about the touch signals coming from the chair to your buttocks—your brain ignores these because you have learned over time these signals are not important. However, if you concentrate on a specific painful sensation—consciously or unconsciously—your brain will devote more and more real estate to processing signals from that location. This is how central amplification occurs, and real neurobiological changes happen when it does. Additionally, chronic pain is often accompanied by other mental health disorders such as depression, anxiety, and PTSD, and all of these can independently influence and amplify one's perception of pain.

Unlike surgical procedures, opioids, or anti-inflammatories which treat pain purely as something biomechanical, Ketamine addresses the actual root causes of chronic pain like those described above. Ketamine does so through its action on the NMDA receptor, triggering several critical downstream reactions that alter a patient's perception and response to the pain. These reactions lead to something called "neuroplasticity," the development of new neural connections that create different ways to process pain.

Ketamine infusions are typically done over 10-14 days, with five infusions stacked together to optimize neuroplasticity and change how the brain processes pain signals. These neurobiological changes combined with an integrative psychotherapy program have been shown to treat many of the most challenging pain disorders, including chronic back and neck pain, fibromyalgia, CRPS, trigeminal neuralgia, and neuropathic pain.

Overall, Ketamine shows extreme promise in treating various forms of chronic pain, and we are excited to see more research in this space that seeks to compare Ketamine's efficacy to traditional pain-relieving modalities.

To learn more, please call us at **949-503-1414**.



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