

Research Roundup – February 2025

New this month in therapeutic carbohydrate reduction and metabolic health.

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Metabolic Studies

1. Buchanan, L. *et al.* (2025) 'TOWARD, a metabolic health intervention, demonstrates robust 1-year weight loss and cost-savings through deprescription', *Frontiers in Nutrition*, 12. Available at: <https://doi.org/10.3389/fnut.2025.1548609>.
2. Colledge, B.S. *et al.* (2025) 'Is the very low carbohydrate diet safe for individuals with chronic kidney disease?', *Journal of Metabolic Health*, 8(1), p. 10. Available at: <https://doi.org/10.4102/jmh.v8i1.115>.
3. Errigo, A. *et al.* (2025) 'The Cholesterol Paradox in Long-Livers from a Sardinia Longevity Hot Spot (Blue Zone)', *Nutrients*, 17(5), p. 765. Available at: <https://doi.org/10.3390/nu17050765>.
4. Katsuya, S. *et al.* (2025) 'Effect of D-β-hydroxybutyrate on sleep quality in healthy participants: a randomized, double-blind, placebo-controlled study', *Bioscience, Biotechnology, and Biochemistry*, p. zba017. Available at: <https://doi.org/10.1093/bbb/zba017>.
5. Lundanes, J. *et al.* (2025) 'Changes in cytokines and fibrotic growth factors after low-carbohydrate or low-fat low-energy diets in females with lipedema', *Current Developments in Nutrition*, p. 104571. Available at: <https://doi.org/10.1016/j.cdnut.2025.104571>.
6. Stephens, E.B. *et al.* (no date) 'A Randomized Open-Label, Observational Study of the Novel Ketone Ester, Bis Octanoyl (R)-1,3-Butanediol, and Its Acute Effect on β-Hydroxybutyrate and Glucose Concentrations in Healthy Older Adults', *Journal of Nutrition in Gerontology and Geriatrics*, 0(0), pp. 1–20. Available at: <https://doi.org/10.1080/21551197.2025.2466163>.
7. Turetta, C. *et al.* (2025) 'Impact of Ketogenic Diet on Weight, Metabolic, and Endocrine Parameters in Women with Polycystic Ovary Syndrome: A

Systematic Review and Meta-Analysis', *Gynecologic and Obstetric Investigation*, pp. 1–22. Available at: <https://doi.org/10.1159/000543941>.

8. Verde, L. et al. (2025) 'Efficacy and Safety of Phase 1 of Very Low Energy Ketogenic Therapy (VLEKT) in Subjects with Obesity and Mild Renal Impairment', *Nutrients*, 17(4), p. 721. Available at: <https://doi.org/10.3390/nu17040721>.

General reviews

1. Athinarayanan, S.J. and Volek, J.S. (2025) 'Mitigating muscle loss during weight loss: can nutritional ketosis make a difference? A call for more research', *Obesity*, n/a(n/a). Available at: <https://doi.org/10.1002/oby.24235>.
2. Biesiekierska, M. et al. (2025) 'The Impact of Ketogenic Nutrition on Obesity and Metabolic Health: Mechanisms and Clinical Implications', *Nutrition Reviews*, p. nuaf010. Available at: <https://doi.org/10.1093/nutrit/nuaf010>.
3. Luo, C. et al. (2025) 'Ketogenic diet and β -hydroxybutyrate in osteoporosis: current progress and controversy', *Frontiers in Nutrition*, 12, p. 1508695. Available at: <https://doi.org/10.3389/fnut.2025.1508695>. (note: data against the KD from epilepsy studies is not fully generalisable due to population differences. Also see [Chang et al.](#) in neurology section below)
4. Paoli, A. (2025b) 'The Influence of Physical Exercise, Ketogenic Diet, and Time-Restricted Eating on De Novo Lipogenesis: A Narrative Review', *Nutrients*, 17(4), p. 663. Available at: <https://doi.org/10.3390/nu17040663>.
5. Roberts, C.G.P. et al. (2025) 'Illnesses associated with ketosis including diabetic ketoacidosis during very low carbohydrate and ketogenic diets', *Diabetes, Obesity and Metabolism*, n/a(n/a). Available at: <https://doi.org/10.1111/dom.16252>.

Neurology

1. Abrego-Guandique, D.M. et al. (2025) 'Ketogenic diet and microRNAs: focus on cognitive function', *Frontiers in Nutrition*, 12. Available at: <https://doi.org/10.3389/fnut.2025.1545832>.
2. Chang, J., Schimpf, S. and Phitsanuwigong, C. (2025) 'Impact of modified Atkins diet on growth in infants and children with epilepsy', *Epileptic Disorders*:

International Epilepsy Journal with Videotape [Preprint]. Available at: <https://doi.org/10.1002/epd2.70002>.

3. Farrow, M. et al. (2025) 'The Effect of a Low-Glycemic Index Diet on Postprandial Hypotension in Individuals With Chronic Spinal Cord Injury: Results From a Pilot Study', *Topics in Spinal Cord Injury Rehabilitation*, 31(1), pp. 30–41. Available at: <https://doi.org/10.46292/sci24-00044>.
4. Ni, D. et al. (2025) 'High-Fat and Low-Carbohydrate Dietary Environments Are Linked to Reduced Idiopathic Epilepsy Incidence and Prevalence', *Annals of Clinical and Translational Neurology*, n/a(n/a). Available at: <https://doi.org/10.1002/acn3.70017>.
5. Qiao, X. et al. (2025) 'Exploring physiological beta-hydroxybutyrate level in children treated with the classical ketogenic diet for drug-resistant epilepsy', *Acta Epileptologica*, 7(1), p. 10. Available at: <https://doi.org/10.1186/s42494-024-00199-8>.

Metabolic Psychiatry

1. Boltri, M. et al. (2025) 'Keto-Therapy: Unveiling the Potential of Ketogenic Diet in Psychiatric Care - A Scoping Review', *Nutrition*, p. 112710. Available at: <https://doi.org/10.1016/j.nut.2025.112710>. ABSTRACT
2. Campbell, I.H. et al. (2025) 'A pilot study of a ketogenic diet in bipolar disorder: clinical, metabolic and magnetic resonance spectroscopy findings', *BJPsych Open*, 11(2), p. e34. Available at: <https://doi.org/10.1192/bjo.2024.841>.
3. Huizer, K. et al. (2025) 'Potential benefits of ketone therapy as a novel immunometabolic treatment for schizophrenia', *Psychiatry Research*, 345, p. 116379. Available at: <https://doi.org/10.1016/j.psychres.2025.116379>.
4. Laurent, N., Bellamy, E.L., Tague, K.A., et al. (2025) 'Ketogenic metabolic therapy for schizoaffective disorder: a retrospective case series of psychotic symptom remission and mood recovery', *Frontiers in Nutrition*, 12, p. 1506304. Available at: <https://doi.org/10.3389/fnut.2025.1506304>.
5. Laurent, N., Bellamy, E.L., Hristova, D., et al. (2025) 'Ketogenic metabolic therapy in the remission of chronic major depressive disorder: a retrospective case study', *Frontiers in Nutrition*, 12. Available at: <https://doi.org/10.3389/fnut.2025.1549782>.