



Ketamine advocacy network

<http://www.ketamineadvocacynetwork.org/> Introduction to Ketamine Therapy

CHRONIC RELENTLESS PAIN, Major Depressive Disorder, Bipolar Disorder, and Post-traumatic Stress Disorder (PTSD) are among the most painful experiences a human being can endure – so painful, in fact, that each year over one million people choose suicide rather than suffering one more day with these conditions. The general public often thinks wrongly of these conditions as purely emotional, but sufferers endure serious and debilitating physical symptoms that impede their ability to function normally, in addition to the emotional pain amplified by those symptoms. People with the very worst cases do not respond to standard treatments. For them, CHRONIC PAIN, depression/bipolar/PTSD is often a life sentence – or a death sentence – but ketamine offers a new source of hope.

- **Route of Administration** Explains why the method used to put ketamine in the body is so important.
- **Cost**
- Explains why the treatment costs what it does, and why it isn't covered by insurance yet.
- **The Infusion Experience**
- Describes the experience of undergoing a ketamine infusion.

- **The Relief Experience**
- Explains the subtle way relief reveals itself and the way it improves function and mood.
- **Getting the Most Out of Treatment**
- Practical tips to help you maximize the benefits of ketamine therapy.
- **Opposition**
- Explains why widespread use of ketamine therapy is opposed by Big Pharma, some ketamine researchers, and many psychiatrists.

This site focuses on extreme cases of pain, depression, bipolar disorder, and PTSD. The word *depression* is casually used to describe any kind of low mood, but on this site it always means treatment-resistant major depressive disorder and is not meant to cover situational or temporary depression caused, for example, by a failing marriage or a toxic work environment. Anywhere on this site where we say *patients like us*, we mean patients with treatment-resistant major depression or bipolar or PTSD – grave medical conditions unresponsive to medication or therapy and involving years of intense suffering and extreme physical symptoms that dramatically impair one’s ability to function.

It is [patients like us](#) who founded the Ketamine Advocacy Network and created this website.

For the past 15 years researchers have known that tiny doses of ketamine can rapidly relieve depression symptoms and pain symptoms when delivered via slow

intravenous infusion. The first research paper about this discovery was published by Yale in 2000. Since then, dozens more studies have been conducted by Yale university and other major institutions, including the National Institutes of Health, the Veterans Administration, Harvard, Johns Hopkins, Mount Sinai Medical School, Oxford University, and more. The original findings have been reconfirmed many times. Studies to date have focused on the worst-of-the-worst cases. These are treatment-resistant patients who have suffered for years or decades, often since childhood. They have tried SSRIs, mood stabilizers, and many other medications with no success. Most have also tried standard therapies like psychological counseling or CBT, as well as alternative treatments like acupuncture, with little to no benefit. Among these extreme cases, an astonishing 70% experience rapid relief after a small IV infusion of ketamine.

If you've suffered for years and given up hope of ever finding relief, ketamine can sound too good to be true. But the number of patients receiving ketamine therapy (and the number of doctors who offer it) is growing rapidly. Today, more than 15 years after the breakthrough discovery at Yale, the treatment is finally starting to reach the patients who need it most. But what does it mean when ketamine "works?" What does it feel like? Does it relieve physical symptoms, or emotional ones, or

both?

Will you instantly become the person you always wanted to be?

Is it a permanent cure?

Are there risks?

Those are big questions that can't be answered adequately on a single web page. In the forums and throughout this site, you'll find info about these questions from patients who have actually been there, and findings from the foremost ketamine researchers. For the remainder of this intro, we'll stick to the most important headlines you need to get you started.

Ketamine Headlines for Newcomers

Ketamine works in a completely different way from any med you've ever taken for depression, bipolar, PTSD, or anxiety.

Most medications prescribed for Chronic pain and major depression work by manipulating the quantity of certain neurotransmitters in your brain, and their side-effects can be miserable.

Ketamine works differently: it briefly blocks a certain type of receptor in the brain from being triggered. This blockade only occurs during the treatment, while you are actually connected to the IV. Afterwards, the [acute effects](#) of the infusion dissipate within minutes, and any lingering side-effects like fatigue rarely last more than a few hours.

We don't completely understand yet exactly how ketamine relieves symptoms, but we have a pretty

good idea.

When ketamine is administered via slow infusion, unique conditions are created in the brain which trigger a delicate cascade of events. This cascade affects certain receptors and signaling pathways, and produces a protein that triggers rapid growth of neural connections.

Researchers suspect this “rewiring” or “Rebooting” is part of pain relief and antidepressant effect. Ketamine is also a powerful **anti-inflammatory agent**, and since pain and depression is highly correlated with chronic inflammation, this may also be part of the antidepressant effect. There may well be other factors that haven’t been identified yet.

Ketamine is not a one-time, permanent cure but it has the potential for lasting relief.

For most patients who respond to ketamine, the symptomatic relief will begin to diminish eventually.

Duration varies from patient to patient.

In general, a series of multiple infusions provides longer lasting relief than a single infusion, and younger patients tend to get longer relief than older ones. For patients who relapse, getting additional infusions can often restore the relief. Only a few hundred patients so far have been treated longer than one year, which is a tiny fraction of the world’s 350 million sufferers, and we don’t yet know if the infusions can be repeated indefinitely with sustained effect.

Many patients find that during the initial period of relief they are suddenly able to break out of **persistent PAIN** negative behaviors and thought loops, and achieve massive emotional healing rapidly, so that even if the physical symptoms of pain and depression return they are much better able to handle it than before – even if they don't get ongoing infusions. This period can enable them to make **lasting behavioral changes** that were previously impossible, and to get real value out of talk therapy even after years of futility.

The Pain relief and antidepressant effect depends on administering the ketamine in a unique and precise way.

The **route of administration** (ROA) is extremely important. The delicate cascade of events described above is triggered only when precise conditions are created in the brain. A slow IV (intravenous into the blood stream) infusion creates these conditions. It allows the ketamine to travel directly to the brain *at a controlled rate, without being metabolized by the internal organs*. Other ROAs – nasal, oral, injection – cannot deliver ketamine to the brain in this manner. They may help some patients, but IV infusion is the **gold standard** of ketamine therapy, and is used in virtually all the published studies.

Ketamine therapy is not covered by insurance.

In the US, the infusion fee charged by most ketamine doctors is a **few hundred dollars**. This is consistent with

similar procedures that involve an IV drip, monitoring of vitals, etc. Examples are hemodialysis, chemotherapy, or infusions for rheumatologic disorders. Insurance covers most of the cost of those other procedures. But ketamine patients must bear the full cost out-of-pocket, which makes it far too expensive for many who need it. Many lifelong sufferers are unemployed or underemployed, and simply can't afford the treatment. The lack of insurance coverage is the single greatest obstacle preventing widespread adoption.

Ketamine is not FDA approved for treatment of depression. This is the reason insurance won't cover it.

Ketamine has been FDA approved as an anesthetic for 50 years and is used in virtually every operating room in the world. It's on the World Health Organization's [List of Essential Medicines](#), and doctors around the world have extensive clinical experience with it. But today's FDA is designed to approve brand new drugs, not to re-examine old ones. So getting an *old* drug approved for a *new* use is virtually impossible because the FDA requires extensive trials, and they are enormously expensive to conduct.

Pharmaceutical companies make this investment for new, patented drugs in order to turn them into moneymakers that will recover the cost of the trials, and then some. But ketamine's patent expired long ago. It is inexpensive to manufacture and is sold generically. As a result, pharmaceutical companies could not [earn much profit](#) from ketamine even if demand were to soar. Although ketamine can relieve immense human suffering, no one is

interested in footing the bill to conduct FDA trials. Luckily, doctors in the U.S. are permitted to use it off label.

There is strong opposition to the widespread use of ketamine for depression.

Ketamine therapy represents massive change on several fronts, and change is always met with resistance. Some of it is due to simple inertia. But much of the opposition is due to the fact that huge sums of money are at stake. As patients, we care about easing our suffering, not about who will get rich (or not) because of ketamine. We've dedicated a portion of this website to help you [understand the opposition](#).

www.ketamineadvocacynetwork.com



If businesses could set prices based solely on the cost of their consumable raw materials, lawn mowing would cost \$1 for gas, an Armani suit would cost \$50 for fabric, haircuts and psychotherapy would be free, and a ketamine infusion would cost \$30-60. For patients like us ketamine can be a matter of life and death, so we wish the world worked that way – but it doesn't.

How much does ketamine therapy cost?

In the US, doctors typically charge **\$400-800** per infusion. That's a lot of money, but it's consistent with the cost of similar procedures. Unfortunately, insurance doesn't cover ketamine therapy, so the patient must bear the full cost. That's a serious problem since many lifelong sufferers are unable to work. A great many simply don't

have the means to afford the treatment.

The first reaction of many prospective patients is that **\$400-800** is exorbitantly high. But compare it to other outpatient treatments that require establishing an IV drip, vitals monitoring, etc. For example, hemodialysis or chemotherapy infusions. They also cost hundreds of dollars per treatment. But patients are rarely on the hook for the full amount thanks to insurance.

In our opinion, lack of coverage is a much more serious problem than pricing. But patients still need to understand the cost. We'll try to explain.

In our case we also use adjuvant medications like propofol, diazepam and cocktail of Vitamins, minerals, antioxidants to get the best results without sideeffects.

Why is the cost so high? Is it greed?

Ketamine itself is cheap. The amount used in a typical infusion for pain and depression costs less than \$10. But consider the other costs the doctor must cover:

- nursing salaries
- admin salaries
- rent
- malpractice insurance
- infusion pumps
- cardiac monitors
- IV supplies
- legal fees
- professional dues
- marketing/website
- med school loans
- and more...

These expenses must be covered before the doctor draws a salary. It costs a lot of money to operate a ketamine clinic, but the drug itself is only a trivial portion of the total.

Fees above the norm: We are aware of some doctors in affluent areas who charge up to \$2000 per 40-minute infusion. We do not include them in our directory. These doctors may earn a handsome living treating a few wealthy depressed patients, and we wish them and their patients every success. But lifelong sufferers are often unemployed, unable to work, and destitute. So doctors with very high fees are unable to help the vast majority of patients like us. It's simply wrong to assume a doctor who charges a few hundred dollars per infusion is motivated by greed. It takes real courage to offer ketamine therapy in the [face of resistance](#) from the medical community, big Pharma companies and elsewhere. Some ketamine providers have been deeply affected by depression in their own families, and they understand how powerful the suffering is. But no one can afford to operate at a loss. True, there may be some ketamine providers who are interested only in padding their bank accounts. We don't spend time worrying about them, because there's now a good selection of clinics across the US whose fees fall within the usual range, and their numbers are growing.

A ketamine clinic has to operate in the black, and you can analyze it just like any other business. Keep in mind each doctor can treat only a small number of patients per day due to the nature of the treatment. The infusion portion of each appointment lasts 40-60 minutes during which time the doctor must constantly monitor the patient. But the total appointment time can be two hours or more when you include pre-infusion consultation, prep, and post-infusion recovery. So it's a low-volume business.

It's easy to build a P&L spreadsheet for a ketamine clinic. Given the high operating costs and the small volume of patients per day, you can see that \$400-800 per infusion doesn't allow doctors to pay themselves colossal salaries. Ketamine doctors who charge within this range are not going to get rich. Anesthesiologists can make far more money doing surgeries and other procedures instead of ketamine therapy. Many of the pioneering doctors who run today's clinics are giving up sizeable paychecks elsewhere in favor of helping patients like us

Why doesn't insurance cover it?

Insurance doesn't cover ketamine therapy because it's not FDA-approved for use on depression. In order to obtain approval, the FDA requires extensive trials that are hugely expensive, costing billions of dollars. No one is willing to fund these trials, because the cost can never be recovered. Ketamine is a cheap generic drug that produces only a small profit margin for manufacturers. FDA approval won't change those economics. Since ketamine can't produce blockbuster profits, no for-profit corporation is going to invest billions in FDA trials.

But there is reason for hope. Sometimes a carrier will cover alternative treatments that are not FDA-approved. This happens when the carrier can make more money by covering it than by denying it. Ketamine might prove to be one such case.

Consider a lifelong treatment-resistant pain & depression sufferer (or bipolar, PTSD, etc) who has been treated for years without success. Each year their insurance pays for \$1000s in psychotropic drugs that don't help. And perhaps tens of \$1000s for psychotherapy or counseling sessions that don't help. But suppose this patient responds to ketamine therapy. Based on actual results we've seen from fellow patients, it's possible that much of the never-ending, ineffective treatments could be replaced with a handful of ketamine infusions each year. In addition to the obvious benefit to the patient, this could provide the insurance carrier with enormous savings. Once carriers recognize this potential, it's possible some of them might begin to cover ketamine therapy on an exception basis, which could eventually lead to broad coverage.

KETAMINE FOR CHRONIC PAIN

Description:

Intravenous (IV) Ketamine infusions involve the release of Ketamine into the bloodstream. This treatment is done in-clinic, under the constant monitor of nurses and/or doctors. It can be useful in the treatment of certain pain disorders, where other more conventional treatments have failed. The ketamine is also combined with low dose of 100 mg of lidocaine (local anesthetic) which potentiates the pain relieving properties. The IV infusion is preceded by oral anti anxiety medication like lorazepam to decrease the side effects of Ketamine like hallucinations.

How it works:

Ketamine is an NMDA receptor antagonist that is used for both anaesthetic and sedative properties, including pain control. There is evidence that NMDA receptors are involved when patients build up a

tolerance to narcotics, and in conditions where a person develops hypersensitivity or hyperalgesia (increased abnormal pain responses). In some cases patients may develop a pain response to light touch, water, a breeze, clothing, or other sensations that are typically not experienced as being painful. Ketamine may block the receptors involved in these conditions, thereby reversing the symptoms. In short, Ketamine may play a role in blocking the nerve channels that cause intense abnormal pain sensations, while still allowing the nerve to function normally. After infusion, these heightened painful sensations may disappear for a period of time.

Conditions Treated:

A number of conditions may be treated using IV ketamine infusion including neuropathic pain, complex regional pain syndrome (reflex sympathetic dystrophy), centralized pain, hyperalgesia (extreme, exaggerated reaction to a stimulus, like a pinch, which is normally only somewhat painful), allodynia (feeling pain from a stimulus, like touch or temperature, which does not normally cause pain), or intense widespread pain. Ketamine may be a good option if traditional approaches including physical therapies, opioids/medications, or standard clinical interventions have not been successful in reducing the pain on a sustained basis.

If your doctor thinks you may be a candidate for this treatment, he or she will discuss this with you.

Who should not have IV ketamine infusions?

People who should not have this treatment include those with allergies to ketamine, uncontrolled seizures, hyperthyroidism, glaucoma, certain heart conditions, severe liver or kidney disease.

To be approved for an IV ketamine infusion at IPCA (Interative Pain Centers of America, please **contact us** to book a specific IV ketamine consult with the pain specialist-anesthesiologist. Lab tests and ECG will be also be needed to ensure this therapy is appropriate for you.

Due to safety reasons, certain patients should seek IV ketamine infusions in a hospital setting instead of at IPCA. We cannot give IV ketamine infusions to anyone that:

- Weighs over 250 pounds
- Is pregnant
- Is unable to walk and don't have care taker

- Is unable to communicate in English (unless there is an interpreter available throughout the procedure and home recovery period)
- Does not have a support person to take them home from the clinic or care for them at home.

Clinicians Involved:

- Anesthesiologist who has a formal appointment to practice
- Registered Nurses with Critical Care training

Time commitment:

You will be monitored in our Infusion Room while receiving low dose sub-anesthetic infusion for about an hour or more. While single day infusions can show pain relief, studies have shown that longer duration of relief comes from infusions that take place over 4 to 10 days in a row. For some conditions, one series of several days is sufficient to resolve the pain. For others, some may need booster infusions of shorter duration (1-2 days).

Fees:

Insurance does not pay for IV Ketamine and other medications in the infusions. Insurance may pay intravenous fluids but not medications, vitamins, minerals, antioxidants This is a private pay service.

Infusion Procedure:

Patients must have a 12 lead heart tracing (ECG) taken before in the past 6 months and not have any irregular heart rhythm. This will be monitored in-clinic.

The infusion is delivered into the bloodstream via a catheter in the arm or hand. Two nurses or one nurse and a pain specialist physician will monitor vital signs for the entire duration of the infusion.

What to expect after the infusion:

Some patients will feel like their pain is gone or considerably decreased after the infusion is complete. This may last for several hours up to several weeks.

You must not drive after the infusion.

You must be sure to have someone readily available and making regular contact for 24 hours post infusion.

Will it hurt?

The infusion itself does not cause pain, though some patient will experience discomfort with the insertion of the catheter.

Will I be “put out” for the procedure?

No. You will be awake for the duration of the infusion. We recommend bringing books/magazines to your infusion, so you will have something to do. If desired, you may also bring your own pillow/blanket.

What are the risks?

As with most medical procedures, there are some risks. Mild side effects include dysphoria, vivid dreams, light-headedness, nausea, confusion, dizziness, or hypertension. Severe risks include arrhythmias (abnormal heart activity), seizures, or cardiac arrest. These are very rare risks.

I have anxiety. Will the infusion make it worse?

Not usually. The main concern is the risk of “out of body experience” or hallucinations. We usually give you an anxiety reducing medication before the infusion day starts. Most patients do not need this medication for repeat infusions if these are needed.

How often does the procedure need to be repeated?

Ketamine infusions for pain treatment are still being actively being studied in the scientific community. There is however growing experience with this medication by pain specialists that their effectiveness in stopping or reducing pain occurs early after injury and also when all other traditional medications and procedures have been tried.

An infusion can sometimes be extremely effective in controlling pain and making other medications, especially strong analgesics, more effective and help decrease dependence on these strong analgesics for long term pain management Ongoing studies regarding optimal dosing in various pain syndromes are needed before standardized treatment recommendations become available.

Studies show that one treatment is effective if done within 3 months from onset of symptoms. If treating chronic pain of more than 3 months, treatment of several days in a row, and/or booster treatments may be needed.

