

Diet & Mental Health

A Research Compilation on Ketogenic & Mediterranean Diets

A curated collection of peer-reviewed studies, clinical trials,
and authoritative reviews examining the relationship between
dietary patterns and mental health outcomes.

Compiled: August 12, 2026

7 Articles Reviewed

Table of Contents

- 1.** Effect of Mediterranean Diet on Mental Health Outcomes
Cambridge / Nutrition Research Reviews (2026)
- 2.** Could a Change in Diet Improve Mental Health? Metabolic Psychiatry, Explained
National Geographic (2026)
- 3.** What Current Research Really Says About Ketogenic Diets and Brain Health
ACSH (2026)
- 4.** The Ketogenic Diet as a Transdiagnostic Treatment for Neuropsychiatric Disorders
Current Treatment Options in Psychiatry, Springer (2024)
- 5.** Ketogenic Diet for Mood Disorders: From Animal Models to Clinical Application
Journal of Neural Transmission, Springer (2023)
- 6.** A Ketogenic Diet for Treatment-Resistant Depression: A Randomized Clinical Trial
JAMA Psychiatry (2026)
- 7.** Keto Therapy: Unveiling the Potential of Ketogenic Diet in Psychiatric Care
Nutrition / ScienceDirect (2025)

Article 1: Effect of Mediterranean Diet on Mental Health Outcomes

Type: Systematic Review
Author(s): Kabthymmer RH, Karimi L, Livesay K, Lee M, Apostolopoulos V, Millar R, et al., de Courten B
Journal/Source: Nutrition Research Reviews, Cambridge University Press / The Nutrition Society
Year: 2026
Volume/Issue: Vol. 39, Article e9, pp. 1-23
DOI: 10.1017/S0954422425100243
Diet Focus: Mediterranean Diet

Summary:

This comprehensive systematic review synthesizes evidence from 104 eligible studies (88 observational and 16 interventional) drawn from a primary search yielding 10,249 articles across MEDLINE, PsycINFO, Scopus, Cochrane Library, Google Scholar, CINAHL, and Embase.

Key Findings: Adherence to the Mediterranean diet (MedDiet) was consistently associated with favourable mental health outcomes in adult populations, including reduced depressive and anxiety symptoms, lower perceived stress, and improved quality of life and overall psychological well-being -- both in healthy individuals and those with comorbidities across diverse geographical settings. Longitudinal and interventional study designs predominantly supported a protective role of MedDiet, while cross-sectional studies showed greater inconsistencies.

Proposed Mechanisms: The benefits are attributed to the anti-oxidant and anti-inflammatory potential of the MedDiet, modulation of the gut-brain axis, and improvements in metabolic health markers. The review concludes that MedDiet integration into comprehensive mental health treatment plans warrants further investigation with standardized dietary and psychological assessment tools.

Citation: Kabthymmer RH, Karimi L, Livesay K, Lee M, Apostolopoulos V, et al., & de Courten B. (2026). Effect of Mediterranean diet on mental health outcomes: a systematic review. Nutrition Research Reviews, 39, e9, 1-23. <https://doi.org/10.1017/S0954422425100243>

Article 2: Could a Change in Diet Improve Mental Health? Metabolic Psychiatry

Type: Science Journalism / Expert Commentary
Author(s): Meryl Davids Landau
Journal/Source: National Geographic
Year: 2026
Volume/Issue: Published August 3, 2026
DOI: N/A (online article)
Diet Focus: Ketogenic Diet / Metabolic Psychiatry

Summary:

This National Geographic feature introduces the emerging field of metabolic psychiatry and its exploration of

dietary interventions -- particularly the ketogenic diet (KD) -- as treatments for mental health conditions including bipolar disorder, schizophrenia, depression, and Alzheimer's.

Key Findings: The article draws on expert commentary from Dr. Shebani Sethi (Stanford University) and Dr. Georgia Ede, highlighting how impaired brain-energy metabolism -- specifically the brain's reduced ability to burn glucose -- may underlie serious psychiatric conditions. The KD, which induces ketosis and causes the liver to produce ketones as an alternative brain fuel, may bypass this metabolic deficit. Patient case reports describe remarkable improvement in mood stability.

Context: Psychiatric research dating to the 1920s has linked impaired brain-energy metabolism with mental illness; newer research published in *Nature Mental Health* supports the idea that systemic and central metabolic abnormalities influence brain function and behavior. The article notes that while promising, the data remain limited and clinical evidence is still accumulating.

Citation: Landau, M. D. (2026, August 3). Could a change in diet improve mental health? Metabolic psychiatry, explained. National Geographic. <https://www.nationalgeographic.com>

Article 3: What Current Research Really Says About Ketogenic Diets and Brain Health

Type:	Science Commentary / Practitioner Review
Author(s):	Shebna Osanmoh
Journal/Source:	American Council on Science and Health (ACSH)
Year:	2026
Volume/Issue:	Published August 11, 2026
DOI:	N/A (online article)
Diet Focus:	Ketogenic Diet

Summary:

This ACSH commentary provides a balanced, clinically grounded overview of the state of evidence regarding the ketogenic diet and brain/mental health, authored from a practitioner's perspective.

Key Findings: The article affirms that while the KD has a century-long history treating drug-resistant epilepsy -- establishing that dietary change can measurably alter brain electrical behavior -- its application to psychiatric conditions such as bipolar disorder, schizophrenia, depression, and cognitive decline remains preliminary. A small Stanford-led pilot trial has produced promising results with plausible biological mechanisms, including improvements in mitochondrial function, insulin signaling, and neuroinflammation.

Clinical Caution: The author explicitly cautions against patients with serious, treatable mental illnesses replacing effective medications with dietary interventions based on anecdotal evidence. The emerging field of metabolic psychiatry -- examining how the brain's energy use, mitochondrial function, and nutrition influence mental health -- is described as genuinely interesting but not yet ready for broad clinical translation without further rigorous study.

Citation: Osanmoh, S. (2026, August 11). What current research really says about ketogenic diets and brain health. American Council on Science and Health. <https://www.acsh.org>

Article 4: The Ketogenic Diet as a Transdiagnostic Treatment for Neuropsych

Type:	Literature Review
Author(s):	Multiple authors (Springer, Current Treatment Options in Psychiatry)
Journal/Source:	Current Treatment Options in Psychiatry, Springer Nature
Year:	2024
Volume/Issue:	Springer Nature Link
DOI:	Available via Springer Nature Link
Diet Focus:	Ketogenic Diet

Summary:

This Springer review presents the ketogenic diet as a transdiagnostic treatment framework addressing shared metabolic pathways across multiple psychiatric conditions.

Key Findings: Clinical trials and case reports reviewed cover schizophrenia/schizoaffective disorder, bipolar disorder, depression, anxiety disorders, Alzheimer's disease, autism spectrum disorder, somatic disorders, eating disorders, and alcohol use disorder. The majority of reviewed patients displayed improvement in psychiatric symptoms as measured by validated scales such as the PANSS, Clinical Global Impression, and Hamilton Depression Rating Scale (HAM-D).

Mechanisms: The KD may improve mitochondrial function, reduce oxidative stress and neuroinflammation, enhance brain energy metabolism, increase inhibitory GABA neurotransmission, and decrease excitatory glutamate -- collectively addressing metabolic dysfunction that underlies diverse psychopathological presentations. The review proposes the KD as a viable non-pharmacological treatment option that could ease the global disease burden of neuropsychiatric disorders.

Citation: Author(s). (2024). The ketogenic diet as a transdiagnostic treatment for neuropsychiatric disorders: Mechanisms and clinical outcomes. *Current Treatment Options in Psychiatry, Springer*. <https://link.springer.com>

Article 5: Ketogenic Diet for Mood Disorders: From Animal Models to Clinical

Type:	Peer-Reviewed Review Article
Author(s):	Smolensky IV, Zajac-Bakri K, Gass P, Inta D
Journal/Source:	Journal of Neural Transmission, Springer
Year:	2023
Volume/Issue:	Published online March 21, 2023
DOI:	10.1007/s00702-023-02620-x
Diet Focus:	Ketogenic Diet

Summary:

This peer-reviewed review synthesizes preclinical and early clinical evidence on the ketogenic diet for major depressive disorder (MDD) and bipolar disorder (BD), with a particular focus on sex-specific effects -- an understudied area given that women have twice the prevalence of mood disorders.

Key Findings: Mood disorders such as MDD and BD are frequently resistant to current pharmacological treatment, motivating investigation of dietary alternatives. Ketone bodies improve mitochondrial function and suppress oxidative stress, producing neuroprotective and anti-inflammatory effects beneficial for mental health. Limited evidence also suggests KD improves monoaminergic circuits and modulates the hypothalamus-pituitary-adrenal (HPA) axis -- key pathophysiological pathways in mood disorders.

Gut-Brain Axis: The gut microbiome is identified as an important mediator of dietary effects on brain function and mental health; microbiota composition is altered in mood disorders, though the therapeutic mechanisms of different diets (including KD) on this axis remain poorly understood. Animal models suggest ketone supplementation reduces anxiety behaviors, and the authors identify sex-stratified clinical research as a priority area.

Citation: Smolensky IV, Zajac-Bakri K, Gass P, & Inta D. (2023). Ketogenic diet for mood disorders from animal models to clinical application. Journal of Neural Transmission, 130, 759-774. <https://doi.org/10.1007/s00702-023-02620-x>

Article 6: A Ketogenic Diet for Treatment-Resistant Depression: A Randomiz

Type:	Randomized Clinical Trial (RCT)
Author(s):	Gao M, Kirk M, Knight H, Lash E, Michalopoulou M, Guess N, Stevens R, Browning M, Weich S, Burnet PWJ, Jebb SA, Aveyard P
Journal/Source:	JAMA Psychiatry, JAMA Network
Year:	2026
Volume/Issue:	Vol. 83, pp. 331-340
DOI:	10.1001/jamapsychiatry.2025.4431
Diet Focus:	Ketogenic Diet

Summary:

This single-blind RCT (NCT06091163) -- the first well-controlled randomized clinical trial of the ketogenic diet for treatment-resistant depression (TRD) -- was conducted February-June 2024 in the UK with 88 participants (mean age 42.1 years; 69% women) scoring ≥ 15 on the PHQ-9.

Design: Participants were randomized 1:1 to either: (1) a 6-week KD with $<30\text{g}$ carbohydrates/day and weekly individual dietetic support, or (2) a control (phytochemical 'phyto') diet adding one extra serving of vegetables/fruit and replacing saturated fats with unsaturated fats, with matched dietetic support. Follow-up extended to 12 weeks.

Results: Depression severity decreased markedly in both groups. Mean PHQ-9 change at 6 weeks: -10.5 (SD 7.0) in the KD group vs. -8.3 (SD 5.1) in the phyto group. Between-group difference at 6 weeks: -2.18 (95% CI:

-4.33 to -0.03; $P=0.05$; Cohen's $d = -0.68$). No differences in secondary outcomes (anxiety, anhedonia, quality of life). No serious adverse events occurred.

Conclusion: The KD showed statistically significant antidepressant benefits vs. control at 6 weeks, but clinical relevance is uncertain given the modest effect size. Notably, participants did not relapse after support ended, suggesting potentially durable benefits.

Citation: Gao M, Kirk M, Knight H, Lash E, Michalopoulou M, Guess N, Stevens R, Browning M, Weich S, Burnet PWJ, Jebb SA, & Aveyard P. (2026). A ketogenic diet for treatment-resistant depression: A randomized clinical trial. JAMA Psychiatry, 83, 331-340. <https://doi.org/10.1001/jamapsychiatry.2025.4431>

Article 7: Keto Therapy: Unveiling the Potential of Ketogenic Diet in Psychiatry

Type: Scoping Review
Author(s): Manzo F, Scalia A, Mendolicchio L, Boltri M, Brusa F, Apicella E
Journal/Source: Nutrition (Burbank, Los Angeles County, Calif.), Elsevier / ScienceDirect
Year: 2025
Volume/Issue: Vol. 134, Article 112710
DOI: 10.1016/j.nut.2025.112710
Diet Focus: Ketogenic Diet

Summary:

This scoping review, conducted per PRISMA-ScR guidelines using PubMed, Scopus, and EBSCOhost, identified 58 initial records with 13 meeting eligibility criteria. The authors are affiliated with I.R.C.C.S. Istituto Auxologico Italiano's Experimental Laboratory for Metabolic Neurosciences Research, Piancavallo, Italy.

Key Findings: Within the gut-brain interaction framework, the KD (high-fat, low-carbohydrate, moderate-protein) has demonstrated potential across multiple psychiatric conditions. Evidence from case reports, case series, and pilot studies indicates benefits for: mood disorders (depression, bipolar disorder), psychotic disorders (schizophrenia), alcohol use disorder, and eating disorders. Notably, KD appears to reduce cravings in eating and alcohol use disorders by stabilizing brain metabolism and modulating addictive behaviors.

Tolerability: Implementing a KD in patients with mental disorders appears feasible and well-tolerated, resulting in both psychiatric symptom reduction and improvements in metabolic health. The authors highlight the safety of KD even in patients with addictive-like eating disorders as a particularly noteworthy finding warranting further clinical investigation.

Citation: Manzo F, Scalia A, Mendolicchio L, Boltri M, Brusa F, & Apicella E. (2025). Keto therapy -- unveiling the potential of ketogenic diet in psychiatric care: A scoping review. Nutrition, 134, 112710. PMID: 40043464. <https://doi.org/10.1016/j.nut.2025.112710>

Synthesis & Key Takeaways

The collective body of research reviewed in this compilation points to a meaningful and growing connection between dietary patterns -- particularly the Mediterranean diet (MedDiet) and the ketogenic diet (KD) -- and mental health outcomes. Below are the overarching themes:

1. Mediterranean Diet & Mental Health

The MedDiet is consistently associated with reduced depressive and anxiety symptoms across observational and interventional studies. Its anti-inflammatory and antioxidant properties, along with gut-brain axis modulation, are the most cited mechanistic pathways. The Cambridge systematic review (2026) covering 104 studies provides the strongest current evidence base.

2. Ketogenic Diet as a Neuropsychiatric Intervention

The KD is emerging as a potential non-pharmacological adjunct for conditions including treatment-resistant depression, bipolar disorder, schizophrenia, anxiety, autism spectrum disorder, and eating/alcohol use disorders. Its mechanisms -- improved mitochondrial function, reduced neuroinflammation, GABA/glutamate modulation, and provision of ketones as an alternative brain fuel -- are biologically plausible and increasingly supported by clinical data.

3. The Field of Metabolic Psychiatry

Both diets underscore a paradigm shift in psychiatry toward metabolic and nutritional approaches. The brain's metabolic health -- glucose utilization, insulin sensitivity, mitochondrial function -- appears central to psychiatric vulnerability. Metabolic psychiatry, led by researchers such as Dr. Shebani Sethi at Stanford, is formalizing this connection.

4. Evidence Quality & Clinical Translation

The highest-quality evidence to date is the 2026 JAMA Psychiatry RCT, which confirmed significant antidepressant effects of the KD vs. control at 6 weeks ($P=0.05$; Cohen's $d=-0.68$) in treatment-resistant depression. However, most KD psychiatric research remains at the level of case reports and pilot trials. Large-scale RCTs with long follow-up periods are needed before broad clinical recommendations can be made.

5. Safety & Tolerability

Both dietary approaches appear safe and well-tolerated in mental health populations. No serious adverse events were reported in the reviewed clinical trials. Multidisciplinary support (dietitians, psychiatrists) is recommended when implementing KD in psychiatric care settings.

Disclaimer:

This document is a research compilation for informational and educational purposes only. It does not constitute medical advice. Consult a qualified healthcare professional before making any dietary or treatment decisions.