Alchemy

Ketamine Assisted Therapy Information

This document contains important information about our Ketamine Assisted Therapy (KAT) program, as well as about ketamine itself. Please read it carefully and ask any questions about the information it contains before you decide to participate in KAT. It is very important to us that you feel safe and respected throughout this process, and to address any concerns you might have.

What is Ketamine?

Ketamine is a synthetic pharmaceutical compound, classified as a dissociative anesthetic. It is one of the most widely used drugs in modern medicine, and is on the World Health Organization's List of Essential Medicines. It was developed in 1963, FDA approved in 1970, and adopted by many hospitals and medical offices because of its rapid onset, proven safety, and short duration of action.

Ketamine is most commonly used in surgical settings, including pediatric surgery, due to its excellent safety profile, particularly around breathing/airway management. It has also been utilized successfully in managing acute and chronic pain conditions due to its analgesic properties.

In the last two decades, ketamine has been increasingly clinically applied at subanesthetic doses as an off-label treatment for various chronic and treatment-resistant mental health conditions, such as depression, substance use disorder, post-traumatic stress disorder, anxiety disorders, and other psychiatric diagnoses.

How Ketamine Works

As mentioned, ketamine is classified as a dissociative anesthetic, where "dissociation" means a sense of detachment from one's body, environment, ordinary reality, and usual sense of self.

The present understanding of ketamine's mode of action is as an NMDA antagonist working through the glutamate neurotransmitter system, as well as an opioid receptor agonist.

In depression, the spindly receptors on neurons that facilitate signal transmission may recede, and the amygdala and hippocampus (both of which help govern mood) may shrink. Animal research has shown that ketamine can stimulate neural growth within days (and sometimes hours). One hypothesis is that there is similar action in humans.

Another hypothesis is that ketamine affords a reprieve from habitual patterns of thought that underlie mood and behavior, thereby creating an opportunity for learning new and healthier patterns of thought. There is no current consensus on mode of action, and other mechanisms may be found central to ketamine's effects.

Dosing Strategies and Route of Administration

Ketamine can be administered in a variety of ways, including as an intravenous infusion (IV), intramuscular injection (IM), a subcutaneous injection (SC), intranasally, or sublingually/orally as a dissolving troche or tablet. Routes vary in the onset, bioavailability and duration of active effects for each person. At Alchemy, we only use lozenges, suppositories, or nasal spray for treatment.

Though research has demonstrated an antidepressant response to low doses that are minimally psychoactive or sub-psychedelic, this effect tends to be cumulative, requiring repeated administrations over short periods of time. Some practitioners view the psychedelic and dissociative experiences that occur at higher doses to provide a more robust and longer-lasting outcome.

Though experiences vary greatly, it is generally thought that lower doses provide empathogen-like (heart-opening) responses, while higher doses can induce dissociative, psychedelic, out-of-body, and sometimes ego-dissolving peak experiences.

In our practice, ketamine is administered by sublingual (oral) dissolving tablets, a strategy which may allow for psychotherapy during the treatment, and an easier experience for those who are hesitant about injections. We use a range of dosing strategies to create a personalized approach for each client, adjusting the dose, frequency, and time in between sessions based on each individual's needs.

The choice of dose depends on multiple factors, including client preference, therapeutic goals, prior exposure to ketamine and other psychedelics, and sensitivity. Clients start off in an initial session using a 100mg lozenge or less to assess for sensitivity and build familiarity with ketamine's effects.

The Ketamine Experience

The ketamine experience is oftentimes characterized by the relaxation of ordinary concerns and usual mindset. This tends to lead to a disruption of negative feelings and preoccupations. Some ketamine providers feel that this interruption, and the exploration of other possible states of consciousness, can lead to significant shifts in overall well-being.

At lower doses, you will most likely experience mild anesthetic, anxiolytic, antidepressant, and psychoactive effects. You might experience increased sensitivity to light and sound, as well as an altered sense of time. Some people experience empathogenic (similar to MDMA)

effects in this dose range. This state may also enhance participation in psychotherapy, as defenses are relaxed, yet communication with others is still possible.

Higher doses are more likely to produce psychedelic, dissociative states that are largely internal journeys away from the external world. Body sensations are greatly diminished. Such journeys may provide a more robust treatment effect, often assisting in the resolution of existential concerns, accelerating psychological and (and possibly spiritual) growth, and promoting a positive change in outlook and character that we refer to as a transformative response.

Sensory effects of ketamine may include distorted visualization of colors, feeling suspended in space or floating, experiencing out-of-body sensations, vivid imagery, and changes in visual, tactile and and auditory processing. Synesthesia (a mingling of the senses) may occur. Familiar music may not be recognizable. An ordinary sense of time may morph into time dilation.

Some people report transpersonal experiences, which they perceive as bizarre or frightening, while others describe them as pleasurable, joyful, or fascinating. We have found that even frightening experiences can be of great value to your recovery process. Our team is trained in providing stability for those experiencing extreme states, and you will receive psychotherapeutic help and ongoing guidance as to how to make the best use of these experiences.

The effects of ketamine typically start 5 to 10 minutes after ketamine dosing. The peak effects typically last 20 to 30 minutes, and then slowly diminish for the next hour. Some alterations in sensory perception, speech, and motor ability may continue for approximately 5 hours.

Two to three hours after ketamine administration, clients can return home with another driver. Driving an automobile or engaging in hazardous activities should not be undertaken on the day of the administration, and not until all effects have stopped.

Why Ketamine Assisted Therapy (KAT)?

The administration of ketamine is often most effective when paired with psychotherapy. We offer a psychotherapy program that will prepare you for your ketamine sessions, encourage you to explore your mind while within the ketamine space, and assist you in integrating your experiences afterwards.

This program emphasizes the potential for change, and such change is best facilitated within a structured, supportive psychotherapeutic environment with providers who are aware of your issues, hopes, desires, and struggles.

Ketamine has the potential to create a non-ordinary state of consciousness, facilitating a profound transpersonal or mystical peak experience. These sorts of peak experiences have been shown to expand one's sense of self and understanding of existence, and may enable

you to access your own healing wisdom. Your providers will assist in processing the experience and its impact on your everyday life.

Ketamine's altered state can create conditions of relational and psychological openness, and thus we believe that trust in your providers enables the deepest possible work to occur. Psychotherapy sessions are meant to build a sense of connection and trust between you and your providers.

Many have found it beneficial to set an intention for the experience. Intentions can be personal and focused, which could include getting curious about specific habits, noticing self-defeating patterns of thought or social interactions, or exploring your relationship to spirituality/existential realms. Your therapist will work with you to formulate your goals, and will also encourage you to hold those lightly, as resistance or attempts to control the experience can produce anxiety.

Your experience will be unique to you, and each of your sessions will be different. All such journeys are adventures that cannot be programmed. They evolve from your own being in relation to this medicine, and it is best to relax into the path that unfolds. Many enjoy the journey, while others do not. Everyone comes through it, and often with greater insight into themselves and their lives. Our therapy program is designed to assist you in integrating these insights into your daily functioning.

As a byproduct of your experience, you may feel improvement in your emotional state and reduction in symptoms such as depression, anxiety, and post-traumatic manifestations. You may notice that you are a bit different after a ketamine experience, and that difference may feel liberating, allowing for new perspectives and behavior.

These shifts may happen during treatment, in the aftermath, and/or in the days and weeks that follow. Some experiences may be temporarily disturbing to you, and we will work to help you understand these in context of your healing process. Ultimately, we are working to assist you in changing patterns of mind, mood, and behavior that cause you difficulty and distress. This is a unique opportunity for growth and change, and so we encourage you to actively engage in the therapeutic process as well as the medication administration. While medication on its own provides symptom relief, it is most effective in the longterm when combined with therapy and your active participation in the process of integration.

Our Treatment Process

Preparatory Sessions

Our treatment team consists of trained therapist interns, their licensed supervisors, and a psychiatric prescriber. You will meet with your therapist for a minimum of three sessions before your first ketamine administration. If you are in ongoing psychotherapy outside of Alchemy, we will be in close contact with your outside therapist.

As a team, we will assess whether KAT is the right intervention for you at this time. We will also collaboratively decide on the most optimal arc for your treatment, including the number and frequency of ketamine and integration sessions, along with dosing suggestions.

In the first meeting, you will meet with our prescriber for a clinical intake, during which she will review your medical history, including current and past medical and psychiatric problems, current and recent medications, previous treatments, social history, and history of substance use. They may collect vital signs including blood pressure, pulse, respiratory rate, and oxygen saturation, which they may be able to obtain from previous medical records if the meeting is virtual.

You will have *at least* three preparatory sessions with a therapist, during which you will start reflecting on your treatment goals, setting intentions for your experience, and collaboratively continuing to assess if ketamine is the right fit for you at this time. Your therapist may also teach breathing exercises or other mindfulness meditation guidance to address any anxiety you might have going into the experience. The preparatory meetings are meant to build a sense of connection between you and your therapist, as we believe that the efficacy of this medication is largely enhanced by a safe setting in the context of trusting relationships.

Your therapist will also discuss the use of music during the ketamine experience. People often find music helpful, as it grounds them and gives them something familiar to hold onto, and can potentially enhance or support the experience.

Day of KAT

On the day of your ketamine administration, it is very important to follow the directions given by the psychiatric prescriber about medication intake, as well as the KAT Preparation and Aftercare Guide tips.

You and your therapist will take some time when you arrive to discuss your current state, bring up the intentions you were considering, and reviewing the day ahead. You can choose to take some time to set up the room in a comfortable way, perform a small ritual (if that fits with your desires), create an altar of objects that reflect your intention, and/or do anything else that helps you show up in a present way.

For sublingual dosing, you will begin treatment with 100mg or less of a lozenge. It will dissolve slowly, and as the ketamine is being absorbed through the lining of your mouth, you will be asked not to swallow your saliva for 15 minutes. (It is safe to swallow ketamine, although it may not be absorbed as well if you do so, resulting in less bioavailable medicine.)

The first dose will give us a measure of your responsiveness to ketamine, and enable us to witness the effectiveness of the lozenges and adjust the dose if needed. Some people experience empathogenic effects in this dose range, and engaging in therapeutic exploration can be quite fruitful. Others find speaking too difficult and prefer an internal focus even at this lower dose. Your preferences for engagement will be respected.

After about 30 minutes, you may decide to take a “booster” dose of 100mg or less, if you feel like you want to extend the experience and deepen into the feeling more. Each sublingual dose provides a peak effect of approximately 20 minutes.

Throughout the ketamine session, your therapist will be present to support you emotionally, logistically (note-taking, music, timing, etc), and with physical safety. You’ll be offered an eye mask to facilitate and enhance the experience, and to help you maintain an internal focus if desired.

Some people are talkative, but many find it beneficial to just stay with that internal focus, as forming words can be challenging while under the influence. You are welcome to share whatever you like, but there is no pressure to narrate your journey. Your therapist can take notes of content you do choose to narrate, as it may be relevant to discuss during integration of the experience. You will have the opportunity to share once the effect of the medicine subsides.

Your provider will reconnect with you as you return from the most active phase of your journey, and are ready and willing to communicate with the outside world. The moments following an altered state can be exquisitely poignant and powerful in their ability to evoke and reshape how we attach to others, and your providers regard this opportunity with the importance it deserves.

You will be welcomed to share about your experience and discuss any insights or alternative perspectives that you discovered; however, some choose to contemplate their experience quietly and discuss at a later integration session. Whatever decision you make in these moments will be respected.

Each KAT session typically lasts 3 hours. For in-person sessions, please arrange for some trusted person to pick you up and take you home. We ask that you not drive at all on the day of your administration.

It is best practice to schedule an integration session within 48hrs of your KAT session, although we understand that’s not always a possibility. We ask that you contact your provider within that amount of time to touch base and make sure things are integrating smoothly. We do require a follow-up integration session within one week of the KAT session to ensure you’re getting enough support with the material that may have come up.

Virtual KAT

Due to the COVID-19 pandemic, Alchemy is offering virtual Ketamine-Assisted Therapy (KAT) treatment when appropriate. Below is information to help you prepare and engage in virtual KAT sessions with your therapist.

Prior to your first virtual KAT session, you will engage in at least three preparation sessions (sometimes more) where you and your therapist will discuss whether virtual KAT sessions are an appropriate option for you, and prepare you for the session(s), including creating a

plan for remaining safe. Your therapist will collaborate with your psychiatric prescriber prior to moving forward.

You will be asked to review the materials provided to you (Ketamine Assisted Therapy Information, KAT Preparation, and Aftercare Guide, and KAT Integration Tips) prior to your first virtual KAT session so your therapist can answer any questions you may have.

Prior to each virtual KAT session, you must identify a support person who can be available during the session should you need additional support (in the case of emergencies, 911 will also be called). You must agree to sign a release of information for this person prior to your session so your therapist can make contact with this person prior to and, if necessary, during your session. It is preferred if this person is in the home at the time of your session, but if this is not possible, this person must be within a 15-minute drive from your location for the duration of the session and accessible by phone during your session.

Your therapist will provide guidance on setting up a place in your home that will support your experience, including creating a comfortable and quiet place to lay down, using eye shades, and setting up and navigating technology (i.e. music, using headphones, and using the video platform). Your therapist will also review safety protocols about going to the bathroom and the therapist's responsibilities regarding when it is appropriate to contact your support person and/or emergency services.

If you have a recent history of high blood pressure, your psychiatric prescriber may require you to get a blood pressure reading prior to your virtual KAT session(s). Your session may need to be postponed until you can see your doctor to treat any issues associated with your blood pressure.

When Will I See Positive Effects, and How Long Will They Last?

Ketamine treatment can result in a number of benefits, and there are now many studies demonstrating its efficacy; however, it is still a relatively new and experimental psychiatric intervention, and there are no guarantees of your outcome.

Ketamine is distinguished from other psychotropic medications by its rapid onset, often producing relief in as soon as a few hours. The literature indicates a 70% initial response rate to ketamine, as well as a remission rate (return of symptoms) for people with treatment-resistant depression of 40-50%.

Durable improvement generally occurs with more than one administration, and is most robust when part of an overall treatment program. It may not permanently relieve your condition. If your symptoms respond to ketamine, you may still elect to be treated with other medications and ongoing psychotherapy to reduce the possibility of relapse. Over time, you may also need additional ketamine administrations or other therapies to maintain your remission.

If you do not respond to ketamine after the first administration, repeated treatment may be offered. If you do not respond after a series of 8 dosings, additional ketamine will not be offered. Studies have shown it is not effective to keep treating with ketamine in those who do not respond to the first 8 doses. The treatment team will discuss with you other available options at that time.

Although a course of ketamine treatment typically provides only a few months of benefit, repeated treatments have been shown to have a cumulative effect, prolonging mood improvements, and current research is focused on how to sustain these benefits with an optimal dosing schedule and integration of psychotherapy.

****This can be an effective medicine, and it is even more so when you work with it to create positive changes in your life that can sustain your recovery. For guidance on getting the most benefit out of your treatment, we offer a collection of Integration Tips to assist you in bringing insights gained during your journey into your life.****

Medical and Psychiatric Eligibility for KAT

Before participating, you will be carefully interviewed to determine if you are a good candidate for ketamine treatment. This will include discussing your medical and psychiatric history, and review of your medical and psychiatric records if necessary.

You are required to be under the care of a primary care physician to evaluate your overall health, and in particular your respiratory and cardiovascular status. You are also required to be under the care of a mental health provider at Alchemy.

Some medical and psychiatric conditions need to be treated before you can safely take ketamine. These conditions include hallucinations, untreated mania, unstable angina (chest pain/heart disease), uncontrolled hyperthyroidism, increased intracranial pressure, or evidence of liver disease. A previously demonstrated allergy to ketamine excludes one from treatment.

An EKG may be required for those with a history of arrhythmia or a history of cardiovascular issues. Untreated or uncontrolled hypertension is a contraindication to ketamine use, as the substance causes a rise in blood pressure. This increase is typically comparable to normal increases in blood pressure that occur with heavy exercise.

Pregnant and nursing people are not eligible because of undetermined potential effects on the fetus or nursing child.

Those with a history of cystitis or other bladder issues may need to be cleared by urological consultation, due to the rare but potentially significant adverse effect of cystitis.

Those with a primary psychotic or dissociative disorder or who are currently in a manic or mixed episode are not eligible for treatment with ketamine. Please consult your psychiatric

prescriber if you are taking Lamotrigine (Lamictal) or an anxiety medication such as benzodiazepines, pregabalin, or gabapentin as they may blunt the antidepressant effects of ketamine.

Information on ketamine's interaction with other medicines is only partially available; any possible interactions will be assessed to help determine your eligibility for ketamine treatment.

Potential Risks of Ketamine

Any time anyone has a controlled substance prescribed to them, it is listed in CURES (California's Prescription Drug Monitoring Program) to prevent patients from misusing prescriptions and "doctor shopping." To the best of our knowledge, medical insurance companies do not typically check the CURES database, but it's possible they may have access to it. While we have not yet heard of a case where medical insurance companies have used the contents of CURES against someone, it's important to weigh out the potential (albeit unknown) risk of an insurance company seeing a pre-existing condition on your medical record.

Ketamine has an extensive record of physiological safety and has been used at much higher doses for surgical anesthesia, without respiratory depression. As with any other medication, there are also some potential risks and side effects to be informed of and consider.

The most common physical side effect is a short-term spike in blood pressure, pulse, or heart rate, which may be a risk to those with heart disease, and can be misinterpreted as a symptom of anxiety.

Other possible side effects include dizziness/lightheadedness, sedation, impaired balance and coordination, slurred speech, mental confusion, excitability, diminished ability to see things that are actually present, diminished ability to hear or to feel objects accurately including one's own body, headache, anxiety, nausea, vomiting, and diminished awareness of physical functions such as respiration. These effects are transient and resolve as the active phase of the medication ends (generally within 4 hours).

Repeated, high dose, chronic use of ketamine has caused urinary tract symptoms and even permanent bladder dysfunction or cystitis in individuals using the drug too frequently. These adverse effects are much less likely in medically supervised ketamine treatment populations, but might include more frequent, painful, or difficult urination. Please inform your providers immediately if you notice any of these side effects.

In terms of psychological risk, it's important for you to weigh out the risks and benefits of stepping into this work with your therapist. Ketamine has been shown to worsen certain psychotic symptoms in people who suffer from schizophrenia or other serious mental disorders. It may also worsen underlying psychological problems in people with severe

personality disorders and dissociative disorders. However, ketamine assisted therapy can also bring to light challenging dynamics, painful feelings, or repressed experiences.

This can be particularly true for people who have survived traumas, especially if they experience symptoms of dissociation regularly. In some cases, ketamine's dissociative quality can be dysregulating to clients' protective systems, activating a "backlash" in defenses. This can look like symptoms intensifying after experiencing a bit of relief, devaluing the experience, experiencing lasting dissociative symptoms (sometimes up to 1 week), extreme confusion, feeling of suicidality, flashbacks, uncomfortable/unusual somatic sensations (i.e. shaking), and more. Although these intensive negative side effects are rare, they are possible. Clients are encouraged to make space before and after KAT sessions to prep and integrate. Having a support system of friends, family, professionals, and community members to lean on when possible can support in making this work safer. Our clinicians prioritize safety, working collaboratively with each client to help define what that looks like for them.

Management of Adverse Effects

Our setting and our client instructions (see KAT Preparation and Aftercare Guide for details) are intended to minimize ketamine's adverse side effects as much as possible.

It is recommended to avoid eating at least 4 hours prior to your treatment and drinking liquids at least 2 hours prior to avoid nausea or vomiting. Additionally, due to possible blurred and altered vision, we advise keeping your eyes closed or using the eye mask provided (as long as you are comfortable doing so) until the main effects have worn off. Excessive movement can exacerbate nausea and dizziness, so it is best to lie still during the active phase while balance and coordination are impaired.

Driving an automobile or engaging in hazardous activities should not be undertaken on the day of the administration, and not until all effects have stopped. You will be assessed for safety prior to leaving the office premises, and will be required to arrange for a responsible person to drive you home from the ketamine sessions.

We reserve the right to activate emergency response systems (such as calling 9-1-1) if it is determined by clinical judgment that your safety requires a higher level of care than can be provided in our setting.

Potential for Ketamine Physical Dependence

Ketamine belongs to the same group of chemicals as phencyclidine (PCP, "Angel dust"). This group of chemical compounds is known chemically as arylcyclohexylamines and are classified as hallucinogens (also known as psychedelics). Ketamine is a controlled substance and is subject to Schedule III rules under the Controlled Substance Act of 1970. Medical evidence regarding the issue of drug misuse and dependence suggests that

ketamine's misuse potential is equivalent to that of phencyclidine and other hallucinogenic substances. Phencyclidine and other hallucinogenic compounds do not meet criteria for chemical dependence since they do not cause tolerance and withdrawal symptoms.

However, ketamine's dissociative qualities and short-lasting effects may lead to problematic use by people who start to rely on it too heavily and too frequently as a tool, without a supportive structure in place to help with integration. At Alchemy, our prescriber only prescribes ketamine lozenges to be used under the supervision of a therapist, highlighting the importance of integration and intentional use.

We work within a harm reduction model, supporting clients in exploring their relationship to substances from a non-judgmental and curious place, and always encourage clients to share thoughts, feelings, excitements, and concerns related to any substance use. Through this lens, we find that clients are able to build a positive, effective relationship with ketamine, and tend to not struggle with its use when held in a therapeutic container.

Alternative Procedures and Treatments

Psychotherapy without ketamine is available and can be effective. Major Depression (MDD), PTSD and Bipolar Disorders are usually treated with antidepressant medications, tranquilizers, mood stabilizers and psychotherapy. PTSD is often also treated with Eye Movement Desensitization and Reprocessing (EMDR). Electroconvulsive therapy (ECT) and the recently introduced Transcranial Magnetic Stimulation (TMS) are also in use for treatment-resistant-depression.

Voluntary Nature of Participation

Your decision to undertake KAT is completely voluntary.

Please ask us any questions you may have concerning the procedure or effects of ketamine at any time. Your consent to receive ketamine may be withdrawn by you, and you may discontinue your participation, at any time up until the actual injection or lozenge has been given.

Additionally, if the Alchemy treatment team decides that moving forward with ketamine therapy is not the right fit at any time for you, our team also holds the right to pause that treatment modality and focus instead on helping you create a sense of safety. Because Alchemy is a training center for unlicensed clinicians, we may sometimes decide to refer cases out if we find they need additional support from licensed providers. We hold our clients' safety at the forefront of our model.