



## **Ketamine and Ketamine-Assisted Psychotherapy (KAP): Patient Information**

### **What is ketamine and how does it work?**

Ketamine is a Schedule III medication that has been used for some time as an anesthetic agent, and in recent years increasingly for mental health purposes. While intranasal esketamine has been FDA approved for treatment-resistant depression, we will be using a different formulation of ketamine **off-label** (in a manner that is not yet FDA approved) for your treatment. While we have found ketamine to be effective for medical and psychotherapeutic use, **we cannot guarantee that you will benefit from ketamine.**

Ketamine is an NMDA receptor antagonist which impacts glutamate, an excitatory chemical in the brain. Ketamine induces a cascade of effects in the brain involving this, and other pathways. We don't have a complete biochemical understanding of why ketamine works as it does to benefit mental health, but we do have a rapidly growing base of clinical data to support its efficacy, and multiple theories.

Ketamine is a dissociative anesthetic and you can expect to experience a sense of disconnection from your ordinary reality and from your usual self. We believe, and some data suggests, that the dissociative experience is an essential mediator of therapeutic gains, as it disrupts the rigidity of one's personality and ordinary psychological defenses.

### **Eligibility for ketamine treatment:**

At your initial visit we will be assessing whether ketamine is medically safe and appropriate for you. The history you provide on the attached forms is part of that process, as well as an in-person interview and mental status examination, assessment of vital signs, focused physical examination as may be necessary, and standardized symptom assessments. Information on ketamine's interactions with other medications will be assessed according to the information we have available.

- Pregnant women and nursing mothers are not eligible for ketamine treatment due to the unknown impact on and potential harm to the fetus or nursing child.
- Uncontrolled elevated blood pressure is a contraindication to ketamine use as the medication can itself lead to a rise in blood pressure. We require your blood pressure to be controlled at a level below 140/90. A history of heart disease may also preclude ketamine use.
- Ketamine should not be taken if you have untreated hyperthyroidism. There have also been some reports of decrease in immune function in patients receiving surgical doses of ketamine.
- Intraocular (eye) pressure can increase. If you have glaucoma or an eye injury, you may not be a candidate for ketamine.

- Intracranial pressure can increase. If you have a brain mass, malformation, or hydrocephalus you may not be a candidate for this treatment.
- Ketamine has an extensive record of safety and has been used at much higher doses for surgical anesthesia, without respiratory depression. However, because tightening of the airway (laryngospasm) is a rare but serious side effect, you may not be eligible if you have an active respiratory infection or a compromised airway.

**Additional potential risks of ketamine treatment:**

- Your sense of balance and coordination will be adversely affected until the drug's effect has worn off—typically within about 3 hours. It is possible you may fall asleep.
- You may have blurred and uncomfortable vision. You will be provided with an eye mask for use during the therapy.
- There is a risk of nausea and vomiting. Because of this, you will be asked not to eat for 4 hours prior to the session. We have anti-nausea medication (ondansetron) available should you experience nausea.
- Ketamine generally causes a significant increase in blood pressure, but not usually heart rate. If monitoring reveals that your blood pressure is too high, you may be given medication to remedy this: magnesium, labetalol, or clonidine. There are also reports of reduction in blood pressure during ketamine administration.
- Agitation may occur during the ketamine session. If needed, you may be offered lorazepam, a sedative-hypnotic, to help you relax.
- Data is mixed on the risk of seizures with ketamine. In patients who have epilepsy, there may be an increased risk. We have lorazepam available, if needed, to abort any seizure activity. Ketamine has not been shown to cause seizures in individuals without epilepsy.
- Ketamine has been shown to worsen certain psychotic symptoms in people who suffer from schizophrenia and other serious psychiatric disorders.
- During the experience itself, some people have frightening and unusual experiences. These are temporary, and can be integrated with the work of psychotherapy.
- Additional potential side effects include saliva production, slurred speech, mental confusion, excitability, anxiety, unusual movements, diminished ability to see things that are actually present, diminished ability to hear or to feel objects accurately including one's own body.
- Visual, tactile, and auditory processing are affected by the drug. Music that may be familiar is not ordinary. Synesthesia (a mingling of the senses) may occur. Ordinary sense of time can be distorted. Visual illusions and hallucinations can occur.

- Additional reactions that have been observed in anesthetic doses of ketamine include: loss of appetite, rapid eye movements (nystagmus), breathing changes or difficulties, and changes in heart rhythm, or rapid heart rate. We will be using doses of about 40% of the anesthetic dose, or less, and expect these reactions to be rare or absent.
- As with any medication, there is a risk of an allergic reaction: rash, hives, itching, red, swollen, blistered, or peeling skin with or without fever, wheezing, tightness in the chest or throat, trouble breathing or talking, unusual hoarseness, or swelling of the mouth, face, lips, tongue, or throat. We have epinephrine and diphenhydramine (Benadryl) available if needed to address any reactions.
- Injection site pain, redness, infection, and/or IV site infiltration can occur.
- Driving or other hazardous activities must be avoided until the effects of the ketamine have worn off. You will need to arrange for a driver to bring you home after you have been medically cleared to return home.

#### **Potential for ketamine abuse, physical dependence, and long-term effects:**

Ketamine belongs to the same group of chemicals as phencyclidine (PCP), classified as hallucinogens or psychedelics. Ketamine is a Schedule III controlled substance and medical evidence suggests that its abuse potential is equivalent to that of other hallucinogenic substances.

Ketamine and other hallucinogens are not widely observed to create physiologic dependence—i.e. tolerance or withdrawal. However, because they cause an alteration in feelings and thought processes, its use can result in cravings, psychological dependence, and the potential for abuse.

Ketamine should not be used except under the strict supervision of a licensed physician.

Repeated, high dose, chronic use of ketamine has caused urinary tract symptoms and even permanent bladder dysfunction in individuals abusing the drug. In a similar population, we have also observed neurotoxicity and permanent changes in the brain. The risk of these effects is far less with medical use, as for our purposes, and we mitigate it by using the minimum effective dose, frequency, and duration of treatment.

#### **Alternative procedures and possibilities for treatment:**

No other procedure is available in medicine that produces ketamine's effects. There are current and ongoing trials assessing the use of other psychedelics for mental health and therapeutic purposes, but these substances are not yet available for prescription as ketamine is.

Various psychotherapeutic modalities, medications including antidepressants, mood stabilizers, sedatives, and anti-psychotics, and interventions such as electroconvulsive therapy, transcranial magnetic stimulation are currently used in the treatment of trauma-related, mood, anxiety, and personality disorders.

## **What is Ketamine-Assisted Psychotherapy (KAP)?**

Ketamine Assisted Psychotherapy (KAP) is a deep psychotherapeutic process that incorporates ketamine's medicinal effects into an intensive in-office session contained and guided by a psychotherapist specifically trained in psychedelic psychotherapy. KAP sessions last up to 3 hours, and the frequency of the sessions will vary depending on each individual's current needs and presentation.

Your KAP treatment team consists of a therapist and a licensed medical provider (a physician or nurse practitioner) who coordinate your care and openly discuss your treatment plan with you and each other prior to and during each of your treatment sessions. We will also coordinate with outside therapists and providers if requested or necessary, in which case we will ask that you sign a Release of Information.

As already noted, the psychedelic and dissociative experience provided by ketamine is different for everyone. Some people feel nervous, uncomfortable, or fearful as the medication takes effect and they enter a non-ordinary state of consciousness. While many people have blissful experiences, it is also possible to have difficult moments of awareness and many feelings may arise. Often, these difficult feelings are precisely what needs to be therapeutically worked with and understood for healing, which is part of KAP's unique treatment potential. Healing is not a linear process and working with grief and fear can be challenging. We are here to assist and support you in preparation for and throughout your experience.

**Physical touch:** The psychedelic experience is characterized by a greater sense of psychic and emotional openness which can create the need for physical reassurance or intervention. Your therapist will talk with you during your preparatory session(s) about your personal preferences and boundaries around touch. Just as in any other therapeutic or medical encounter, sexual touch will never be used.

**Integration sessions:** In between in-office KAP sessions, you will have separately scheduled therapeutic integration sessions, which are an essential part of the work of embodying the changes you are intending. One of the biochemical effects of ketamine on the mind is to provide a more open and plastic state, to enable you to implement new habits and perspectives that support mental health and wellbeing. This process is not automatic and requires ongoing work in between KAP sessions for the changes to take root. You and your therapist will determine the optimal frequency of integration sessions.

### **Late cancellations and missed appointments:**

Please note that if you cancel with less than 48 hours' notice, you will be charged the full fee for the session. This applies to all appointment types, including in-office ketamine sessions, or in-person or virtual intakes, prep sessions, integrations, or follow-ups. If you arrive 20 minutes late, we will consider the session cancelled and charge the full amount.