

# Hepatic Haven

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## **Mind & Liver Psychiatry, Transplantation, and the Human Side of Liver Disease**

Liver transplantation is often described in surgical terms: organs, blood flow, rejection, immunosuppression, survival curves. What is discussed far less openly—but encountered daily by patients, families, and care teams—is the psychological terrain that surrounds liver disease and transplantation. Confusion, fear, depression, anxiety, impaired judgment, and cognitive change are not side effects of the journey. They are part of the journey. This newsletter exists because mental health in liver disease is not ancillary to transplant care. It is foundational. Mind & Liver is written for three audiences who frequently share the same hospital room but rarely receive the same explanations: liver transplant patients and caregivers, transplant candidates at every stage from evaluation to long-term recovery, and the professionals

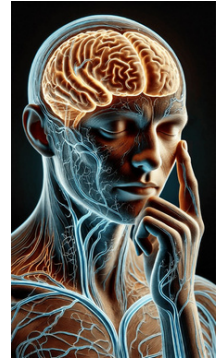
who support them across disciplines—hepatology, psychiatry, social work, nursing, and transplant coordination. The goal is not to oversimplify complex issues, nor to medicalize normal human reactions to illness, but to clarify where psychiatry fits, why it matters, and how it improves safety and outcomes.

Transplant psychiatry is often misunderstood. Patients may perceive it as a test they must “pass.” Families may worry it exists to exclude rather than support. Even clinicians outside transplant medicine may view psychiatric consultation as optional or secondary. In reality, transplant psychiatry exists for the same reason as cardiology clearance or infectious disease review: to reduce risk, preserve capacity, and ensure that patients can safely navigate an extraordinarily demanding medical process.

Advanced liver disease affects the brain. It alters sleep, attention, mood, impulse control, and decision-making. Depression in a transplant candidate may look different from major depressive disorder in the general population. Anxiety during listing may reflect realistic uncertainty rather than pathology. Delirium can mimic hepatic encephalopathy—and vice versa—with serious consequences if the distinction is missed. Medication choices that are routine elsewhere can be dangerous when liver function is impaired. These are not abstract concerns; they shape real decisions about consent, adherence, safety, and survival.

This newsletter will address those realities directly. We will explore why transplant psychiatry exists and what it actually does. We will examine capacity and consent in the context of fluctuating cognition. We will distinguish depression from demoralization, and anxiety from appropriate fear. We will discuss panic, insomnia, and agitation during listing, hospitalization, and recovery. We will clarify how clinicians differentiate delirium from hepatic encephalopathy, and why that distinction matters. We will review psychiatric medication choices when liver reserve is limited. And we will highlight the essential role of families and caregivers in maintaining psychiatric stability—often long before anyone names it as such.

Throughout, the tone will be clinically grounded and myth-correcting, but always compassionate. Liver disease is not a moral failure. Psychiatric symptoms are not character flaws. Needing support is not a weakness. When mental health is addressed early and thoughtfully, transplant care becomes safer, clearer, and more humane. Mind & Liver is not about adding another layer of judgment to an already difficult process. It is about understanding the mind as an organ that, like the liver, deserves careful attention—especially when so much is at stake.



#### From the Editor

When people hear the words liver transplantation, they tend to think in binaries: sick or cured, before or after, failure or success. What is rarely acknowledged is how much of the transplant journey unfolds in the mind long before it ever reaches the operating room—and long after the incision has healed.

I have watched patients struggle not because they lacked motivation or insight, but because advanced liver disease quietly reshaped their cognition, sleep, mood, and judgment. I have watched families grow frightened when a loved one became confused or withdrawn, unsure whether they were witnessing hepatic encephalopathy, delirium, depression, or something else entirely. And I have watched well-intentioned clinicians underestimate how profoundly the brain is affected in cirrhosis, particularly under stress.

This is why transplant psychiatry exists. Not to police patients. Not to deny care. But to protect patients, preserve autonomy, and ensure safety in a process that demands extraordinary cognitive and emotional resilience.

Mental health in liver disease is not a sidebar. It is central to consent, adherence, decision-making, and survival. A patient cannot meaningfully agree to transplant if cognition is impaired. A family cannot support recovery if they do not understand early warning signs of mental status change. A transplant team cannot optimize outcomes if psychiatric symptoms are dismissed as “expected” or “just stress.”

This newsletter was created to bring clarity to that space.

Here, we will talk plainly about depression versus demoralization, anxiety versus realism, delirium versus hepatic encephalopathy. We will explain why certain medications are avoided, why sleep matters more than most people realize, and why caregivers are often the first—and most important—observers of psychiatric instability. We will address uncomfortable topics without stigma and complex topics without unnecessary jargon.

Above all, this space is meant to reassure patients and families that psychiatric care in transplantation is not a judgment, but a safeguard. It exists because the mind, like the liver, is vulnerable under strain—and because protecting both is essential to giving patients not just more years of life, but better ones.

— Editor

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## Psychiatry in Liver Transplantation: What It Is, Why It Exists, and How It Protects Patients

For many patients and families, a psychiatric consultation during liver transplant evaluation comes as a surprise. Some interpret it as a hurdle. Others fear it is a test they might fail. A few assume it exists to judge past behavior rather than support future care. These assumptions are understandable—and largely incorrect.

Transplant psychiatry exists for one primary reason: to protect patients during one of the most cognitively, emotionally, and physiologically demanding medical processes in modern medicine.

Liver transplantation is not a single event. It is a prolonged journey that requires sustained decision-making, medication adherence, reliable follow-up, and the ability to recognize and report complications. Each of those tasks depends on brain function. When the liver fails, the brain is often affected as well, sometimes subtly and sometimes dramatically. Ignoring that reality places patients at risk.

### The Brain–Liver Connection

Advanced liver disease alters brain function through multiple mechanisms. Hepatic encephalopathy is the most widely recognized, but it is far from the only factor. Sleep disruption, metabolic instability, inflammation, medication effects, nutritional deficiencies, alcohol withdrawal, and prolonged hospitalization all affect cognition and mood. Anxiety and depression are common, but they do not always present in textbook form. Judgment, impulse control, and attention may fluctuate even when patients appear outwardly “fine.”

Transplant psychiatry exists to identify these changes early, contextualize them correctly, and intervene before they compromise safety.

### Capacity, Consent, and Protection of Autonomy

One of the most critical roles of transplant psychiatry is assessing decision-making capacity. Consent for transplant is not a signature on a form; it is an ongoing process that requires understanding risks, benefits, alternatives, and long-term responsibilities. Cognitive impairment—whether from encephalopathy, delirium, severe depression, or medication effects—can undermine that process.

The goal is not to remove autonomy, but to protect it. When capacity is temporarily impaired, psychiatric involvement helps determine whether that impairment is reversible, how to support decision-making, and when it is safe to proceed. In many cases, treatment of sleep disruption, infection, metabolic abnormalities, or medication side effects restores clarity. Without that evaluation, patients may be unfairly labeled as “noncompliant” or “unreliable,” when the true issue is untreated brain dysfunction.

### Differentiating What Looks the Same but Is Not

Confusion in a patient with cirrhosis is often attributed reflexively to hepatic encephalopathy. While common, it is not the only—and sometimes not the correct—diagnosis. Delirium, alcohol withdrawal, medication toxicity, infection, and primary psychiatric illness can present with overlapping symptoms. Treating the wrong condition can delay recovery or cause harm.

Transplant psychiatry brings expertise in distinguishing among these possibilities. That distinction matters. Delirium requires a different response than encephalopathy. Anxiety-driven agitation is not managed the same way as psychosis. Accurate diagnosis improves outcomes and reduces unnecessary interventions.

### Depression, Demoralization, and Realistic Distress

Depression in transplant candidates is common, but it is also frequently misunderstood. Many patients experience profound demoralization—loss of role, independence, and future certainty—without meeting criteria for major depressive disorder. Others develop true clinical depression that impairs motivation, concentration, and adherence.

Transplant psychiatry helps differentiate between these states and treats each appropriately. Pathologizing normal fear is as harmful as ignoring treatable illness. The distinction influences medication choices, timing of transplant, and post-operative recovery.

### Medication Safety When the Liver Is Fragile

Psychiatric medications that are safe in the general population may behave very differently in patients with impaired liver function.

Sedatives can precipitate encephalopathy.

Certain antidepressants accumulate unpredictably. Drug–drug interactions with transplant immunosuppressants can be serious. Psychiatric consultation helps select medications that balance symptom control with safety, often using lower doses, slower titration, or non-pharmacologic strategies when appropriate. This is not conservative care—it is precision care.

### Supporting Families and Caregivers

Families are often the first to notice subtle cognitive or behavioral changes. They are also the ones managing medications, appointments, and crises when patients cannot. Transplant psychiatry recognizes caregivers as essential partners, not peripheral observers.

Education, expectation-setting, and support for caregivers reduce burnout and improve early recognition of problems. This benefits patients directly and stabilizes the entire transplant system around them.

### Not a Barrier, but a Safeguard

Perhaps the most important misconception to correct is this: transplant psychiatry is not designed to deny transplant. It is designed to ensure that when transplant happens, it happens safely, ethically, and with the best chance of long-term success.

When psychiatric issues are identified early and addressed properly, more patients—not fewer—are able to proceed to transplant. Outcomes improve. Complications decrease. Families feel supported rather than scrutinized.

Liver transplantation replaces a failing organ. Transplant psychiatry helps ensure that the person receiving that organ is supported, understood, and protected throughout the process. The mind is not separate from transplant care. It is one of its most critical components.

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## Psychiatry Across the Liver Transplant Timeline

### 1. Pre-Evaluation Phase (Referral → Initial Workup)

Primary psychiatric focus:

Risk identification and baseline understanding.

What psychiatry is looking at:

- History of depression, anxiety, trauma, or substance use
- Prior psychiatric treatment and stability
- Cognitive baseline (especially if encephalopathy is suspected)
- Social supports and caregiver reliability

What it is not:

- A pass/fail test
- A moral assessment
- A retroactive judgment of past behavior

At this stage, psychiatry helps the transplant team understand what support will be needed, not whether a patient “deserves” a transplant.

### 2. Formal Transplant Evaluation Phase

Primary psychiatric focus:

Capacity, consent, and safety.

Key questions addressed:

- Does the patient understand the transplant process and risks?
- Is decision-making capacity intact right now?
- Are cognitive changes reversible or fluctuating?
- Are psychiatric symptoms treatable and stabilized?

Common misconceptions corrected here:

- Active psychiatric illness ≠ transplant ineligibility
- Temporary cognitive impairment ≠ permanent incapacity
- Past addiction ≠ future relapse certainty

This is often when psychiatry becomes most visible—and most misunderstood.

### 3. Waiting List Phase

Primary psychiatric focus:

Monitoring under stress.

Why this phase matters:

- Anxiety, insomnia, panic, and depression often worsen
- Hepatic encephalopathy may fluctuate
- Medications may need adjustment as liver function declines
- Caregiver strain increases

Psychiatry here is preventive. Early intervention reduces:

- Hospitalizations
- Delirium episodes
- Nonadherence
- Family burnout

### 4. Peri-Transplant Hospitalization (ICU → Early Recovery)

Primary psychiatric focus:

Delirium prevention, recognition, and management.

Common issues:

- Delirium vs hepatic encephalopathy
- Steroid-related mood and psychosis
- Sleep–wake cycle disruption
- ICU-related cognitive changes

This is one of the highest-risk neuropsychiatric periods in transplant care. Psychiatric involvement protects both patient safety and graft outcomes.



### 5. Early Post-Transplant Phase (First 3–6 Months)

Primary psychiatric focus:

Adjustment, medication effects, and adherence.

Typical concerns:

- Mood swings related to steroids or tacrolimus
- Anxiety about rejection or infection
- Cognitive recovery (what improves, what lags)
- Identity shift after transplant
- Survivor’s guilt

Psychiatry helps distinguish medication effects from psychiatric illness, preventing mislabeling and unnecessary medication changes.

### 6. Long-Term Post-Transplant Care

Primary psychiatric focus:

Sustainability and quality of life.

Ongoing considerations:

- Long-term depression or anxiety
- PTSD from ICU or near-death experiences
- Alcohol or substance relapse prevention
- Chronic caregiver stress
- Reintegration into work and daily life

Psychiatric care here is about living well, not just surviving.

#### Key Takeaway

Psychiatry in liver transplantation is not a single event.

It is a longitudinal safety system that adapts as medical, cognitive, and emotional demands change.

At no point is its purpose to exclude patients.

Its role is to:

- Protect autonomy
- Improve decision-making
- Reduce complications
- Support families
- Improve long-term outcomes

## **Hepatic Encephalopathy and Cognition: Separating Signal From Noise**

Hepatic encephalopathy (HE) is one of the most common and least well-understood complications of advanced liver disease. Because it alters cognition, behavior, and personality, it often alarms families and frustrates clinicians. Yet much of the confusion surrounding HE stems from a fundamental misunderstanding of how it is diagnosed. The most important principle is this: mental status change is the gold standard for HE. Laboratory values may support clinical judgment, but they do not define the condition.

Ammonia levels are the clearest example of this disconnect. Although ammonia contributes to the pathophysiology of HE, its measurement is neither sensitive nor specific. Patients with significant confusion may have normal ammonia levels, while others with markedly elevated levels may appear cognitively intact. Overreliance on ammonia testing can delay treatment, create false reassurance, or divert attention from other serious causes of altered mental status. HE remains a clinical diagnosis grounded in careful observation, history, and cognitive assessment.

Because HE can be subtle or fluctuate, bedside cognitive tools are essential. Simple assessments such as the Animal Naming Test can uncover impairments in attention, processing speed, and executive function that may not be apparent during casual conversation. When repeated over time, these tools help clinicians track trends, identify early deterioration, and evaluate response to therapy. In practice, changes in performance often matter more than isolated scores.

Accurate diagnosis also requires distinguishing HE from conditions that present in similar ways. Delirium, dementia, alcohol withdrawal, medication toxicity, infection, and metabolic disturbances can all mimic HE. Treating every episode of confusion in cirrhosis as HE risks missing life-threatening problems or worsening cognitive impairment through inappropriate sedation. Thoughtful differentiation protects patients and improves outcomes.

Preventing recurrent HE involves more than prescribing lactulose or rifaximin. Identifying and addressing precipitating factors—such as infection, dehydration, constipation, gastrointestinal bleeding, electrolyte abnormalities, or sedating medications—is critical. Education is equally important. Caregivers are often the first to notice early changes and play a central role in prompting timely evaluation.

HE also has direct implications for liver transplant eligibility and safety. Impaired cognition can compromise decision-making capacity, adherence, and post-transplant recovery. Encouragingly, cognitive improvement after transplant is common, particularly for deficits driven by HE. However, some patients experience persistent cognitive difficulties, underscoring the importance of realistic expectations, careful follow-up, and continued attention to brain health after transplantation.

## **Alcohol, Addiction, and Liver Disease: Facts Without Judgment**

Alcohol-related liver disease remains one of the leading reasons patients require liver transplantation, yet few topics generate as much misunderstanding or stigma. Clear, evidence-based education begins with recognizing that risk is driven by patterns of use, not just quantity. Binge drinking, chronic daily use, and sustained heavy consumption each carry distinct risks, and liver injury can occur even in individuals who do not drink every day. The liver responds to cumulative toxicity and metabolic stress, not moral categories.

It is also important to distinguish alcohol use disorder from what is often labeled “problem drinking.” Alcohol use disorder is a medical diagnosis defined by loss of control, craving, and continued use despite harm. Problematic drinking may not meet diagnostic criteria but can still worsen liver disease. Both matter clinically, but they are not the same—and neither should be approached with judgment. To provide concrete context, standard definitions help clarify risk. In clinical terms, one standard drink equals approximately 12 ounces of beer, 5 ounces of wine, or 1.5 ounces of distilled spirits. Binge drinking is typically defined as four or more drinks for women, or five or more drinks for men, consumed within about two hours. Heavy drinking refers to more than one drink per day for women or more than two per day for men on average. Importantly, there is no known safe level of alcohol consumption for individuals with established liver disease, and even amounts considered “moderate” can accelerate injury in vulnerable patients.

Abstinence is often required before transplantation not as punishment, but as a safety measure. Ongoing alcohol use increases surgical risk, complicates recovery, and threatens long-term graft survival. Demonstrated abstinence allows time for liver recovery when possible and provides critical information about stability and adherence under stress.

Relapse risk assessment is frequently misunderstood. Transplant teams do not rely on intuition or moral judgment. They assess patterns: duration of abstinence, prior treatment engagement, insight into illness, coping strategies, psychiatric comorbidity, social support, and response to stress. No single factor determines eligibility; the goal is risk reduction, not prediction of perfection. Psychiatry plays a supportive role throughout this process. Rather than policing behavior, psychiatric care helps treat co-occurring depression or anxiety, manage cravings, strengthen coping skills, and support sustained recovery. Early involvement improves outcomes.

One diagnosis often overlooked is Wernicke encephalopathy, a thiamine deficiency that can mimic intoxication or encephalopathy and cause permanent brain injury if missed. Prompt recognition is lifesaving.

After transplant, alcohol use does occur in some patients, but outcomes vary widely. Many maintain abstinence long-term; others struggle and benefit from continued, nonjudgmental support. Recovery is a process, not a verdict, and structured, compassionate care saves lives.



### The Transplant Journey: Psychological Milestones Along the Way

The liver transplant journey is often described in clinical stages—evaluation, listing, surgery, recovery—but patients experience it through a series of psychological milestones that are rarely named and even less often addressed. These moments shape emotional resilience, adherence to care, and the ability to reengage with life after transplant. Being placed “on the list” is frequently experienced as both validation and vulnerability. On one hand, listing confirms that the illness is real and deserving of intervention. On the other, it introduces a new kind of uncertainty. Survival now depends on an unpredictable phone call, timing, and circumstances entirely outside the patient’s control. Time becomes distorted. Days feel suspended between hope and dread. Many patients describe living in a constant state of readiness—phones charged, bags packed—while simultaneously feeling powerless. This prolonged waiting often produces anticipatory anxiety. Patients rehearse scenarios repeatedly: getting the call, missing it, being too sick when it comes. Sleep becomes fragmented. Irritability and emotional exhaustion are common. These reactions are often minimized as “stress,” yet they reflect a nervous system held in sustained alertness for months or years.

The intensive care unit marks another profound psychological transition. Even when surgery is successful, the ICU can be disorienting and frightening. Delirium, sleep-wake disruption, loss of autonomy, and fragmented memory are common. Some patients later struggle with features of post-ICU syndrome, including anxiety, depressive symptoms, cognitive slowing, and intrusive recollections. These experiences may surface weeks or months after discharge, long after physical healing appears complete.

After transplant, identity changes in subtle and overt ways. Patients must integrate who they were before illness, who they became while waiting, and who they are now as transplant recipients. Many feel pressure to demonstrate gratitude at all times, even when overwhelmed or afraid. This tension often manifests as survivor’s guilt—gratitude for life mixed with discomfort about the donor’s death or awareness of others who did not survive.

Fear also evolves rather than disappearing. Hypervigilance around symptoms, laboratory values, and bodily sensations is common, especially early after transplant. Normal aches or fluctuations can be misinterpreted as rejection or failure. Reassurance helps, but recalibrating trust in one’s body takes time.

Returning to “normal life” is rarely a return to what existed before. Relationships shift, roles change, and expectations—both internal and external—can feel burdensome. Psychological recovery often lags behind physical recovery, creating frustration and isolation if unrecognized. Acknowledging these psychological milestones does not pathologize the transplant experience; it legitimizes it. Naming them allows patients, families, and clinicians to anticipate challenges, respond with compassion, and support not just survival, but meaningful recovery.

### Medications, Brain Effects, and the Liver: Practical Safety Considerations

Medications that affect the brain behave differently in patients with liver disease and after transplantation. The liver is central to drug metabolism, and when its function is impaired—or rapidly changing—medications that are safe in the general population can become unpredictable or dangerous. Understanding these risks is essential for patient safety.

Antidepressants are commonly needed in liver disease, but selection matters. Many can be used safely at lower doses with careful monitoring, particularly selective serotonin reuptake inhibitors. Others require caution due to hepatic metabolism or sedating effects. The goal is not to avoid treatment, but to choose agents thoughtfully, titrate slowly, and reassess frequently as liver function changes.

Sleep medications pose particular risk in cirrhosis. Sedative-hypnotics can worsen confusion, increase fall risk, and precipitate hepatic encephalopathy (HE). Medications commonly used for insomnia may linger longer in the body when liver clearance is reduced. Non-pharmacologic sleep strategies are often safer first-line approaches, and when medication is necessary, the lowest effective dose should be used with clear stop points.

Benzodiazepines deserve special caution. While effective for acute anxiety or alcohol withdrawal, they significantly increase the risk of HE in cirrhosis and delirium in hospitalized patients. Even small doses can cause disproportionate sedation. Their use should be limited, time-bound, and closely monitored, particularly in patients with prior encephalopathy.

After transplant, medication-related brain effects remain common.

Corticosteroids, often used early post-transplant, can cause mood swings, anxiety, irritability, insomnia, or, less commonly, psychosis. These effects are dose-related and usually improve as steroids are tapered, but they can be alarming if unanticipated.

Tacrolimus, a cornerstone of immunosuppression, can also affect the brain. Tremor, headache, sleep disturbance, anxiety, confusion, and mood changes may occur, particularly at higher blood levels. Recognizing these effects prevents misdiagnosis and unnecessary psychiatric labeling.

Finally, polypharmacy is a frequent and underappreciated cause of confusion in transplant patients. Multiple medications with overlapping sedating or cognitive side effects can compound one another. Regular medication review—especially when mental status changes—is critical.

In liver disease and transplantation, medication safety depends on vigilance, collaboration, and restraint. Thoughtful prescribing protects not just the liver and graft, but the brain that must manage the complex work of recovery.



## Family, Caregivers, and System Stress: The Invisible Load of Transplant Care

Liver transplantation is often framed as a patient's journey, but in reality it is a family undertaking. Caregivers carry an immense and frequently unacknowledged burden—one that intensifies as illness progresses and often persists long after transplant. When caregiver strain is overlooked, both patient outcomes and family stability suffer.

Caregiver burnout is common in transplant families. Loved ones manage medications, appointments, transportation, finances, and constant vigilance for complications, often while balancing work and other responsibilities. Sleep deprivation, chronic anxiety, and emotional exhaustion accumulate quietly. Many caregivers feel they must remain strong at all times, minimizing their own distress to avoid burdening the patient. Over time, this suppression increases the risk of depression, anxiety, and physical illness.

Families are also critical clinical observers. Subtle changes in mental status—slowed thinking, irritability, sleep reversal, poor attention, or personality shifts—are often first noticed at home, not in the clinic. Caregivers who understand what to watch for can prompt earlier evaluation, reducing hospitalizations and preventing serious complications such as hepatic encephalopathy or delirium. Education empowers families to trust their observations and speak up when “something feels off.”

Hospitalization introduces another layer of stress. Communication breakdowns are common during admissions, particularly in intensive care settings where teams rotate and information changes rapidly. Families may struggle to understand plans, feel excluded from decision-making, or receive conflicting messages. When communication falters, anxiety escalates and trust erodes. Clear explanations, consistent points of contact, and validation of caregiver concerns can dramatically improve the experience for everyone involved.

There are moments when caregivers themselves need mental health support. Persistent insomnia, panic, irritability, emotional numbness, or a sense of hopelessness are warning signs, not personal failures. Seeking support—whether through counseling, psychiatry, peer groups, or respite care—strengthens caregiving capacity rather than undermining it. Supporting caregivers is an intervention, not an indulgence.

Family dynamics become particularly complex in alcohol-related liver disease. Loved ones may carry anger, grief, guilt, or resentment alongside compassion and commitment. Trust may be fragile. Past conflicts can resurface under the strain of illness and transplant evaluation. These dynamics do not disqualify families from providing care, but they do require honesty, boundaries, and, at times, professional support to prevent burnout or fracture.

Transplant systems depend on families, yet often fail to care for them adequately. Recognizing caregiver stress, involving families as partners, and normalizing the need for support improves outcomes across the board.

When caregivers are supported, patients are safer. When families are heard, systems function better. Transplant care is not only about organs and procedures—it is about sustaining the people who hold the process together.



### Practical Tool: What Families Can Do When Mental Status Changes

When a patient with liver disease becomes confused, slowed, or “not quite themselves,” families are often the first to notice. Knowing what to ask and when to act can prevent serious complications.

Three Questions Families Should Ask

1. Is this different from their usual baseline?
2. Subtle changes matter. Slower responses, new irritability, poor attention, or sleep reversal can signal early brain dysfunction even if the patient seems “mostly okay.”
3. Did this change happen suddenly or gradually?
4. Sudden changes raise concern for delirium, infection, medication effects, or bleeding and warrant urgent evaluation. Gradual changes may suggest hepatic encephalopathy or progressive illness but still require assessment.
5. Has anything changed medically or environmentally?
6. New medications, missed doses, dehydration, constipation, infection, alcohol exposure, or recent hospitalization are common triggers for cognitive decline.

A Simple Bedside Cognition Check

A quick screening tool families can observe is the Animal Naming Test. Ask the patient to name as many animals as possible in one minute. Difficulty starting, early stopping, or a clear decline compared with prior attempts may indicate cognitive impairment. While not diagnostic, changes over time are meaningful and should be reported to the care team.

Warning Signs That Require Urgent Evaluation  
Seek immediate medical attention if any of the following occur:

- Marked confusion or disorientation
  - Inability to stay awake or sudden agitation
  - New hallucinations or paranoia
  - Slurred speech, weakness, or falls
  - Fever, vomiting, or signs of infection
  - Missed medications with worsening mental status
- Families are not expected to diagnose. Their role is recognition and advocacy. Trusting observations and acting early can prevent hospitalization, protect patient safety, and save lives.



## **Psychiatry–Transplant Intersection: What It Does and Why It Matters**

Psychiatry occupies a unique and essential position in liver transplantation, operating at the intersection of medical complexity, cognitive vulnerability, and human stress. Its role is often misunderstood, yet its contributions directly affect patient safety, ethical decision-making, and long-term outcomes.

### **How Psychiatry Contributes to Transplant Care**

Psychiatry's primary contribution is risk reduction. Advanced liver disease frequently affects cognition, mood, sleep, impulse control, and judgment. These changes may be subtle, fluctuating, or misattributed to personality or stress. Psychiatric involvement helps identify when brain-based illness is influencing behavior or decision-making and distinguishes reversible conditions from more persistent ones.

Psychiatrists also play a critical role in assessing decision-making capacity. Transplant consent is not a single event but an ongoing process that requires understanding, reasoning, and the ability to appreciate consequences. Conditions such as hepatic encephalopathy, delirium, severe depression, medication toxicity, or withdrawal can temporarily impair capacity. Psychiatry helps determine whether impairment is present, whether it is reversible, and how to support patients in participating meaningfully in their care.

In addition, psychiatry assists with diagnostic clarity. Confusion, agitation, withdrawal, or emotional lability in transplant patients may stem from multiple causes—medical, neurologic, psychiatric, or medication-related. Accurate differentiation prevents harm, avoids inappropriate sedation, and ensures timely treatment of underlying problems.

### **What Patients Should Expect From a Psychiatric Consult**

A transplant psychiatry consultation is not an interrogation or a test to pass. It is a clinical evaluation focused on understanding how illness, stress, and brain function are affecting the patient at that moment. Patients can expect questions about mood, sleep, anxiety, substance use history, coping strategies, social supports, and understanding of the transplant process.

The goal is not to judge past behavior, but to assess current stability and future support needs. Many consultations result in practical recommendations: adjusting medications, treating depression or anxiety, addressing sleep disruption, supporting abstinence, or involving caregivers more effectively. For patients with cognitive impairment, psychiatry often advocates for reassessment once reversible factors are treated, rather than premature conclusions.

### **How Mental Health Care Improves Transplant Outcomes**

Addressing mental health is not ancillary to transplant success—it is central to it. Untreated depression and anxiety are associated with poorer adherence, increased hospitalizations, and worse quality of life. Cognitive impairment increases the risk of medication errors and missed complications. Caregiver burnout undermines the support systems on which transplant care depends.

When psychiatric issues are identified early and managed thoughtfully, patients are more likely to adhere to complex regimens, engage with follow-up care, and recover psychologically as well as physically. Families feel supported rather than blamed. Teams communicate more effectively. Outcomes improve.

Psychiatry in transplantation is best understood not as a barrier, but as a safeguard—one that protects autonomy, enhances safety, and helps patients navigate one of the most demanding experiences in modern medicine.

## Physician Spotlight: Dr. Akhil Shenoy

### Psychiatry at the Interface of Liver Disease and Transplantation

Akhil Shenoy, MD, is a psychiatrist at NewYork-Presbyterian / Columbia University Irving Medical Center whose work exemplifies consultation-liaison psychiatry—psychiatric care embedded at the interface of medicine and surgery. His NewYork-Presbyterian physician profile lists board certification in Psychiatry and Psychosomatic Medicine, the historical board designation for consultation-liaison psychiatry. In transplant medicine, that distinction matters: the work is practical, medically integrated, and focused on safety and follow-through when physiology, cognition, and stress collide.

### Why Psychiatry Matters in Liver Disease and Transplantation

In advanced liver disease and transplantation, psychiatric care is not peripheral. The pathway is cognitively demanding and emotionally intense, marked by repeated evaluations, shifting clinical status, medication complexity, and prolonged

uncertainty. Psychiatric symptoms—sleep disruption, anxiety, depression, cognitive fluctuation—can materially affect outcomes, particularly adherence to appointments, laboratory monitoring, and medication regimens. High-quality, transplant-integrated psychiatry aims to identify treatable barriers early and strengthen the overall plan so that care holds even when the clinical picture becomes volatile.

Columbia's Consultation-Liaison Psychiatry Fellowship lists Dr. Shenoy among transplant faculty and describes him as a psychiatric consultant to Liver and Transplantation Services. The practical aim in transplant care is clarity and stability: symptom control, adherence support, relapse-risk mitigation when relevant, and reliable coordination across the team.

### Training and Academic Appointment

ColumbiaDoctors lists Dr. Shenoy's postgraduate training as an internship and residency at Boston University Medical Center, followed by fellowship training at Brigham and Women's Hospital—a background aligned with complex hospital-based care where psychiatric symptoms are shaped by severe illness, perioperative stress, medication effects, and changing organ function. He holds an academic appointment as Assistant Professor of Psychiatry at Columbia University Irving Medical Center. For medical school, third-party physician directories commonly list the Chicago Medical School at Rosalind Franklin University of Medicine and Science; as with all credentials, institutional sources should be used for formal verification.

### Clinical Expertise in a Transplant Context

NewYork-Presbyterian lists Dr. Shenoy's clinical expertise across core psychiatric conditions and modalities, including depression, anxiety disorders, insomnia, obsessive-compulsive disorder, panic disorder, psychosis, adjustment disorders, psychotherapy, and psychopharmacology. In transplant care, these competencies translate into several high-yield themes:

- Sleep and circadian stabilization to protect cognition and resilience during prolonged medical stress.
- Depression and demoralization treatment to improve engagement and follow-through when monitoring intensifies.
- Severe anxiety and panic management to support decision-making and procedural tolerance.
- Hospital-based syndromes (agitation, confusion) requiring urgent evaluation for delirium and medical contributors.
- Psychotherapy focused on coping, identity disruption, family alignment, and sustained engagement.

The most valuable mental-health plans in transplant care are often the most practical: clear next steps, specific contacts, and shared expectations that hold during clinical volatility.

### Transplant Psychiatry: Role and Focus

An Academy of Consultation-Liaison Psychiatry presenter biography describes Dr. Shenoy as Director of Transplant Psychiatry at CUIMC, specializing in psychiatric care for liver transplant recipients and donors, with interests including alcohol use disorder and psychosocial outcomes in transplantation. Within transplant programs, psychiatry commonly addresses:

- Pre-transplant evaluation: symptom review, risk assessment, and treatment plans that support readiness and adherence.
- Relapse-risk mitigation (when relevant): treatment linkage, monitoring, and concrete support systems.
- Donor and recipient psychosocial assessment: motivation, coercion risk, coping capacity, and post-procedure expectations.
- Capacity and informed consent: decision quality under stress, pain, or cognitive fluctuation.
- Inpatient stabilization: delirium prevention/treatment planning and management of severe anxiety or depression during admissions.
- Post-transplant adjustment: rebuilding routine, identity, and long-term engagement.



Dr. Akhil Shenoy

## **Alcohol Exposure: What “How Much” Means Clinically**

Patients often ask, “How much is too much?” Clinically, risk depends on both amount and pattern. Public-health definitions help anchor conversations: binge drinking typically refers to about five or more drinks for men or four or more drinks for women in roughly two hours; heavy drinking refers to weekly patterns above established thresholds. These are not “safe” levels—particularly for anyone with known liver disease. Pour sizes vary, so counting standard drinks matters. In cirrhosis or alcohol-associated hepatitis, “cutting back” is often insufficient; many teams recommend abstinence to reduce decompensation risk and protect transplant eligibility.

## **Hepatic Encephalopathy: Clearing Common Confusion**

Hepatic encephalopathy (HE) is brain dysfunction related to liver failure and/or portosystemic shunting and is fundamentally a clinical diagnosis. The gold standard for overt HE is a meaningful change in mental status, often best recognized by family, supported by bedside findings in the right clinical context. Two misunderstandings are common: elevated ammonia does not by itself prove HE, and not all confusion in cirrhosis is HE. Bedside tools such as the Animal Naming Test can help screen cognition over time, while imaging and labs are typically used to rule out dangerous mimics. The most actionable concept in practice is identifying precipitating events—infection, gastrointestinal bleeding, constipation, dehydration, electrolyte disturbances, renal failure, sedatives, or increased shunting—because treating triggers often reverses episodes.

## **What Patients Can Expect—and What to Ask**

A transplant-linked psychiatric visit is structured and medically informed: mood, anxiety, sleep, cognition, medication review, and—when relevant—substance-use history, framed around safety and successful follow-through. Coordination with the transplant team is integral. Practical questions patients and families can ask include:

- “If mental status changes, what is the fastest way to reach the team?”
- “What are my most likely HE triggers, and what is our prevention plan?”
- “Do you use quick screens like animal naming to track cognition over time?”
- “Which medications should I avoid because they can worsen confusion?”
- “If relapse risk is relevant, what is the treatment and monitoring plan?”

Bottom line: Dr. Shenoy’s work reflects the value of transplant-integrated psychiatry—precise diagnosis, practical treatment, and coordination that protects cognition, supports adherence, and improves outcomes across the transplant journey.

**Medical Disclaimer: This page is for educational purposes only and does not constitute medical advice, diagnosis, or treatment, nor does it create a physician-patient relationship. Seek urgent evaluation for new or worsening confusion, severe sleepiness, fever, vomiting blood, black stools, severe abdominal pain, or any medical emergency.**

# Recipe Time

## Health Benefits of Salmon

Salmon is widely regarded as one of the most health-promoting protein sources, particularly for brain, heart, and metabolic health. Its benefits are especially relevant for individuals with chronic illness, liver disease, or recovery after major medical stress.

One of salmon's most important attributes is its high content of omega-3 fatty acids, particularly EPA and DHA. These fats are essential for brain structure and function, supporting memory, attention, and mood regulation. Omega-3s also reduce neuroinflammation, which is increasingly recognized as a contributor to cognitive impairment and mood disorders. For patients vulnerable to confusion, fatigue, or depression, this anti-inflammatory effect is clinically meaningful.

Salmon is also a source of high-quality, easily digestible protein, which supports muscle maintenance, immune function, and wound healing without excessive metabolic burden. Adequate protein intake is critical for recovery, yet many patients struggle to meet needs safely; salmon provides a nutrient-dense option without added sugars or refined carbohydrates.

In addition, salmon contains vitamin D, which plays a role in bone health, immune regulation, and mood stability. Vitamin D deficiency is common in chronic disease and after prolonged hospitalization. Salmon also provides B vitamins, including B12, which supports nerve health and cognitive function.

From a cardiovascular perspective, salmon helps reduce triglyceride levels, supports healthy blood vessels, and lowers systemic inflammation. These effects are important for overall longevity and organ protection.

Finally, salmon is naturally low in sodium and free of additives when prepared simply, making it appropriate for medically restricted diets. When baked, grilled, or steamed, it delivers substantial nutritional benefit with minimal risk.

In summary, salmon supports brain health, physical recovery, and systemic resilience—making it a valuable component of a balanced, health-focused diet.



## Brain-Healthy Salmon & Quinoa Bowl

Liver-friendly, transplant-appropriate

This recipe is designed for people with liver disease or after liver transplant. It emphasizes brain health, anti-inflammatory nutrition, and digestibility, while avoiding excess sodium, alcohol, and ultra-processed ingredients.

Why this works

- Salmon provides omega-3 fatty acids that support cognition and reduce inflammation.
- Quinoa supplies steady energy and complete protein without stressing the liver.
- Leafy greens and vegetables support gut-brain health and micronutrient balance.
- Olive oil and lemon provide healthy fats and flavor without sodium overload.

Ingredients (Serves 2)

Protein

- 2 salmon fillets (4–5 oz each), skinless
- 1 tablespoon extra-virgin olive oil
- ½ teaspoon garlic powder
- ½ teaspoon turmeric
- Fresh black pepper to taste
- Lemon slices

Grain

- 1 cup cooked quinoa (rinsed well before cooking)

Vegetables

- 1 cup baby spinach or arugula
- ½ cup steamed broccoli florets
- ½ cup roasted or steamed carrots
- ¼ avocado, sliced (optional, if potassium is permitted)

Simple Dressing

- 1 tablespoon olive oil
- 1 tablespoon fresh lemon juice
- Optional: fresh parsley or dill

Instructions

1. Prepare the salmon
2. Preheat oven to 375°F (190°C). Place salmon on parchment-lined baking sheet.
3. Brush lightly with olive oil, sprinkle with garlic powder, turmeric, and pepper.
4. Top with lemon slices.
5. Bake
6. Bake for 12–15 minutes until salmon flakes easily. Avoid overcooking to preserve omega-3s.
7. Assemble the bowl
8. Divide quinoa between two bowls. Add greens, broccoli, carrots, and avocado if allowed.
9. Finish
10. Place salmon on top. Drizzle lightly with lemon-olive oil dressing. Add herbs if desired.

Transplant-Specific Notes

- Low sodium: No added salt; flavor comes from herbs and acid.
- Medication-safe: Avoids grapefruit and herbal supplements.
- Brain support: Omega-3s + steady glucose = cognitive protection.
- Digestive friendly: Soft textures and simple ingredients reduce GI stress.



### NUTRITION FACTS (APPROXIMATE)

BRAIN-HEALTHY SALMON & QUINOA BOWL – PER SERVING

CALORIES:

~520 KCAL

PROTEIN:

~32 G

- SUPPORTS MUSCLE MAINTENANCE, IMMUNE FUNCTION, AND RECOVERY

TOTAL FAT:

~24 G

- OMEGA-3 FATTY ACIDS (EPA + DHA): ~1.5–2.0 G

- SATURATED FAT: ~4 G

- UNSATURATED FATS (MONO + POLY): ~18–20 G

- SUPPORTS BRAIN HEALTH AND REDUCES INFLAMMATION

CARBOHYDRATES:

~42 G

- STEADY ENERGY SUPPLY FOR THE BRAIN

- LOW GLYCEMIC LOAD

DIETARY FIBER:

~9 G

- SUPPORTS GUT HEALTH AND HELPS REDUCE AMMONIA PRODUCTION

SUGARS:

~3–4 G (NATURALLY OCCURRING, NO ADDED SUGAR)

SODIUM:

~150 MG (NO ADDED SALT)

KEY MICRONUTRIENTS

- VITAMIN B12: COGNITIVE AND NERVE SUPPORT

- VITAMIN D: IMMUNE AND MOOD REGULATION

- FOLATE: BRAIN AND VASCULAR HEALTH

- MAGNESIUM: NEUROMUSCULAR FUNCTION AND SLEEP

- POTASSIUM: CELLULAR FUNCTION (ADJUST IF RESTRICTED)

CLINICAL SUMMARY

THIS MEAL PROVIDES A BALANCED MACRONUTRIENT PROFILE WITH:

- HIGH-QUALITY PROTEIN

- BRAIN-PROTECTIVE FATS

- LOW SODIUM

- MODERATE CARBOHYDRATES

- ADEQUATE FIBER

IT IS APPROPRIATE FOR LIVER DISEASE, PRE-TRANSPLANT, AND POST-TRANSPLANT NUTRITION, WITH EASY PORTION MODIFICATION BASED ON CLINICAL GUIDANCE.

STRONGEST  
MINDS ARE OFTEN  
THOSE WHOM THE  
NOISY WORLD  
HEARS LEAST.

WILLIAM WORDSWORTH  
EST. 2011 V. 001111

I wandered once beside a quiet stream,  
Where willows leaned to hear their shadows  
speak,  
And there I felt, as if the earth itself  
Had paused to listen to the inward self.  
For hidden deep, beneath the ribs' soft guard,  
The liver toiled in silence, faithful, stern,  
A humble steward of the body's fire,  
Turning excess to balance, harm to calm.  
Yet as that organ faltered, so too strayed  
The pathways of the mind from reason's light.  
Thought wandered like a mist across the hills,  
Memory loosened its accustomed hold,  
And words, once certain, trembled into doubt.  
I saw then how no boundary divides  
The flesh from thought, the organ from the  
soul;  
They are companions in a single walk.  
O gentle brain, so quick to judge itself,  
How little do we grant thee charity,  
When chemistry conspires against thy peace.  
The liver speaks in whispers to the mind,  
In sleepless nights, in sudden fog of noon,  
In moods that darken like an unseen cloud.  
Yet hope abides, as springtime always does.  
For when the blood runs clear, the thoughts  
grow still,  
And calm returns as birdsong after rain.  
Thus body heals the mind, and mind the flesh,  
In mutual care, ordained by nature's law—  
A lesson learned beside the patient stream,  
Where silence teaches what the tongue forgets.



WILLIAM WORDSWORTH