



Metabolic Psychiatry Workbook

A practical guide to supporting brain and metabolic health alongside standard psychiatric care

How to use this workbook

Metabolic psychiatry looks at the two-way relationship between mental health and metabolic health. It does not assume that every psychiatric symptom is caused by metabolism, and metabolic interventions are not replacements for evidence-based psychiatric treatment. Instead, they can be considered as part of an individualized plan that may include medication, psychotherapy, sleep, movement, nutrition, substance-use reduction, and medical care.

Important: Ketogenic metabolic therapy for psychiatric conditions remains an emerging area. Early trials are promising, but larger controlled studies are still needed. Do not stop or reduce psychiatric medications on your own.

1. What Is Metabolic Psychiatry?

Metabolic psychiatry is an emerging clinical framework that studies how processes such as insulin signaling, glucose and lipid metabolism, mitochondrial energy production, inflammation, sleep/circadian rhythms, nutrition, activity, and medication-related metabolic effects may interact with brain function and psychiatric symptoms.

Why this matters

- People receiving psychiatric care have high rates of obesity, insulin resistance, diabetes, dyslipidemia and cardiovascular risk.
- Some psychiatric medications can affect appetite, weight, glucose and lipids; untreated psychiatric illness can also disrupt sleep, activity and nutrition.
- The goal is to improve whole-person health while continuing appropriate psychiatric treatment.

Easy-to-understand mechanism

Think of the brain as an energy-demanding organ. Brain cells need a reliable fuel supply and healthy cellular 'power plants' called mitochondria. Metabolic interventions may influence insulin signaling, inflammation, oxidative stress, neurotransmitter balance and mitochondrial function. A ketogenic diet also produces ketones, an alternative fuel that the brain can use. These mechanisms are biologically plausible, but we do not yet know which mechanism matters most for each psychiatric condition.

2. Ketogenic Metabolic Therapy: The Basics

A ketogenic diet is a very-low-carbohydrate dietary pattern designed to produce nutritional ketosis. Ketosis means the liver is making ketones from fat and blood ketone levels rise above usual mixed-diet levels.

A common outpatient starting range

- Many adult ketogenic programs begin around **20-50 grams of net carbohydrate per day**, but the prescription should be individualized.
- Net carbohydrate is commonly calculated as **total carbohydrate minus fiber**. Food-label rules differ, so review your tracking method with your clinician or dietitian.
- Protein should be adequate for health and lean mass. Fat supplies much of the remaining energy; ketogenic therapy does not require unlimited added fat.
- Favor minimally processed foods: eggs, fish, poultry/meat or other protein sources, olive oil, avocado, nuts/seeds, non-starchy vegetables, and unsweetened foods.

Foods commonly limited

- Sugar, candy, sweetened drinks and desserts
- Bread, rice, pasta, cereal, crackers and most flour-based foods
- Potatoes and other high-starch foods
- Juice and large portions of high-sugar fruit
- Hidden carbohydrates in sauces, dressings, flavored yogurt, beverages and packaged foods

Your individualized carbohydrate target

Daily net carbohydrate goal: _____ grams

3. How Do I Track Carbohydrates?

Step 1: Read the serving size. Step 2: Find total carbohydrate. Step 3: Identify fiber. Step 4: Calculate net carbohydrate using the method recommended by your care team. Step 5: record the amount actually eaten.

Practice

Example: A food contains 12 g total carbohydrate and 7 g fiber per serving. Using the common net-carb method, that serving contains 5 g net carbohydrate.

Time	Food / amount	Total carb	Fiber	Net carb	Running daily total

Helpful tracking tips

- Measure portions during the learning phase; estimating becomes easier with practice.
- Pre-plan meals when possible so the day's carbohydrate budget is not used unexpectedly.
- Do not let tracking become punitive. Tell your clinician if food logging increases anxiety, guilt, restriction, bingeing or obsessive behavior.

4. How Do I Know If I Am in Ketosis?

Ketosis can be assessed with blood, urine or breath testing. For therapeutic ketogenic programs, blood beta-hydroxybutyrate (BHB) is often the most direct home measure. Urine strips are inexpensive but can become less informative after adaptation. Breath devices measure acetone and can show trends but are device-dependent.

Testing principles

- Use the same method and a similar time of day when tracking trends.
- Record ketones with symptoms, sleep, food intake and medications rather than chasing a single number.
- A higher ketone reading is not automatically better. Your clinical response and safety matter more than maximizing ketones.
- Your clinician may set an individualized target. Do not use prolonged fasting, dehydration or excessive fat intake simply to increase a ketone reading.

Date/time	Method	Ketone result	Glucose (if instructed)	How I felt / notes

Ketosis is not the same as diabetic ketoacidosis (DKA). DKA is a medical emergency, usually involving marked hyperglycemia and metabolic acidosis. People with diabetes - especially those using insulin or SGLT2 inhibitors - require clinician-directed planning before carbohydrate restriction.

5. How Will We Measure Progress?

Progress should be measured across psychiatric symptoms, daily function, metabolic health, tolerability and quality of life - not just weight or ketone levels.

Possible baseline and follow-up measures

- Mood, anxiety, psychosis, attention/cognition, sleep and functioning using diagnosis-appropriate validated scales.
- Medication doses, side effects, adherence, hospitalizations/urgent visits and ability to participate in work, school, relationships and self-care.
- Weight, BMI, waist circumference and blood pressure when appropriate.
- Labs individualized to the patient, commonly including glucose or A1c and fasting lipids; clinicians may also consider CMP, CBC and other tests based on medications, medical history and ketogenic-therapy monitoring.
- Diet adherence, carbohydrate intake, ketones when clinically useful, hydration, bowel function and adverse effects.

My measure	Baseline	Goal / meaningful change	Follow-up
Sleep			
Mood / symptoms			
Daily functioning			
Weight / waist (if relevant)			
A1c / glucose			
Triglycerides / lipids			
Other: _____			

6. Can I Come Off My Psychiatric Medications?

Maybe for some patients, but that is never guaranteed and is not the initial goal. The safest approach is to treat ketogenic therapy as an adjunct while monitoring response. If sustained improvement occurs, medication changes can be considered collaboratively and one step at a time.

Why medication changes require supervision

- Abruptly stopping antidepressants, antipsychotics, mood stabilizers, benzodiazepines or other psychiatric medications can cause withdrawal, rebound symptoms or relapse.
- Improved metabolism or reduced carbohydrate intake can change appetite, hydration, blood pressure, glucose and medication needs.
- For people with bipolar-spectrum or psychotic disorders, relapse can have serious consequences; medication reduction should be conservative and based on sustained stability.
- Never reduce medication simply because ketones are present.

My medication questions

Medications I hope to discuss with my clinician:

What would 'stable enough to consider a change' look like for me?

7. What Conditions Are Being Studied?

Metabolic psychiatry is broader than ketogenic therapy. Research is examining metabolic interventions across multiple psychiatric conditions. Evidence strength varies substantially.

Areas of active interest

- **Schizophrenia-spectrum and bipolar disorders:** early clinical studies of ketogenic therapy have reported encouraging psychiatric and metabolic signals, including a small 4-month single-arm pilot trial. These findings require confirmation in larger randomized trials.
- **Depressive disorders:** nutritional, exercise, sleep and metabolic interventions are relevant to overall health; ketogenic-specific psychiatric evidence remains developing.
- **Other areas:** anxiety, cognition, neurodevelopmental conditions and other psychiatric presentations are being investigated, but evidence is not sufficient to promise a therapeutic effect.
- **Metabolic syndrome associated with psychiatric illness or treatment:** lifestyle intervention and evidence-based medical treatment of obesity, dyslipidemia, hypertension and diabetes are important regardless of whether psychiatric symptoms improve.

A useful expectation

The goal is not to find a single diet that 'cures' mental illness. The goal is to identify safe, measurable interventions that improve metabolic health and determine whether psychiatric symptoms and functioning improve alongside it.

8. Side Effects, Concerns & Contraindications

Common early concerns can include headache, fatigue, dizziness, nausea, constipation, muscle cramps, reduced exercise tolerance, hunger or appetite changes. Lipids may change, and some individuals experience increases in LDL cholesterol. Kidney stones, nutrient inadequacy and other complications are possible, especially with long-term or poorly supervised therapy.

Extra medical review is important before starting if you have:

- Diabetes treated with insulin, sulfonylureas or SGLT2 inhibitors; history of DKA or recurrent hypoglycemia.
- Pregnancy, breastfeeding, significant kidney, liver, pancreatic or gallbladder disease.
- Known disorders of fat metabolism or other inborn metabolic disease.
- History of kidney stones, severe hyperlipidemia or significant cardiovascular risk.
- Active or past eating-disorder symptoms, severe food restriction, binge/purge behavior, or significant anxiety/obsession around food.
- Any condition or medication that may make dehydration, electrolyte shifts or reduced oral intake dangerous.

Call your clinician promptly for

- Persistent vomiting, inability to maintain fluids, severe weakness or fainting
- Marked mood elevation, rapidly reduced need for sleep, worsening depression, suicidality, new/worsening paranoia or hallucinations
- Symptoms of hypoglycemia or concerning glucose/ketone readings if you have diabetes
- Severe abdominal pain, confusion, chest pain or other acute medical symptoms

Emergency: If you cannot stay safe, have suicidal intent, severe confusion, or another medical/psychiatric emergency, call 911 or go to the nearest emergency department. In the U.S., call or text 988 for the Suicide & Crisis Lifeline.

9. Getting Started: My First 2 Weeks

Week 0 - Prepare

- Review medical history, medications and baseline measurements with your care team.
- Choose your carbohydrate target and tracking method.
- Plan several simple breakfasts, lunches and dinners.
- Buy a ketone-testing method only if your care plan calls for it.
- Identify a support person and plan for challenging situations.

Week 1 - Learn

- Track carbohydrates consistently.
- Prioritize hydration and adequate food intake.
- Record sleep, mood, energy, bowel habits and side effects.
- Keep medication doses unchanged unless your prescriber instructs otherwise.

Week 2 - Review patterns

- Look at trends rather than individual 'good' or 'bad' days.
- Review carbohydrate intake and ketone trends if testing.
- Discuss adverse effects and barriers.
- Adjust the plan with your care team rather than becoming more restrictive on your own.

My three reasons for trying this approach:

My biggest anticipated barrier and my plan:

10. Daily Metabolic Psychiatry Log

Date	Sleep hrs	Net carbs	Ketones*	Mood 0-10	Energy 0-10	Symptoms / function / notes

*Only if ketone testing is part of your individualized plan.

Weekly reflection

What improved?

What became harder?

Questions for my next appointment:

11. Frequently Asked Questions

Do I have to eat bacon, butter and cheese all day?

No. A ketogenic diet can emphasize unsaturated fats, fish, avocado, olive oil, nuts/seeds, adequate protein and non-starchy vegetables.

Do I need supplements?

Not automatically. Needs vary by diet quality, medications, labs and medical history. Electrolytes and micronutrients should be individualized.

Do I need to fast?

No. Fasting is not required to begin ketogenic therapy and may be inappropriate for some patients.

What if I eat more carbohydrates than planned?

Resume the agreed plan at the next meal. Avoid punishment, prolonged fasting or extreme restriction.

Is weight loss required?

No. Metabolic and psychiatric goals may include sleep, symptoms, function, insulin sensitivity, triglycerides, waist circumference or medication tolerability. Weight is only one possible measure.

How long until I know whether it helps?

There is no established psychiatric response timeline. Your care team should define a reasonable monitored trial and assess both benefit and burden.

What if my symptoms worsen?

Contact your psychiatric clinician. Significant insomnia, mania-like symptoms, psychosis, suicidality or marked functional decline should not be attributed to 'adaptation' without assessment.

My questions

Write questions to bring to your next visit:

12. Helpful Tips for Success

- Keep meals simple at first. Repeating a few reliable meals can make carbohydrate tracking easier.
- Do not chase perfect ketone numbers. Aim for a sustainable plan and measurable health outcomes.
- Protect sleep. A major change in sleep can be an early warning sign of psychiatric destabilization.
- Plan for restaurants, travel, holidays and stressful days before they happen.
- Use curiosity rather than judgment when reviewing your log.
- Tell your care team about supplements, fasting, major weight changes and all medication changes.
- Include physical activity, social connection, psychotherapy and other evidence-based treatments - metabolic psychiatry is not diet alone.

My SMART goal for the next 2 weeks

Specific goal:

How I will measure it:

What support I need:

13. Evidence & Further Reading

The evidence base for metabolic psychiatry is rapidly evolving. The 2026 Nature Mental Health review describes strong links between psychiatric illness and systemic metabolic abnormalities and reviews interventions ranging from exercise and pharmacologic metabolic treatments to ketogenic metabolic therapy, while emphasizing that evidence levels differ and several approaches remain preliminary. A 2024 pilot trial in 23 adults with schizophrenia or bipolar disorder and metabolic abnormalities reported improvements in both metabolic and psychiatric measures during a 4-month ketogenic intervention; because it was small and single-arm, it should be viewed as promising rather than definitive.

Selected references supplied for this workbook

Sethi, S., Berk, M., Andreazza, A. C., et al. (2026). Metabolic psychiatry targeting metabolic dysregulation in mental health. *Nature Mental Health*, 4, 508-520.

Barch, D. M. (2023). Special Section: Metabolic Psychiatry. *Biological Psychiatry Global Open Science*, 3(4), 580-581.

Sethi, S., Wakeham, D., Ketter, T., et al. (2024). Ketogenic diet intervention on metabolic and psychiatric health in bipolar and schizophrenia: a pilot trial. *Psychiatry Research*, 335, 115866.

Barton, B. B., Zagler, A., Engl, K., Rihs, L., & Musil, R. (2020). Prevalence of obesity, metabolic syndrome, diabetes and risk of cardiovascular disease in a psychiatric inpatient sample. *European Archives of Psychiatry and Clinical Neuroscience*, 270(5), 597-609.

Mudra Rakshasa-Loots, A., Campbell, J., Campbell, I. H., & Smith, D. J. (2025). Metabolic psychiatry: key priorities for an emerging field. *Nature Mental Health*, 3(8), 855-858.

Cervenka, M. C., Wood, S., Bagary, M., et al. (2021). International recommendations for the management of adults treated with ketogenic diet therapies. *Neurology: Clinical Practice*, 11(5), 385-397.

Patient education notice: This workbook is for education and shared decision-making. It does not replace individualized medical advice, diagnosis, psychotherapy, medication management, or nutrition care.

CareSync Psych
www.caresyncpsych.com