

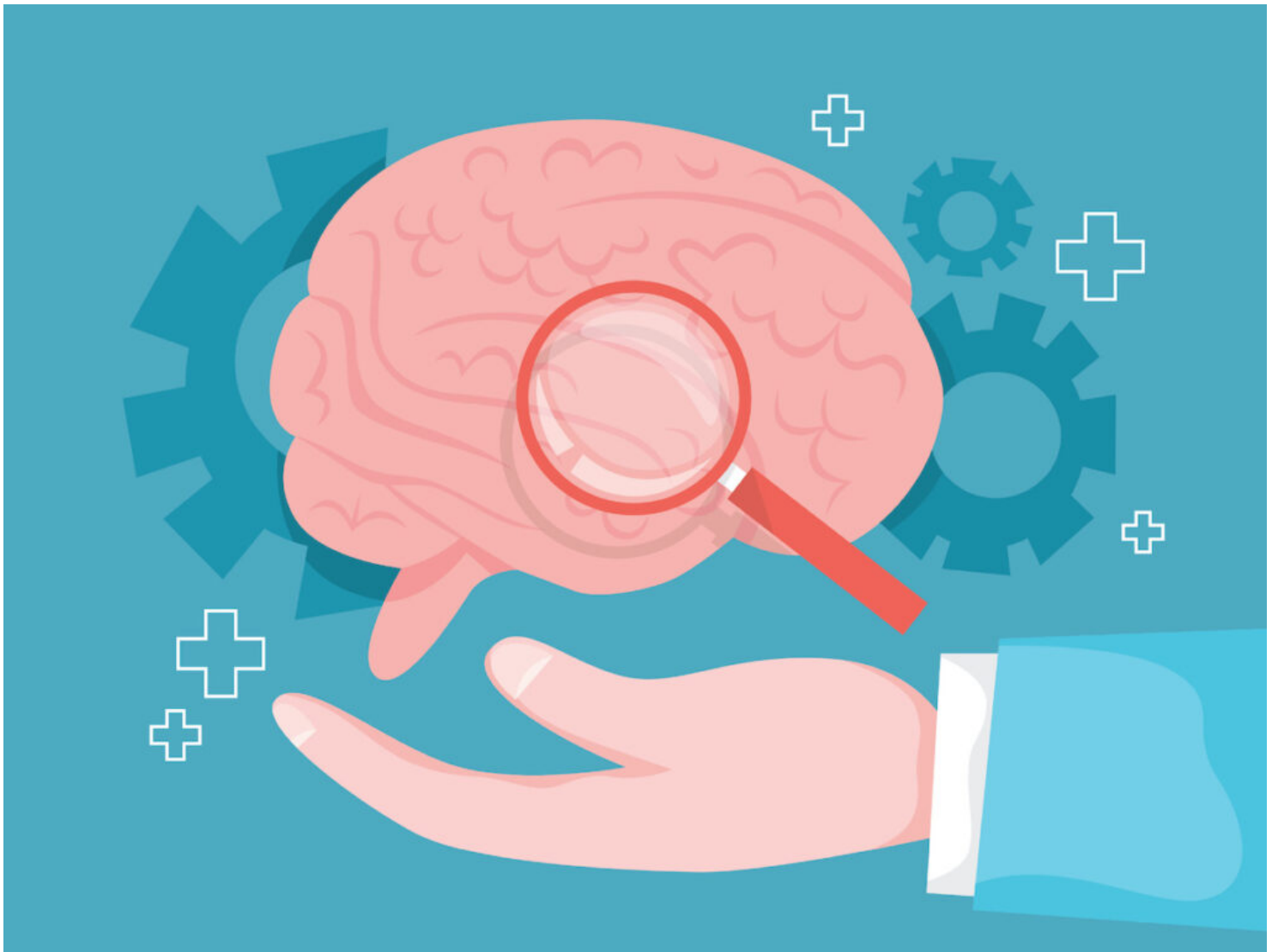
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Five *on*
Friday

Musings on Mental Health

Ketamine: From Party Drug to Prescription Medicine

Ketamine's ignominious start was as a psychedelic party drug with the street name of Special K. Its future is as a promising intervention for treatment-resistant depression. Just this month, the US Food and Drug Administration (FDA) approved esketamine, a form of ketamine, for the treatment of depression. It is the first truly new antidepressant medication to enter the market in the United States in [almost forty years!](#)



[Photo Credit](#)

This arrival is not without controversy. Especially in the wake of the opioid crisis, many experts express concerns about whether the party drug can be used legally without leading to abuse and addiction. Others argue that esketamine has the potential to help individuals whose depression is debilitating and unresponsive to other treatments. Here are five things to know about this drug that is all the rage these days:

1. Ketamine is not a new drug. The drug ketamine is on the World Health Organization's [list of essential medicines](#) and has been [approved by the FDA since 1970](#) as a form of anesthesia. It has been used on pediatric wards and in battlefields to numb the body during short surgeries, and it is also commonly used by veterinarians as anesthesia for dogs, accounting for [90% of the current supply of legal ketamine](#).

In the 1990s, the scientist [Phil Skolnick](#) realized that the drug could lessen depressive symptoms, and in 2000, a team of scientists at Yale University found that doses of ketamine provided [quick relief](#) to seven people with depression. Since then, dozens

of [ketamine clinics](#) have opened across the US to provide the drug to patients who were desperate for an effective antidepressant therapy. But such use of ketamine has been “off-label” because although ketamine was approved by the FDA for some medical purposes, it was not approved specifically to treat depression.

All this changed when this month, the [FDA approved a form of ketamine, called esketamine](#), that can be used as a nasal spray. Esketamine (which will be known as Spravato) has promise as a fast-acting drug that shows positive benefits [within days of treatment](#). The intravenous treatment of ketamine will remain off-label.

2. Esketamine is a different kind of anti-depressant drug. Part of the excitement around esketamine is that it works differently than other antidepressants like Prozac. Most major antidepressants available today make a chemical called serotonin more available in the brain, which [eases depression symptoms](#). Esketamine, on the other hand, focuses on a different chemical, called glutamate. Glutamate is believed to play a role in stimulating the growth of new brain connections that leads to [reduced depressive symptoms](#). By blocking a glutamate receptor, esketamine causes changes in the brain that may be an [alternative path to treating depression](#).

3. Not anyone can go buy esketamine right now. The FDA approval of esketamine comes with many caveats and restrictions. To lower the risk of abuse, esketamine is only available at certified clinics where patients will be monitored carefully. Individuals are eligible to try esketamine only after [trying two other anti-depressant medications without success](#). And then there is the cost. It is unclear what insurance companies will cover and treatment estimates are in the vicinity of [\\$7,000 per month](#).

4. Risks for abuse are varied and worrisome. Even though esketamine offers hope for a specific group of individuals with drug-resistant depression, it remains controversial because of its potential for abuse. As a recreational drug, ketamine is a psychedelic drug. It affects multiple sensory systems and can cause hallucinations, feeling out of touch with one’s surroundings and finding it difficult to speak or move. It has been abused as a [date-rape drug](#). It has also been abused by healthcare professionals and law enforcement officials to subdue individuals as well. Just last year, [emergency medical workers](#) in Minneapolis were found guilty of using ketamine to [sedate aggravated patients](#). With the long shadow of opioid crisis, the need to be hyper-vigilant about the delivery and appropriate use of esketamine is part of every conversation. This is the only way that the potential benefit will outweigh the very real risks of harm.

5. Columbia Ketamine Program. The Department of Psychiatry at Columbia University Irving Medical Center, is on the forefront of ketamine research and treatment. Under the direction of [Dr. John Mann, MD](#). The [Columbia Ketamine Program](#) has been established to provide comprehensive clinical care and advance clinical research on this new intervention for treatment-resistant depression. Located in midtown Manhattan, Columbia's clinicians and scientists are conducting ongoing research to better understand the underlying mechanisms and the anti-depressive effects of ketamine. To date, findings indicate that patients given esketamine report significant reductions in depression symptoms even up to [two weeks after treatment](#). They have also found that if ketamine does not work within the first two sessions, the data suggest that it is unlikely to work at all.

[The conversation around esketamine is just beginning](#). For individuals with treatment resistant depression, the potential for esketamine to relieve their enduring suffering is nothing short of a miracle. But science and effective care cannot rest on miracles. Additional research, appropriate policy, and careful consideration of the risks and benefits of esketamine are paramount for the future understanding and treatment of depression and the role of this FDA-approved newcomer.