

Research Roundup – May 2025

New this month in therapeutic carbohydrate reduction and metabolic health.

Curated by

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Metabolic Studies

1. Ahmed, N.R. *et al.* (2025) 'Low-carbohydrate diet: a promising strategy for type 2 diabetes management among Egyptian patients', *The Egyptian Journal of Internal Medicine*, 37(1), p. 67. Available at: <https://doi.org/10.1186/s43162-025-00456-3>.
2. Barrea, L. *et al.* (2025) 'Medical Nutrition Therapy in Dermatological Diseases: A Joint Consensus Statement of [multiple groups]', *Current Obesity Reports*, 14(1), p. 42. Available at: <https://doi.org/10.1007/s13679-025-00630-2>.
3. Cannarella, R. *et al.* (2025) 'Effects of ketogenic diets on polycystic ovary syndrome: a systematic review and meta-analysis', *Reproductive Biology and Endocrinology*, 23(1), p. 74. Available at: <https://doi.org/10.1186/s12958-025-01411-1>.
4. Guarnotta, V. *et al.* (2025) 'Effects of the ketogenic diet compared to the mediterranean diet in patients with acromegaly', *Endocrine Abstracts*, 110. Available at: <https://doi.org/10.1530/endoabs.110.P575>. ABSTRACT
5. Lan, J. *et al.* (2025) 'Effect of dietary carbohydrate intake on glycaemic control and insulin resistance in type 2 diabetes: A systematic review and meta-analysis', *Asia Pacific Journal of Clinical Nutrition*, 34(3), pp. 282–297. Available at: [https://doi.org/10.6133/apjcn.202506_34\(3\).0003](https://doi.org/10.6133/apjcn.202506_34(3).0003).
6. Naeini, F. *et al.* (2025) 'MCT-modified ketogenic diet as an adjunct to standard treatment regimen could alleviate clinical symptoms in women with endometriosis', *BMC Women's Health*, 25, p. 232. Available at: <https://doi.org/10.1186/s12905-025-03798-w>.
7. Neema, S. *et al.* (2025) 'Efficacy of Intermittent Fasting in the Management of Chronic Plaque Psoriasis: A Phase IIb Clinical Trial', *Indian Dermatology Online*

Journal, 16(3), pp. 389–396. Available at:

https://doi.org/10.4103/idoj.idoj_635_24.

8. Ranjbar, M. et al. (2025) 'Effects of intermittent fasting diet in overweight and obese postmenopausal women with rheumatoid arthritis: A randomized controlled clinical trial', *Complementary Therapies in Medicine*, 91, p. 103189. Available at: <https://doi.org/10.1016/j.ctim.2025.103189>.
9. Rittig, N. et al. (2025) 'Ketone supplementation acutely lowers androgen and glucose levels in women with polycystic ovary syndrome (PCOS): A randomised clinical trial', *European Journal of Endocrinology*, p. lvaf106. Available at: <https://doi.org/10.1093/ejendo/lvaf106>.
10. Tini, S. et al. (2025) 'VLCKD improves MASLD and metabolic dysfunction in patients with type 2 diabetes and obesity', *Endocrine Abstracts*, 110. Available at: <https://doi.org/10.1530/endoabs.110.P771>. ABSTRACT
11. Wang, Y.-T. et al. (2025) 'A 90 g/day low-carbohydrate diet improved glycemic control without decreasing frailty in older patients with type 2 diabetes: A secondary analysis of a randomized controlled trial', *Journal of Diabetes Investigation*, n/a(n/a). Available at: <https://doi.org/10.1111/jdi.70083>.

General Reviews

1. Bruggen, F.H.V. and Diamond, D.M. (2025) 'Is Targeting LDL-C Levels Below 70 mg/dL Beneficial for Cardiovascular and Overall Health? A Critical Examination of the Evidence', *Journal of Clinical Medicine*, 14(10), p. 3569. Available at: <https://doi.org/10.3390/jcm14103569>.
2. Garg, R. et al. (2025) 'Intermittent Fasting and Weight Management at Menopause', *Journal of Mid-life Health*, 16(1), pp. 14–18. Available at: https://doi.org/10.4103/jmh.jmh_227_24.
3. Giacco, A. et al. (2025a) 'The central benefit of physiologically induced ketogenic states', *The Journal of Physiology*, p. JP287462. Available at: <https://doi.org/10.1113/JP287462>.
4. Gurusamy, N. et al. (2025) 'Epigenetic regulation by ketone bodies in cardiac diseases and repair', *Canadian Journal of Physiology and Pharmacology*, p. cjpp-2024-0270. Available at: <https://doi.org/10.1139/cjpp-2024-0270>.
5. Heslop, L.L. and Wright, D.E. (2025) 'Modulation of Pain by Ketones: A Mini Review', *American Journal of Physiology-Cell Physiology*, p. ajpcell.00305.2025. Available at: <https://doi.org/10.1152/ajpcell.00305.2025>. PDF
6. Lair, H. et al. (2025) 'Carnivore and Ketogenic-like Diets: Proposed Alternatives for Mitigating and Treating Pediatric Obesity', *Cureus* [Preprint]. Available at: <https://doi.org/10.7759/cureus.83461>.

7. Sanlier, N. and Baltacı, S. (2025) 'Therapeutic Applications of Ketogenic Diets in Lipedema: A Narrative Review of Current Evidence', *Current Obesity Reports*, 14(1), p. 49. Available at: <https://doi.org/10.1007/s13679-025-00642-y>.
8. Tabatabaei Dakhili, S.A. et al. (2025) 'The multifaceted roles of ketones in physiology', *Experimental Physiology* [Preprint]. Available at: <https://doi.org/10.1113/EP092243>.

Neurology

1. Cavestro, C. (2025) 'Metabolic Dysfunction and Dietary Interventions in Migraine Management: The Role of Insulin Resistance and Neuroinflammation—A Narrative and Scoping Review', *Brain Sciences*, 15(5), p. 474. Available at: <https://doi.org/10.3390/brainsci15050474>.
2. Donnard, N. et al. (2025) 'An international survey on withdrawing the ketogenic diet therapy for epilepsy', *Epilepsy & Behavior*, 171, p. 110481. Available at: <https://doi.org/10.1016/j.yebeh.2025.110481>.
3. Faltersack, K. et al. (2025) 'Ketogenic diet therapy for epilepsy during pregnancy and lactation: An international survey exploring clinician perspectives', *Epilepsia Open*, p. epi4.70067. Available at: <https://doi.org/10.1002/epi4.70067>.
4. Li, Z. et al. (2025) 'Unraveling Spinal Cord Injury Nutrition: Effects of Diet on the Host and Microbiome', *Advances in Nutrition*, 0(0). Available at: <https://doi.org/10.1016/j.advnut.2025.100448>.
5. Taoulost, S. et al. (2025) 'Caregivers' Perceptions and Usage of Ketogenic Diet for ASD, PWS and RTT: A Pilot Study and Mini-Review', *Current Treatment Options in Psychiatry*, 12(1), p. 22. Available at: <https://doi.org/10.1007/s40501-025-00349-w>.

Preclinical studies

1. Cui, S. et al. (2025) 'Fasting-induced ketogenesis sensitizes bacteria to antibiotic treatment', *Cell Metabolism*, p. S1550413125002165. Available at: <https://doi.org/10.1016/j.cmet.2025.04.006>.
2. Wei, Z. et al. (2025) ' β -hydroxybutyrate inhibits Plasmodium falciparum development and confers protection against malaria in mice', *Nature Metabolism*, pp. 1–14. Available at: <https://doi.org/10.1038/s42255-025-01302-0>.
3. Weng, X. et al. (2025) 'Ketogenic diet and β -hydroxybutyrate inhibit HDAC1 to preserve vascular smooth muscle cell function in thoracic aortic aneurysm', *Journal of Advanced Research*, p. S2090123225003534. Available at: <https://doi.org/10.1016/j.jare.2025.05.035>.