ETHICALLY INDEFENSIBLE:

NEUROPATHIC PAIN, MEDICAL CANNABIS & ORGAN TRANSPLANT ELIGIBILITY

A Primer for U.S. Transplantation Programs, Committees, & Teams on Implementing Evidence-Based Cannabis Policies

Prepared by Americas for Safe Access-March 2026

This primer supplements ***Stigma with a Body Count: Medical Cannabis & Organ Transplant Policies,*** a report by Americans for Safe Access that documents how discrimination and bias distort access to life-saving care for patients who use cannabis medicines. The final months of medical cannabis patient Patrick Navarro's life, and the ordeal his family endured, were the catalyst for the report. The fact that a diabetic using cannabis medicine to treat severe neuropathic pain was treated like a drug addict by the UCSF transplant committee in 2026 revealed a serious education gap at the transplant-program level.

ASA designed this primer for members of transplantation programs, committees, and teams who evaluate patients and help shape organ-transplant eligibility policies to improve their understanding of severe neuropathic pain, its prevalence in organ-related diseases, clinical data on medical cannabis and neuropathic pain, and an overview of the clinical management issues relevant to transplant care. **ASA offers this primer in the hope that transplant professionals will support cannabis policies grounded in clinical evidence rather than stigma.**

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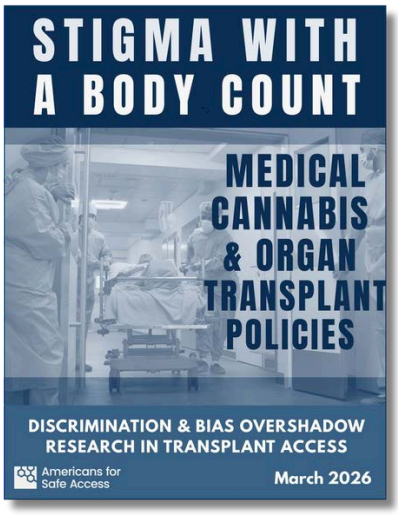


Americans for Safe Access

Americans for Safe Access Foundation (ASA) is a 501(c)3, nonprofit organization. Founded in 2002, ASA is the largest national organization of patients, medical professionals, scientists, providers, and concerned citizens promoting safe and legal access to cannabis for therapeutic use and research. **www.SafeAccessNow.org**

Neuropathic pain is a common and often disabling feature of organ-related diseases and systemic illnesses, including kidney disease, diabetes, and liver disease. It is difficult to treat effectively and is a reality for many patients being evaluated for life-saving transplantation, often alongside heavy medication burdens. In human research, neuropathic pain is one of the areas where cannabis has shown one of the clearest and most consistent signals of benefit, making the issue clinically relevant, not peripheral, to transplant care.

Today, there is no national transplant authority requiring transplant centers to force patients to prove six months of cannabis abstinence before putting a patient on a transplant waitlist or mandating the denial of transplantation opportunities solely because of medical cannabis use. Unfortunately, these practices persist, even in states that have taken steps to bar discrimination.

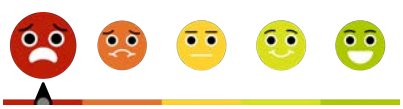
Patrick Navarro's family experienced this firsthand when they were told that he would have to prove six months of abstinence before he could be considered eligible for a transplant. Months later, after enduring grueling physical therapy to regain the strength needed for a lung transplant while still receiving no effective treatment for his neuropathy, his family was told that his medical cannabis use made him ineligible. He did not have six months. In the time he had left, he and his family were forced to confront the stigma still attached to cannabis medicines and his family is now left to wonder whether discrimination narrowed his chance to survive.

ASA created this resource for members of transplantation programs, committees, and teams who evaluate patients and help shape standards for organ transplant eligibility so they can better understand severe neuropathic pain, why medical cannabis may be an important part of a candidate's treatment plan, and the clinical management issues relevant to transplant care. No patient should lose access to a life-saving transplant because outdated assumptions were allowed to outweigh clinical evidence. In transplant medicine, deliberate ignorance and stigma are ethically indefensible.

NEUROPATHIC PAIN

Neuropathic pain is pain caused by a lesion or disease of the somatosensory nervous system. General population estimates summarized by the International Association for the Study of Pain suggests neuropathic affects roughly 7% to 8% of adults. A large U.S. multimodal survey found probable neuropathic pain in 10% of all respondents and in 15.7% of respondents who reported experiencing pain.

Neuropathic pain accounts for about one in six cases among people reporting pain in the best U.S. survey data. Recent clinical literature underscores that neuropathic pain remains difficult to treat effectively. As one recent review observed, **"The management of neuropathic pain remains challenging, with fewer than 50% of patients achieving satisfactory relief."** This is especially important in diabetic neuropathy, one of the most common and well-studied neuropathic pain conditions, where guideline-based treatment options remain limited, and many patients continue to experience inadequate relief despite standard therapies.



THE MANAGEMENT OF NEUROPATHIC PAIN REMAINS CHALLENGING, WITH FEWER THAN 50% OF PATIENTS ACHIEVING SATISFACTORY RELIEF

-Evolving Treatment Strategies for Neuropathic Pain

NEUROPATHIC PAIN & PREVALENCE IN ORGAN-RELATED DISEASE

Kidney disease and kidney transplantation intersect with neuropathic pain in several ways. Diabetes is a leading cause of both kidney failure and peripheral neuropathy. Advanced kidney failure leads to hyperuricemia, which in turn can lead to the production of uremic neuropathy. Neuropathic pain remains common even after transplantation because patients may carry forward pre-existing nerve injury or develop it due to treatment-related complications.

A 2021 meta-analysis on chronic kidney disease found a pooled prevalence of neuropathic pain of about 10%. Reviews note that uremic neuropathy becomes especially common in advanced kidney failure and dialysis populations. A 2025 study emphasized that polyneuropathy is highly prevalent in kidney transplant recipients and linked that risk to the pre-transplant state of chronic kidney disease, diabetes, and other contributors. This matters clinically because transplant recipients often face chronic pain and a heavy medication burden at the same time.

Systemic amyloidosis can deposit fibrils in peripheral nerves and produce painful length-dependent sensorimotor or autonomic neuropathy. Type 1 and type 2 diabetes can produce painful diabetic neuropathy. Prevalence estimates vary widely by population and method but commonly reach into the double digits and, in some reviews, into the 30% to 50% range for diabetic neuropathy broadly.

Hepatitis C is associated with peripheral neuropathy, especially in the setting of mixed cryoglobulinemia. Alcohol-related liver disease can be accompanied by painful alcoholic neuropathy characterized by burning pain, hyperalgesia, and allodynia. Inflammatory bowel disease and Crohn's disease are less direct neuropathic-pain conditions, but neuropathy can occur through nutritional deficiency, medication toxicity, or immune-mediated complications rather than from bowel inflammation alone.

Across solid-organ transplantation, the clinical implications vary by organ but follow a common pattern. In kidney recipients, the clearest concerns are nephrotoxicity and renal dosing. In liver recipients, hepatic metabolism and hepatotoxicity require close attention. Heart and lung recipients are particularly vulnerable to edema, orthostasis, QT effects, sedation, and respiratory depression. Intestine and pancreas recipients may face additional complications related to oral tolerance, constipation, absorption, and nutritional compromise. Across all organ-transplant populations, the shared issues are polypharmacy, interaction monitoring, preservation of adherence to immunosuppressive therapy, and avoiding clinical assumptions that treat cannabis medicines as a character flaw rather than a clinical variable

RESEARCH & CANNABIS MEDICINES FOR NEUROPATHIC PAIN

The most defensible conclusion is not that cannabis works for every patient or every pain syndrome. It is that neuropathic pain is one of the areas where cannabis has shown a consistent signal of benefit in human pain research. That signal is especially visible in randomized trials using inhaled whole-plant cannabis and shows up in meta-analyses focused on neuropathic pain. That matters to transplant programs because neuropathic pain is common, challenging to adequately treat, and frequently undertreated while being evaluated for life-saving transplant care.

CANNABIS CONSUMERS 33 % LESS LIKELY TO BE INCLUDED ON TRANSPLANT LISTS

Marijuana Use Among Adult Liver Transplant Candidates and Recipients.

In 'Smoked Cannabis for Chronic Neuropathic Pain: A Randomized Controlled Trial,' Ware and colleagues reported that smoked cannabis reduced pain, improved mood and sleep, and was well tolerated. In 'Low-Dose Vaporized Cannabis Significantly Improves Neuropathic Pain,' Wilsey and colleagues concluded that vaporized cannabis, even at low doses, may present an effective option for patients with treatment-resistant neuropathic pain. In 'Efficacy of Inhaled Cannabis on Painful Diabetic Neuropathy,' Wallace and colleagues found that inhaled cannabis demonstrated a dose-dependent reduction in diabetic peripheral neuropathy pain. **In 'Inhaled Cannabis for Chronic Neuropathic Pain: A Meta-analysis of Individual Patient Data,' Andreae and colleagues concluded that inhaled cannabis appears to provide short-term relief from chronic neuropathic pain for one in five to six patients treated.**

More recent reviews have reinforced the basic point while also sharpening the limits. The 2021 Frontiers review concluded that scientific evidence supports cannabinoid-based pain management and highlighted especially strong data from cannabis-derived products in chronic neuropathic pain. A 2023 retrospective study of 99 cases reported that **medical cannabis alleviated chronic neuropathic pain effectively and sustainably without severe adverse effects, while also improving sleep disturbance**.

IN THIS TRIAL, VAPORIZED CANNABIS, EVEN AT LOW DOSES, MAY PRESENT AN EFFECTIVE OPTION FOR PATIENTS WITH TREATMENT-RESISTANT NEUROPATHIC PAIN

Low-Dose Vaporized Cannabis Significantly Improves Neuropathic Pain: 2013

IN THIS DIABETIC-NEUROPATHY STUDY, INHALED CANNABIS DEMONSTRATED A DOSE-DEPENDENT REDUCTION IN PAIN.

EFFICACY OF INHALED CANNABIS ON PAINFUL DIABETIC NEUROPATHY-2015

A 2025 systematic review focused on peripheral neuropathy found that 13 of 14 randomized controlled trials reported statistically significant pain reduction and that pooled effects favored cannabinoids by -0.67 points on a 0 to 10 scale, with improvements in sleep, sensory symptoms, and quality of life. The 2025 AHRQ living systematic review still found the clearest U.S. evidence signal in chronic neuropathic pain trials.

A 2017 systematic review and meta-analysis of randomized controlled trials concluded that cannabis-based medicines might be effective for chronic pain treatment, based on limited evidence, primarily in neuropathic-pain patients. That review also found gastrointestinal adverse events more common with oral or oromucosal administration than with inhalation. A 2019 cost-effectiveness model estimated that adjunctive smoked cannabis could be cost-effective as a second-line strategy for chronic peripheral neuropathy under modeled assumptions. That model illustrated that the literature has extended beyond efficacy into implementation and access questions.

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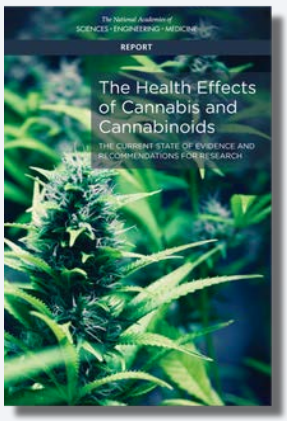
PATIENTS DIE EVERY DAY WAITING FOR AN ORGAN



"There is conclusive or substantial evidence that cannabis or cannabinoids are effective for the treatment of chronic pain in adults, as anti-emetics in the treatment of chemotherapy-induced nausea and vomiting, and for improving patient-reported multiple sclerosis spasticity symptoms."

National Academies of Sciences, Engineering, and Medicine: The Health Effects of Cannabis & Cannabinoids, January 2017

"None of the evidence from the systematic reviews included in our analysis demonstrated substantial safety concerns that would argue against the use of marijuana in any of the indications where there exists some support for its benefit."

FDA's Center for Drug Evaluation and Research (CDER) "Considerations for Whether Marijuana Has a Currently Accepted Medical Use in the United States for Purposes of Section 202(b) of the Controlled Substances Act"

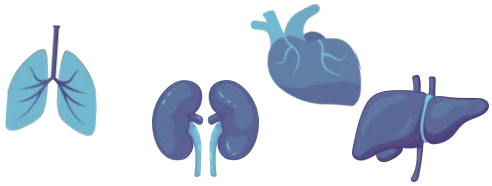
FDA-APPROVED NEUROPATHIC PAIN MEDICATIONS

The table on the next page shows that conventional options are limited not only by modest efficacy but also by adverse effects, organ-specific warnings, and additional concerns in the peri-transplant and post-transplant setting. For patients who rely on medical cannabis because other therapies were ineffective or poorly tolerated, cannabis medicines may be especially clinically relevant before and after transplantation, particularly when standard pain-management options are constrained by safety, tolerability, or organ-specific risk. Patients should not be penalized for using medical cannabis under these circumstances. Rather, transplant teams should evaluate cannabis use as a clinical issue and consider whether it may represent a reasonable therapeutic option for similarly situated patients.

2025

49,064

ORGAN TRANSPLANTS



180,000 ON WAITLISTS

FDA-APPROVED NEUROPATHIC PAIN MEDICATIONS

MEDICATION (Listed in Typical Order of Use)	FDA APPROVED FOR NEUROPATHIC PAIN / RX STATUS	COMMON SIDE EFFECTS	TRANSPLANT / ORGAN-SPECIFIC CAUTIONS	REPORTED REASONS FOR DISCONTINUATION
Gabapentin / gabapentin ER products	Approved for Postherpetic Neuralgia (PHN). Rx only.	Dizziness, somnolence, ataxia, peripheral edema	Renally cleared; dose adjust carefully in kidney dysfunction. Across solid-organ transplant recipients, CNS depression can compound with other sedating medicines; edema & gait instability can complicate heart, lung, & frailty-related rehabilitation.	Sedation, dizziness, trouble concentrating, gait instability, edema
Pregabalin	Approved for Diabetic Peripheral Neuropathy_ (DPN), PHN, and Spinal Cord Injury (SCI) neuropathic pain. Rx only.	Dizziness, somnolence, edema, blurred vision, weight gain	Renally cleared; dose appropriately based on graft function. Edema and weight gain can be especially problematic after heart or lung transplant; sedation & vision effects can interfere with adherence & rehabilitation across transplant types.	Dizziness, sedation, edema, blurred vision, weight gain
Duloxetine	Approved for diabetic peripheral neuropathic pain. Rx only.	Nausea, somnolence, dry mouth, constipation, decreased appetite	Use cautiously in patients with severe renal impairment or significant liver dysfunction. Hepatic metabolism is especially relevant after liver transplant. Monitor for GI effects, blood pressure, & drug interactions, particularly medications that influence CYP1A2 & CYP2D6.	Nausea, fatigue, dry mouth, sweating, insomnia
TCAs (e.g., amitriptyline, nortriptyline)	Commonly used off-label for neuropathic pain. Rx only.	Anticholinergic effects, orthostasis, sedation, QT issues	Often poorly tolerated in elderly or medically complex patients. QT prolongation, orthostasis, and arrhythmia risk are particularly relevant in cardiovascular disease and post–heart transplant populations; sedation & constipation can complicate lung, intestine, pancreas, & frail post-transplant patients.	Sedation, dry mouth, constipation, dizziness, cognitive impairment
Lidocaine 5% patch / topical systems	Approved for PHN. Rx only.	Application-site reactions, numbness, irritation	Minimal systemic exposure limits drug-interaction risks. Often easier across transplant types when pain is localized & polypharmacy is already heavy.	Skin irritation, poor adhesion, not enough coverage
Capsaicin 8% topical system	Approved for PHN and DPN of the feet. Rx only.	Application-site pain, erythema, burning, transient blood-pressure increase during treatment	No renal dose adjustment; limited systemic exposure, which can help when polypharmacy is severe. Short-term blood-pressure increases have been documented during application. Requires in-office application by a healthcare professional	Burning during/after application, pain & discomfort, incomplete relief
Tapentadol ER	Approved for severe diabetic peripheral neuropathic pain requiring around-the-clock opioid therapy. Rx only.	Nausea, constipation, dizziness, somnolence, respiratory depression, dependence	Typically reserved for refractory cases requiring opioid therapy. Respiratory depression is particularly relevant after lung transplant; constipation and ileus pose risks in abdominal organ transplant; Use caution in hepatic impairment due to increased risk of opioid-related adverse effects across transplant populations.	Nausea, constipation, sedation, perceived safety concerns, opioid concerns
NSAIDs	Not FDA-approved for neuropathic pain. Many Rx and OTC forms.	GI bleeding, fluid retention, acute kidney injury, blood-pressure elevation	Generally avoided or minimized after kidney transplant because of nephrotoxicity risk, especially when given with calcineurin inhibitors. Fluid retention, hypertension, bleeding, & kidney injury also matter for heart, liver, lung, and multi-organ recipients; Transplant and nephrology guidance commonly recommend limiting NSAIDs to no more than a few days without clinician approval.	Stomach upset, swelling, blood-pressure elevations, renal risk
Medical Cannabis	Not FDA-approved for neuropathic pain in the U.S.; medical use is state-based, not federally labeled. Usually not dispensed as a standard Rx drug.	Dizziness, sedation, dry mouth, cognitive slowing, feeling high; route- and dose-dependent	Not nephrotoxic in the way NSAIDs are, but all solid-organ transplant recipients need reliable product-quality controls, fungal contaminant screening, and in-depth review of cannabinoid profile. CBD-related interactions (CYP inhibition and P-gp inhibition) may increase exposure to transplant medications like tacrolimus, cyclosporine, sirolimus, and everolimus & require close monitoring.	Dizziness, unwanted psychoactivity, sedation, cost, legal concerns, access barriers

BEYOND PREFERENCE: COMPARATIVE SIDE EFFECTS

The problem with neuropathic pain treatment is not simply a lack of options or low rate of efficacy. It is that available options often produce tradeoffs that patients cannot tolerate for long: sedation, dizziness, cognitive blunting, edema, constipation, anticholinergic burden, falls risk, opioid dependence, or kidney risk. This matters even more in transplant recipients because those side effects stack on top of immunosuppressants and other adherence-critical medicines.

Cannabis is not free of side effects. Short-term adverse effects in trials commonly include dizziness, euphoria, dry mouth, bloodshot eyes, and dose-related cognitive effects. Most side effects of cannabis use resolve after a couple of days of stable dosing, and often therapeutic efficacy can be obtained at doses that do not cause any interceptive drug effects, much less impairment or unwanted adverse events.

ADDRESSING CONCERNS: PRODUCT SAFETY, DRUG INTERACTIONS & DRUG DELIVERY

DRUG INTERACTIONS

A commonly cited concern for medical cannabis use in transplant candidates involves potential interactions between cannabinoids and immunosuppressive medications used after transplantation. Calcineurin inhibitors such as tacrolimus and cyclosporine are metabolized via cytochrome P450 enzyme pathways, and cannabinoids—particularly cannabidiol (CBD)—can influence those metabolic pathways.

Evidence of such interactions has been documented in clinical studies. A pharmacokinetic investigation reported a clinically significant interaction between CBD and tacrolimus, demonstrating that CBD exposure could increase tacrolimus levels in transplant patients. suggesting that careful monitoring is warranted. In this context, cannabinoid interactions represent a manageable pharmacological issue rather than a categorical contraindication.

DRUG INTERACTIONS & CANNABIS

UNDER MEDICAL SUPERVISION:
Warfarin, Buprenorphine, Tacrolimus

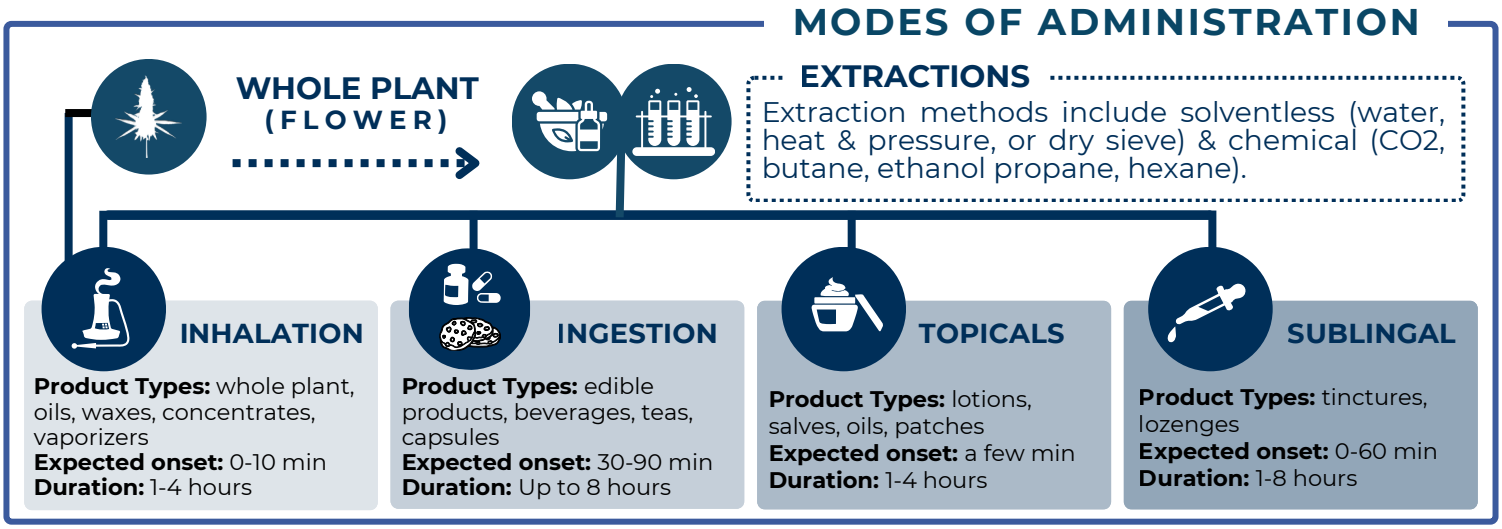
CAUTION: Clozapine, Methadone, Clobazam, Chlorpromazine, Hexobarbital, Rifampicin, Stiripentol, Theophylline, Valproate

MEDICATIONS THAT INCREASE CANNABIS EFFECTS:
Amiodarone, Amlodipine, Azole, antifungals, Calcium antagonists, Doxycycline, Erythromycin, Fluoxetine, Ketoconazole, Proton pump inhibitors, Verapamil

MODES OF ADMINISTRATION & CONTAMINANT CONSIDERATIONS

One of the most concrete concerns in the transplant literature involves contamination of cannabis products with microbial pathogens. Transplant recipients and candidates are often immunocompromised, which increases their susceptibility to opportunistic infections. Case reports dating back several decades have documented invasive aspergillosis associated with inhalation of contaminated cannabis in immunocompromised patients.

A frequently cited case report published in *Chest* described fatal invasive aspergillosis in a bone marrow transplant recipient linked to smoking contaminated marijuana. Another report documented a renal transplant patient who developed invasive pulmonary aspergillosis after smoking marijuana; the infection was successfully treated, but highlighted the potential infectious risk associated with inhaled plant material.



These reports illustrate a specific clinical risk: **inhalation of contaminated cannabis products in severely immunocompromised individuals.** However, they do not demonstrate that all medical cannabis use is unsafe for transplant patients. Instead, they highlight the importance of product safety and route of administration.

In recent years, almost every state-regulated cannabis programs have adopted increasingly stringent microbial testing requirements designed to address these risks precisely. Numerous states now require testing for pathogenic Aspergillus species, particularly for inhalable cannabis products, as well as testing for microbial contaminants such as Salmonella, Escherichia coli, and total yeast and mold counts. Regulatory analysis published in Environmental Health Perspectives has documented significant variation among state contaminant testing rules, but the overall trend has been toward stronger microbial screening requirements in regulated markets.

SafeAccessNow.org/WhatsInYourCannabis

For transplant patients, these developments suggest several practical clinical approaches. Clinicians may recommend specific dosage forms and ensure that patients obtain products from regulated sources subject to laboratory testing, and counsel patients about the specific risks associated with smoking plant material during periods of intense immunosuppression.

Contaminants matter more in immunosuppressed patients. For transplant recipients, the key question is not inhalation versus no inhalation in the abstract, but whether the product is contaminant-screened, clinically supervised, and compatible with the patient's immunosuppressive regimen. **That is a management question, not a justification for discrimination.**

ROUTE	TESTING & TRANSPLANT CONSIDERATIONS
Inhalation	**Fast titration, but inhaled products should be sourced from regulated channels with testing for microbial contamination, heavy metals, pesticides, residual solvents, and problematic additives.**
Ingestion	**Slower onset and longer duration can help some patients, but delayed onset makes overuse easier. Oral products still require contaminant and potency testing, and cannabinoid content matters for interaction review.**
Topicals	**Useful when systemic exposure should be minimized. Patients should still favor regulated products with pesticide, heavy-metal, and residual-solvent testing when relevant.**
Sublingual	**Can offer more predictable onset than edibles. As with all concentrated products, patients should verify potency and contaminant testing and review CBD content when interaction concerns exist.**

INHALATION: A LEGITIMATE MEDICAL ROUTE OF ADMINISTRATION

Inhalation is a legitimate medical drug-delivery route, not a synonym for smoking. Many FDA-approved medications rely on inhalation because pulmonary delivery can produce rapid onset and, in some settings, superior bioavailability. Transplant clinicians already work with inhaled therapies in mainstream medicine. Cannabis should be evaluated with the same clinical seriousness, including route, formulation, contaminants, and monitoring, rather than through stigma or shorthand assumptions.

For medical cannabis, inhalation is clinically relevant because it allows fast titration to effect, which can matter when pain flares, sleep disruption, muscle spasm, or nausea require timely relief. It also avoids gastrointestinal absorption and first-pass hepatic metabolism that occur with oral products. In kidney disease literature, THC and CBD are described as being eliminated primarily through the fecal route with only limited renal excretion. That is one reason cannabinoids may be attractive in patients where renal dose adjustment and nephrotoxicity are major concerns**.**

Many FDA-approved medications rely on inhalation for its superior bioavailability and rapid onset of action. Cannabis should be considered alongside these widely accepted treatments:

FDA-APPROVED INHALED MEDICATIONS:

Insulin: Afrezza
Antimicrobial Agents: Amikacin (Arikayce), Aztreonam (Cayston), Tobramycin (Bethkis, TOBI), Pentamidine (NebuPent), Ribavirin (Virazole)
Pulmonary Hypertension Agents: Iloprost (Ventavis), Treprostinil (Tyvaso)
Others: Dornase (Pulmozyme) – pulmonary function, Levodopa (Inbrija) – Parkinson's disease, Loxapine (Adasuve) – antipsychotic

CLINICAL GRID: INHALATION IN CONTEXT

CLINICAL POINT	WHY CLINICIANS USE INHALATION	WHY IT MATTERS IN TRANSPLANT PATIENTS
Rapid onset	Drug reaches systemic circulation quickly through the lungs.	Can help when patients need timely symptom control instead of waiting for oral onset.
Dose titration	Patients can titrate inhaled doses incrementally.	Useful when patients are sensitive to sedation or already taking many medications.
First-pass avoidance	Avoids gastrointestinal absorption and first-pass hepatic metabolism seen with oral products.	Helps reduce unpredictability from oral absorption and lowers reliance on adding another pill.
Polypharmacy context	Inhalation is already used across modern medicine for both pulmonary and systemic treatment.	Supports treating cannabis inhalation as a route-of-delivery question, not a stigma question.
Transplant caution	Route alone is not the problem; product safety and cannabinoid profile are.	Immunosuppressed patients need contaminant-tested products and review of CBD-related interaction risk.
Whole-plant vaporization	Vaporizing tested flower avoids many cartridge additives and keeps the route closer to whole-plant research. Cartridge products may contain thinning agents, carrier oils, flavorings, or concentrated terpenes.	For transplant patients, whole-plant vaporization and vape pens should not be treated as interchangeable. Avoid products with uncertain additives or poor testing documentation.

VAPORIZATION: WHOLE PLANT VS CARTRIDGES

Whole-plant cannabis vaporization should be distinguished from vape pens and oil cartridges. Vaporizing flower heats plant material without combustion and without the thinning agents commonly used in many cartridges. Vape pens and oil cartridges can contain additional excipients, carrier oils, added terpenes, flavorings, or other adulterants that create a different inhalation toxicology profile when heated. For transplant patients, that distinction matters clinically.

Additives deserve separate caution. Propylene glycol and polyethylene glycol can generate harmful degradation products when heated. Vitamin E acetate is strongly linked to EVALI and should never be inhaled. Medium-chain triglyceride oils, concentrated terpene blends, food-grade terpenes, essential oils, and artificial flavoring agents should not be treated as established-safe inhalation ingredients simply because they are used in food or fragrance contexts.

"THIS META-ANALYSIS CONCLUDED THAT INHALED CANNABIS APPEARS TO PROVIDE SHORT-TERM RELIEF FROM CHRONIC NEUROPATHIC PAIN FOR ONE IN FIVE TO SIX PATIENTS TREATED."

2015 - Inhaled Cannabis for Chronic Neuropathic Pain: A Meta-analysis of Individual Patient Data

VAPORIZATION: SAFE, APPROVED MEDICAL DEVICE

Unlike common misconceptions that associate inhalation with smoking, this method is a widely used, medically accepted, and highly effective route of administration. It provides relief for various conditions with an established safety profile, supported by extensive research on whole plant cannabis.

Vaporizers come in many sizes, from tabletop to pocket

MEDICAL DEVICES ARE AVAILABLE FOR CANNABIS INHALATION

The Volcano Vaporizer by STORZ & BICKEL is an internationally recognized medical-grade vaporization device, reinforcing the legitimacy of inhaled cannabis use. Unlike combustion methods, vaporization provides a cleaner, controlled way to inhale cannabinoids without harmful byproducts. The device is widely accepted in medical settings:

- **CE approval under the Medical Device Regulation (EU) 2017/745**
- **Approved for medical use in Canada, Europe, Australia, New Zealand, and Israel**

TRANSPLANT CONSIDERATIONS: MONITORING, CONTAMINATION, & CANNABINOID PROFILES

For transplant recipients, the appropriate clinical response is monitoring rather than automatic exclusion. **ASA's report Stigma with a Body Count summarizes current transplant evidence as showing no clear clinical evidence that cannabis exposure alone jeopardizes transplant success across kidney, liver, heart, and lung transplantation.** That report also emphasizes that the most credible risks can be addressed through patient monitoring. Published transplant surveys and commentaries show substantial center-to-center variation. They do not identify any national requirement that programs impose a six-month abstinence rule or deny evaluation, waitlisting, or transplantation solely because of lawful medical cannabis use. When programs continue to do so anyway, they are making a discretionary choice rather than carrying out a national mandate.

The strongest current interaction signal is for cannabidiol with tacrolimus and related immunosuppressants. A 2025 phase I study found that CBD increased tacrolimus exposure. That finding supports drug-level monitoring and dose adjustment when necessary rather than blanket exclusion. This same practical approach applies to transplant medicine generally: ask about cannabinoid use, identify the cannabinoid profile and route, monitor tacrolimus, sirolimus, everolimus, or related levels to keep patients within the therapeutic range, and document the plan the same way clinicians already document other complex co-medications.

CONCLUSION

Transplant programs do not need to invent a response to medical cannabis from scratch. The evidence, clinical tools, and policy models already exist. Published transplant commentaries have called for clarity rather than exclusion, multiple states already prohibit transplant denial based solely on lawful medical cannabis use, and standard clinical practices already support individualized medication reconciliation, therapeutic-drug monitoring, product-safety counseling, and candidacy review.

ASA's March 2026 policy recommendations identify the reforms needed to bring transplant policy into alignment with evidence-based medicine:

1. **Establish evidence-based national guidance for transplant candidacy**
2. **Prohibit transplant denial based solely on lawful medical cannabis use**
3. **Revise diagnostic frameworks for Cannabis Use Disorder to distinguish medical use**
4. **Improve product safety counseling for patients**
5. **Standardize transplant evaluation practices**
6. **Monitor and document drug interactions**
7. **Expand research and data collection**
8. **Protect open clinical dialogue and patient trust**
9. **Transplant stakeholder cannabis medicine education**

OUR DATA INDICATES THAT MARIJUANA IS NOT ASSOCIATED WITH INCREASED RISK OF POSTOPERATIVE NONCOMPLIANCE, OTHER ORGAN COMPLICATIONS, INFECTIONS, OR DEATH. AS A SINGLE FACTOR, MARIJUANA MAY NOT NEED TO BE A CONTRAINDICATION FOR LIVER TRANSPLANT.

Marijuana Use And Post-Transplant Complications and Non-Compliance in Liver Transplant Patients[v]

These reforms are urgently needed because the clinical realities are not abstract. Neuropathic pain is common, often disabling, and often undertreated. For many patients with kidney disease, transplantation, diabetes, amyloidosis, liver disease, or other systemic illness, neuropathic pain is not incidental but part of the organ-related disease burden itself. The cannabis literature does not justify claims of universal benefit, but it does justify taking patient and clinician experience seriously. Neuropathic pain is one of the best-studied pain indications in the cannabis literature, and inhaled whole-plant formulations have shown reproducible short-term analgesic signals. Major federal and consensus reviews now acknowledge that this is where the evidence base is deepest.

Against that backdrop, treating cannabis medicines in a patient's treatment plan as though they prove drug abuse, noncompliance, or moral unfitness is not evidence-based transplant medicine. Requiring months of abstinence from cannabis medicines before a patient can become eligible for evaluation, waitlisting, or transplantation is not supported by the available evidence. It is ethically indefensible when programs refuse to distinguish lawful medical use, route of administration, product safety, and monitorable interaction risks. For patients with end-stage organ disease, that failure is not a technical flaw in policy. It can be a life-or-death decision.

No patient should lose access to a life-saving transplant because outdated assumptions were allowed to outweigh clinical evidence. No transplant program, center, team, coordinator, or committee should need to wait for another avoidable tragedy before updating its protocols. The path forward is already visible. What is missing is not evidence, but the willingness to act on it. **Deliberate ignorance and stigma in transplant medicine can be deadly.**

INTRODUCTION & CONCLUSION

Americans for Safe Access. Medical Cannabis & Organ Transplantation Policy: Stigma with a Body Count. March 2026. www.safeaccessnow.org/stigma_with_a_body_count

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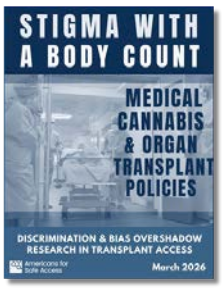
ADDITIONAL RESOURCES:



STIGMA WITH A BODY COUNT:
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Discrimination & Bias Overshadow Research in Transplant Access

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A Patient & Caregiver Supplement to the "Stigma with a Body Count" Report

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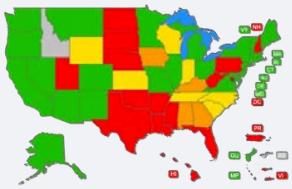

STATE BY STATE RESOURCES FOR PATIENTS, CAREGIVERS, ADVOCATES & MEDICAL PROFESSIONALS

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MEDICAL PROFESSIONALS, MEDICAL CANNABIS & THE LAW

What Medical Professionals Need to Know About Recommending Medical Cannabis

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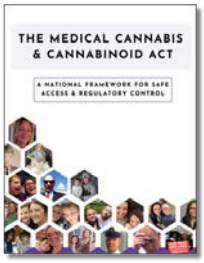

THE MEDICAL CANNABIS & CANNABINOID ACT

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www.SafeAccess4All.org

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ETHICALLY INDEFENSIBLE:NEUROPATHIC PAIN, MEDICAL CANNABIS & ORGAN TRANSPLANT ELIGIBILITY
A Primer for U.S. Transplantation Programs, Committees, & Teams on Implementing Evidence-Based Cannabis Policies

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Americans for Safe Access

Americans for Safe Access Foundation (ASA) is the nation's leading medical cannabis patient advocacy organization, with the mission of ensuring safe and legal access to cannabis for therapeutic use and research. Since 2002, ASA has been at the forefront of medical cannabis policy, promoting expanded access, patient rights and protections, product safety, and healthcare integration. .**www.SafeAccessNow.org**